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Incorporating Environmental Stimuli into the Service Profit Chain in a
Retail Grocery Context: A Structural Equation Modelling Approach

Treasa Kearney

A thesis submitted in fulfilment of the requirements for the award of Doctor of
Philosophy

College of Business
Dublin Institute of Technology
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Supervisors

Dr. Joseph Patrick Coughlan
Aileen Kennedy

Abstract

Vargo and Lusch (2006, 2008a, 2008b), suggest that a core premise of services is the interaction between employees and customers. The role employees' play in the service industry is clearly acknowledged by Heskett et al. (1994), the proposers of the Service Profit Chain (SPC). The interaction between employees and customers occurs in a service environment: termed the 'servicescape' by Bitner (1992) in the marketing literature. There is recognition in the literature that the servicescape, also known as environmental stimuli, impacts customers and employees perceptions, emotions and behavioural responses (Wiley, 1991, Bitner, 1992, Homburg & Stock, 2004, Kim & Moon, 2009, Schneider et al., 2009). However, there is a paucity of research investigating employee responses (Parish et al, 2008, Skandrani et al. 2011).

In examining employee and customer responses in a grocery retail environment, several streams of literature are extensively reviewed to develop an integrated model. The fundamentals of the model derive from the Stimulus Organism Response (SOR) framework, developed by Mehrabian and Russell (1974), which is held in high esteem in the environmental psychology literature. Furthermore, the service marketing literature and the work climate literature have foundations stemming from the SOR. In reviewing the literatures of environmental psychology, service marketing and work climate, gaps are identified, resulting in the proposed model incorporating core elements from the SPC framework (Heskett et al. 1994, Loveman, 1998), the servicescape model (Bitner, 1992) and the work climate literature (Davis, 1984; Kuenzi & Schminke, 2009).

As customer and employee responses are fundamental to this research, dyadic data was collected from employees and customers in a convenience grocery store setting. A predominantly positivistic view was taken and questionnaires were administered to employees, customers and managers. The integrated model was rigorously tested using a two-step approach proposed by Anderson and Gerbing (1988). Once the factors were confirmed using Confirmatory Factor Analysis (CFA), Structural Equation Modelling (SEM) was used to maximise reliability and validity of the model.

Several theoretical contributions are highlighted; firstly that employee environmental stimuli construct contained five sub-factors, these were termed, E-design, E-music, E-lighting, E-olfaction and E-layout. This highlights the complexities of the environmental stimuli for employees. Furthermore this research found a significant direct link between employee environmental stimuli and employee satisfaction. Considering the literature examining the effects of environmental stimuli on employee behaviour is astonishingly scant (Skandrani et al., 2011), this is an important contribution to several literature streams. Secondly, examining a global configuration of the environmental stimuli can provide a fuller framework for understanding and exploring customer and employee behavioural responses. In particular, customer environmental stimuli should be examined as a multidimensional construct, consisting of five sub-factors, Design, Music, Lighting, Olfaction and Layout. In addition, as the environmental stimuli construct is found to be separate from service quality and serves as an antecedent to service quality; this is a significant contribution to the debate surrounding the multidimensionality of the service quality construct.

Declaration

I certify that this thesis which I now submit for examination for the award of Doctor of Philosophy, is entirely my own work and has not been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work. This thesis was prepared according to the regulations for postgraduate study by research of the Dublin Institute of Technology and has not been submitted in whole or in part for an award in any other Institute or University. The work reported on in this thesis conforms to the principles and requirements of the Institute's guidelines for ethics in research.

Signature _____ Date: _____

Candidate

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Le chríochnú, ba mhaith liom, go háirithe buíochas a ghabháil do m'athar don tacaíocht a thug tú dom thar na blianta. Freisin, buíochas do mo clann go léir don cabhair a thug sibh dom.

Abbreviation Table

| | |
|-----|--------------------------------|
| ASA | Attraction-Selection-Attrition |
| CFA | Confirmatory Factor Analysis |
| CLA | Customer Loyalty Attitudinal |
| CLB | Customer Loyalty Behaviour |
| IM | Internal Marketing |
| PAD | Pleasure, Arousal, Dominance |
| PC | Psychological Climate |
| PCg | Psychological Climate-general |
| SEM | Structural Equation Modelling |
| SPC | Service Profit Chain |

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INTRODUCTION

Ni dhéanfaidh smaoineamh an treabhadh duit...

(Irish Proverb*)

*Direct translation

‘You’ll never plough a field turning it over in your mind’, meaning you have to make a start: while it is wise to plan ahead, to think of the best way to accomplish a goal, you should not dwell too long on it!

In the last decade, Ireland has gone through a turbulent economic time. The ‘Celtic tiger’ boom, from the 1990s to the early 2000s, brought about significant changes in the Irish service sector and in particular the retail sector. This saw the growth of Tesco in Ireland and aggressive expansion of Lidl and Aldi, the German based grocery retailers (EIU, 2011). During this period of the Celtic tiger, the retail sector accelerated in sales, however 2008 saw a worldwide economic crash resulting in a sharp decline in retail sales. Irish food retail sales fell from a high of €11,393 million in 2007 to €10.370 million in 2010 (BordBia, 2011). However, the Irish food retail is set to grow by 1% a year through to 2014, creating new opportunities for Irish retailers (BordBia, 2011).

Within Ireland, the grocery retail sector is moderately concentrated with five retailers who account for 61% of total in sales in 2010 (EIU, 2011); the top three being Musgraves, Tesco and BWG (EIU, 2011). These food retailers face competition from a wide range of sources. ‘Shoppers are faced with a number of choices in terms of food shopping alternatives, including supermarkets, convenience (local) stores, specialist shops (butchers, bakery, etc.) and food markets’ (Doherty and Nelson, 2008, p. 349). Of particular importance to competition is the convenience or local stores. According to the recent BordBia (2011, p. 7) report ‘convenience in particular being the battleground between the major retailers in the next five years’. The report notes that though the convenience sector will grow, the share held by independents is declining.

The significance of the grocery retail stores to the future of the Irish economy should not be viewed lightly. Many convenience grocery stores have adapted their stores to stay ahead of competition. Checkout (2010, p. 25) noted that ‘creating the right impression as soon as customers walk in the door is paramount’ and that elements of the

store such as lighting and television screens ‘all adds to the overall shopping experience’ (Checkout, 2011, p. 23). A key component of the shopping experience therefore is creating a suitable atmosphere for the customer. Kotler (1973) famously used the term ‘atmosphere’ to describe the manipulation of environmental stimuli such as music, colour, lighting and layout. He suggested that a store’s atmospheric cues (or what is termed ‘environmental stimuli’) can be controlled to influence customer behaviours. Doherty and Nelson (2008) concurred and recommended that in-store design should be adopted in order to influence customers in grocery retail stores.

Given that the grocery retail industry is moderately concentrated and that there appears to be opportunities, in particular for convenience grocery stores, convenience grocery stores were chosen for the research. This research pays particular attention to store shopping experience and how environmental stimuli impact on behaviours in the store. This research attempts to explore how the stores environmental stimuli influences customer’s behaviour but also how it influences employee’s behaviour in a grocery retail environment.

Particular attention is given to Bitner’s (1992) servicescape model. Bitner (1992) coined the term ‘servicescape’ to collectively describe the environmental stimuli associated with service environments. Bitner (1992) identified three dimensions of environmental stimuli: Ambience, Space & Function, and Signs, Symbols & Artefacts, and suggested that they influence customer and employee behaviour. Considerable research has examined these three dimensions as to how they influence customers but there is a considerable lack of knowledge in understanding how these dimensions can influence employees (Parish et al., 2008). Central to the service economy are the employees.

Grocery retail stores are the largest component of the Irish service economy and account for 11% of employment (EIU, 2011). Given the nature of the service economy, it is essential to understand the behaviours of employees in a grocery retail environment.

A Service Dominant Logic (SDL) paradigm is reshaping the way marketers view the economy (Yan et al., 2010). SDL attempts to reframe the purpose of organisations, suggesting a shift to viewing the economy as a service orientated marketplace, and concentrates on co-creation of value (Brodie et al., 2011, Vargo, 2011). SDL endeavours to show that central to the economy is 'service'. In doing so, SDL highlights the necessity of skilled and knowledgeable employees in co-creating value with their customers. The current research delves into the relationship that employees and customers have within service environment and how environmental stimuli impacts on their emotions and behaviours.

In focusing on customers and employees, Heskett et al.'s (1994) Service Profit Chain (SPC) provides a framework along with Bitner's (1992) servicescape model on which to build the research. Core to the SPC is that satisfied employees have an effect on customers. The SPC suggests a causal chain linking employee satisfaction to financial performance through the mediating constructs of customer satisfaction, customer loyalty and employee loyalty (Loveman, 1998). Doherty and Nelson (2008) identified that loyalty is a major challenge particular for grocery retailers. Lombart and Louis (2012, p. 644) concurred and suggested that 'faced with a highly competitive environment, retailers are all concerned to build customers' loyalty'. Loyalty in grocery retail context is both an employee and customer behaviour.

As mentioned, customers have been the focus of atmospheric research, with the servicescape model being the primary research framework (Ezeh and Harris, 2007). However, employees are clearly central to the service economy in Ireland and are at the core of the SPC model. Though this is the case, limited research examines an employee's atmosphere. Davis (1984) indicated that an employee's atmosphere consisted of three dimensions: physical structure, physical stimuli and symbolic artefacts. He specified the term physical environment to describe the atmospheric cues, which can also be referred to as environmental stimuli, impacting employees.

Research Objectives

This research proposes a model to extend the current body of literature that surrounds environmental stimuli. This thesis extends current understanding of environmental stimuli by examining the servicescape model (Bitner 1992), the physical work environment from an employee perspective (Davis, 1984; Kuenzi & Schminke, 2009) and combining them with the Service Profit Chain (SPC) developed by Heskett et al. (1994). The main aim of the research is to investigate the impact of environmental stimuli on the emotional responses of both the customer and the employee, the implications that these stimuli have on their behavioural responses and the subsequent effect on the financial performance. In reviewing the different literatures this research aims to contribute to each of the gaps that are identified next.

The first gap relates to the SPC as outlined by Heskett et al. (1994). Despite the acceptance in the literature of many of the links within the SPC, there is a lack of comprehensive research examining all the links in a single study (Loveman, 1998, Chi and Gursoy, 2009). In particular there is debate over the core link of employee-customer satisfaction, called the 'satisfaction mirror', in the literature. Through the use of dyadic data, where customers are paired with the relevant employee that served them, this research explores this core link and challenges the accepted views.

Secondly, research relating to the servicescape model has been fragmented in nature. The majority of research has examined the environmental stimuli of the servicescape in isolation rather than as a global configuration as proposed by Bitner (1992). Some research has examined two factors of the servicescape, such as colour and lighting (Babin et al., 2003, Nitse et al., 2004) or a general servicescape factor (Reimer and Kuehn, 2005). Forthcoming research by Hooper et al. (2013) highlights the need to extend the current body of research by examining the global configuration of the environmental stimuli (colour, music, lighting, cleanliness, layout and design) in a single study. This research examines the global configuration as set out by Bitner (1992).

Thirdly, Objective one is to explore the links within the SPC. There are several links with the SPC, specifically: employee satisfaction-employee loyalty, employee satisfaction-customer satisfaction; employee loyalty-customer satisfaction; employee loyalty-service quality; service quality-customer satisfaction; customer satisfaction-customer loyalty; customer loyalty-financial performance; and employee loyalty-financial performance. Core to the argument of the SPC is the employee satisfaction

customer satisfaction link, often referred to as the ‘satisfaction mirror’ (Heskett et al., 1997). There has been mixed findings relating to the significance of the link in service settings. This research will use dyadic data to determine the relationship. In using dyadic data, employee responses can be matched to customer responses providing considerable insight into their direct relationship. Structural Equation Modelling (SEM) will be used to assess the nature of these relationships.

Objective two is to evaluate the relationship between environmental stimuli and service quality. There has been debate in the literature regarding the relationship of environmental stimuli and service quality. Some academics have proposed that some elements of environmental stimuli form part of the service quality dimension (Parasuraman et al., 1988, Brady and Cronin Jr, 2001, Pollack, 2009), whilst others suggest that elements of the environmental stimuli are separate to service quality (Baker et al., 1994, Reimer and Kuehn, 2005, Hooper et al., 2013).

Objective three is to assess the link between environmental stimuli and the emotional responses of customers and employees. A previous research has assumed that emotions can be caused by exposure to environmental stimuli (Donovan and Rossiter, 1982, Wakefield and Blodgett, 1994, Hightower et al., 2002, Kim and Moon, 2009). This research examined all three affective states of Pleasure, Arousal and Dominance (PAD) that were proposed by Mehrabian and Russell (1974), while the majority of research examining PAD has focused on the Pleasure and Arousal dimensions (Wirtz and Bateson, 1999, Bigné et al., 2005, Mattila and Wirtz, 2006). To date, the Dominance dimension has been largely ignored. Based on the need to understand the role emotions

play in understanding employee and customer satisfaction, all three affective emotional states were examined.

Layout of the Thesis

Figure 1 shows the layout of the thesis and how each of the chapters relates to each other and the logical flow. Each of the chapters will be signposted and how they link will be briefly discussed. The first four chapters of the thesis are the literature chapters. The thesis begins by reviewing the service marketing literature. Within this literature, the SPC is presented and each of the constructs relating to the SPC (customer satisfaction, employee satisfaction, employee loyalty, customer loyalty and service quality) are explained in detail in order to gain a better understanding of the SPC. This research draws from the main links within the SPC and forms a fundamental basis to the proposed model.

The second chapter relates to environmental psychology. The Stimulus Organism Response (SOR) model will be looked at in detail as it forms the foundation for the Mehrabian and Russell (1974) model. This model plays an important theoretical role in the services literature. The Lazarus (1991) model is discussed as it has been suggested as an alternative to using the Mehrabian and Russell (1974) framework to understanding behaviour. The role that the dominance dimension plays will be reviewed as this relates to objective three. This chapter also forms a foundation for chapter three and four.

The third chapter relates to Bitner's (1992) servicescape model. This chapter focuses in on the S of the SOR. Bitner's (1992) three dimensions of the servicescape (Ambience,

Layout & Function, and Sign, Symbols & Artefacts) are examined in detail. The vast majority of research relating the servicescape focuses on the customer response and this chapter will examine customer responses. The focus of this chapter is on an in depth examination of the extent of the influence of environmental stimuli on customers.

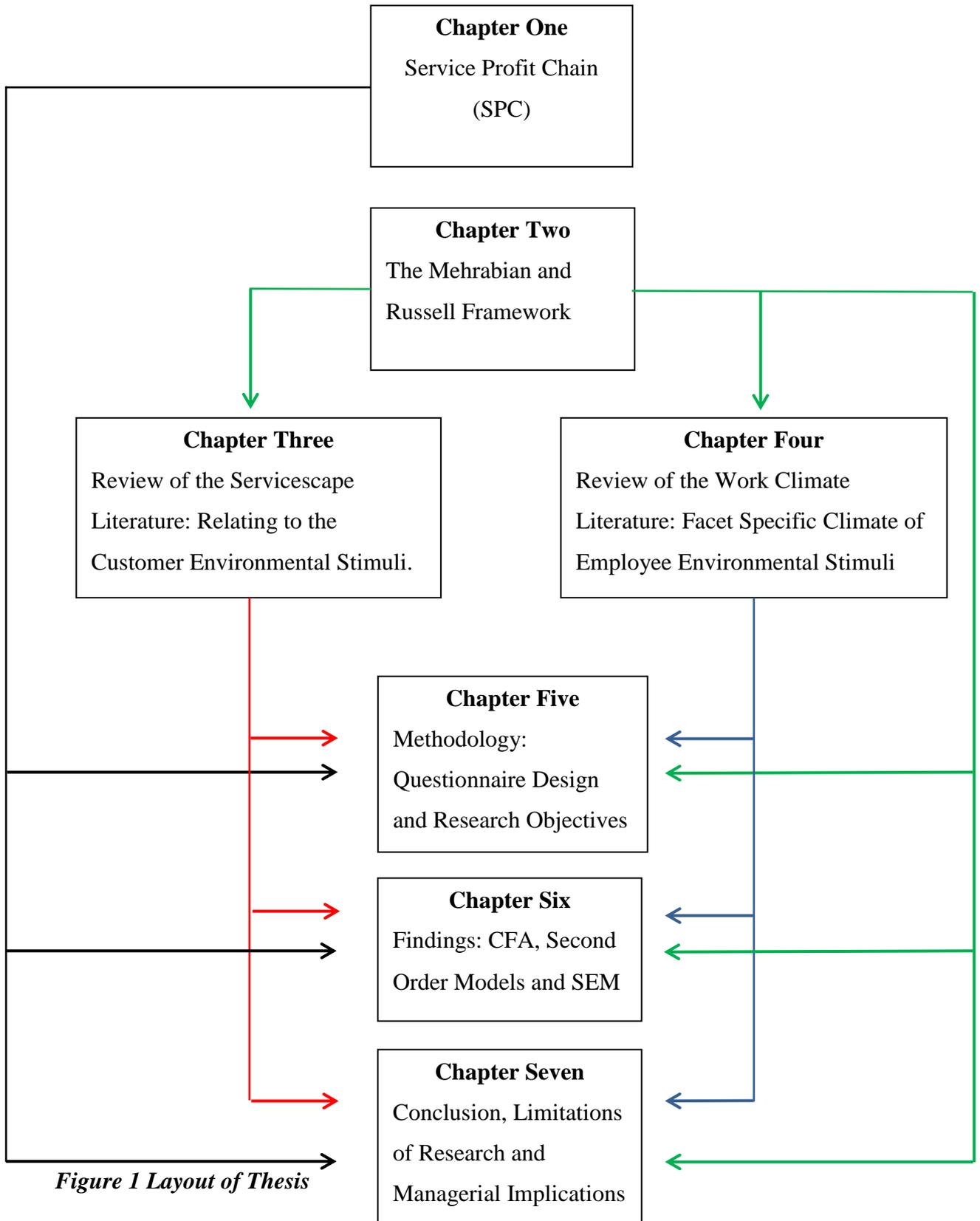
The fourth chapter relates to the work climate literature. To date, the work climate literature had examined the work environment on a global level, or at a facet specific level. The literature is very broad and a brief background of where work climate literatures have stemmed from is given. The key foundations of perceptions, organisation and psychological climates will be considered. The facet specific climate of employee environmental stimuli will be discussed at the end of this chapter. The focus of this chapter is to highlight the absence of research on the influence of environmental stimuli on employees.

Each of the four literature chapters relate to chapter five. This is the research methodology chapter and where the proposed model is outlined. This chapter begins with the research approach that is being taken and the process that this will involve. The research framework is outlined with the aim of the research. The three objectives are explained along with the 13 hypotheses that form the proposed model. The design and development of the questionnaire is examined. This chapter discusses the use of dyadic data in the research and how it was aggregated to the employee level. The chapter finishes with a discussion of SEM and the fit statistics.

Chapter six relates to the findings of the confirmatory factor analysis and SEM. This chapter carries out the two step approach as proposed by Anderson and Gerbing (1988).

The first step confirms the constructs that have been discussed in chapters one, two, three and four. The second step involved testing the adequacy of all relationships in the model through the use of SEM in LISREL 8.8.

Chapter seven guides the aim of the research to a close. The gaps in the literature are re-highlighted and how the research examined these gaps is discussed. The key theoretical contributions and implications are specified. This chapter examines the limitations of the research and proposes direction for further research. The thesis concludes with implications for managers.



1. CHAPTER 1 The Service Profit Chain (SPC)

When you're smilin', keep on smilin'

The whole world smiles with you.

'When You're Smiling', Larry Shay, Mark Fisher and Joe Goodwin

1.1 Introduction

The Service Profit Chain (SPC) was first introduced by Heskett et al. (1994). Primarily based on analysis from service organisations, the aim of the SPC was to link internal employee satisfaction to financial outcomes. It suggests a causal chain linking employee satisfaction through to financial performance, through the mediating constructs of customer satisfaction, employee satisfaction, customer loyalty and employee loyalty (Heskett et al., 1994, Loveman, 1998). The interaction between the employee and customers is one of the core links within the SPC and relates to the concept that was termed 'satisfaction mirror' (Heskett et al., 1997). The satisfaction mirror will be examined along with the concepts of customer satisfaction, customer loyalty, service quality, employee satisfaction and employee loyalty which are key aspects within the SPC. Changes to the SPC will be examined first, followed by each of the links of the SPC. Each of the constructs will then be examined in more detail.

1.2 The SPC

The SPC indicates that by 'providing employees with a superior internal working environment is likely to lead to satisfied employees who are both loyal to the organization and able to provide the customer with an excellent service experience' (Chi and Gursoy, 2009, p. 245). See figure 1.1 for a diagram of the SPC. The yellow shaded area illustrates the service delivery system and operating strategy part of the model.

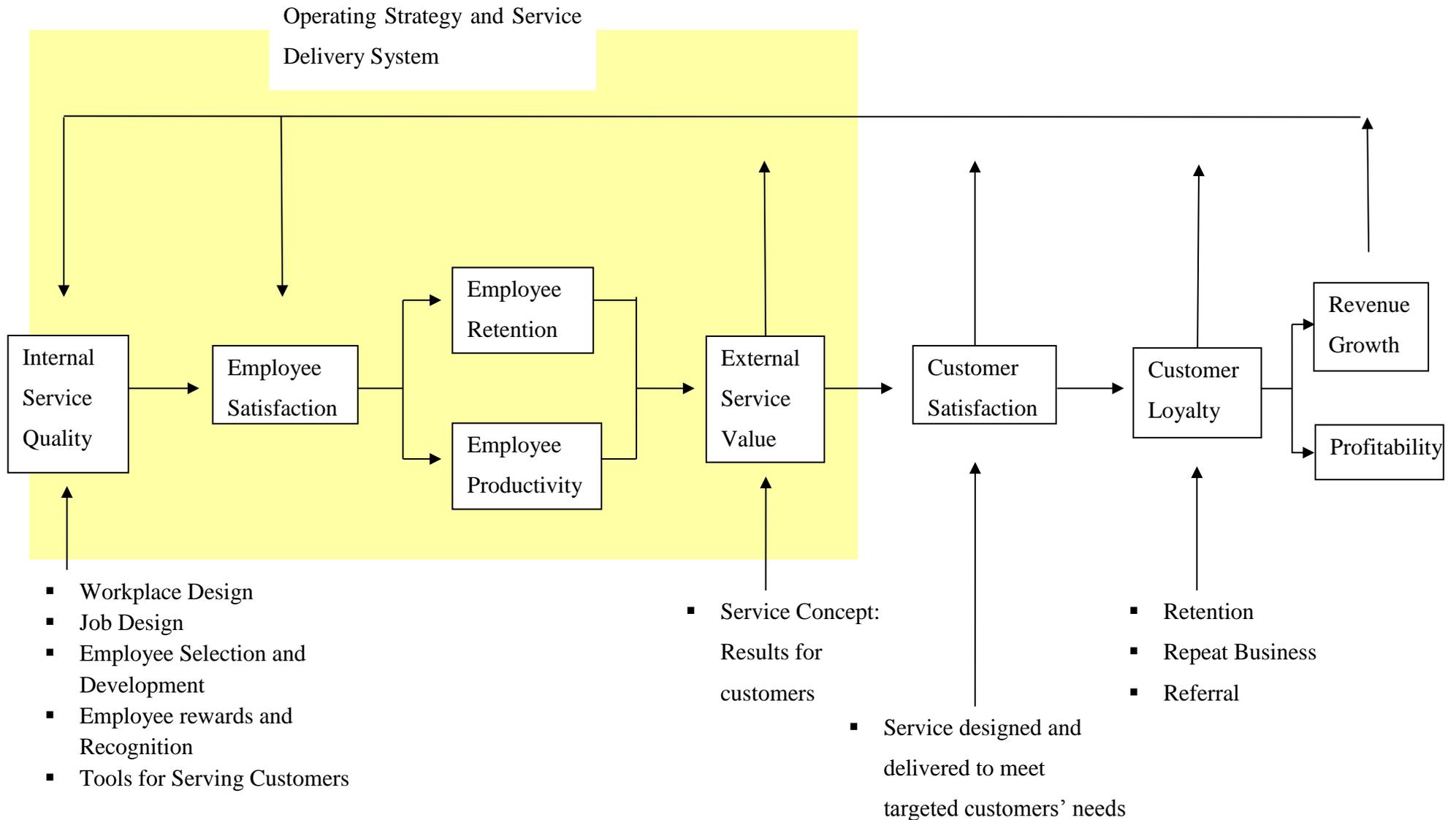


Figure 1.1 SPC Framework

Source: Heskett et al (1994, p. 166)

According to Heskett et al. (1994), employee satisfaction leads to employee loyalty, both of which are believed to contribute to customer satisfaction and customer loyalty. Though not directly depicted in this first SPC model, see figure 1.1, Heskett et al. (1994) do refer to employee loyalty as a key link in the SPC. The SPC then progresses through customer satisfaction to customer loyalty leading to revenue growth and profitability (Heskett et al., 1994, Loveman, 1998). Kamakura et al. (2002) noted that the SPC provides a much needed guide about the complex interrelationships among employee satisfaction, customer satisfaction and the financial performance. Maxham et al. (2008, p. 147) concurred and suggested that it is of high importance ‘to improve our understanding of how employee perceptions and behaviors influence customer evaluations and store performance.’ The SPC provides an integrative approach for organisations to better understand how their employees affect customer evaluations, customer behaviour and financial performance (Kamakura et al., 2002). Simply stated, the SPC asserts that satisfied employees ‘produce satisfied customer and satisfied customers tend to purchase more, increasing the revenue and profits of the organisation’ (Gelade and Young, 2005, p. 2).

Loveman (1998) refined his original model that he proposed with Heskett et al. (1994), see figure 1.2 for diagram of the updated SPC. The major change to the model was the exclusion of employee productivity; table 1.1 identifies the constructs that Loveman (1998) included in the updated model. Remarkably, Loveman (1998) does not specify why the changes were made from the original model. However, Loveman (1998, p. 25) does suggest ‘external service quality refers to performance in the delivery of specified customer outcomes, such as speed, accuracy of transactions, courtesy in frontline service’, thus suggesting that productivity relates to external service quality. In describing employee loyalty, Heskett et al. (1994, p. 167) relates it to employee

retention and suggest the ‘real cost of turnover is the loss of productivity’. Heskett et al. (1997) further illustrate the importance of the employee loyalty construct and relate productivity with output quality. This would appear similar to Loveman (1998) in relating service quality to productivity.

| Constructs (<i>Hesket et al. 1994</i>) | Constructs (<i>Loveman, 1998</i>) |
|--|---------------------------------------|
| Internal Service Quality | Internal Service Quality |
| Employee Satisfaction | Employee Satisfaction |
| Employee Retention | Employee Loyalty |
| <i>Employee Productivity*</i> | <i>Not identified in model</i> |
| External Service <i>Value</i> | External Service <i>Quality</i> |
| Customer Satisfaction | Customer Satisfaction |
| Customer Loyalty | Customer Loyalty |
| Revenue Growth | Revenue Growth & <i>Profitability</i> |
| <i>Profitability</i> | <i>Included with Revenue Growth</i> |

Table 1.1 Changes to the SPC

* Italics identify changes made to constructs

Though Heskett et al. (1994) referred to employee loyalty, they then depicted it as employee retention in their SPC model. Loveman (1998) depicts employee loyalty as employee loyalty in his SPC model. Throughout the literature, employee loyalty is considered to be a main link in the SPC (Loveman, 1998, Silvestro and Cross, 2000, Silvestro, 2002, Homburg et al., 2009, Yee et al., 2009, Yee et al., 2011).

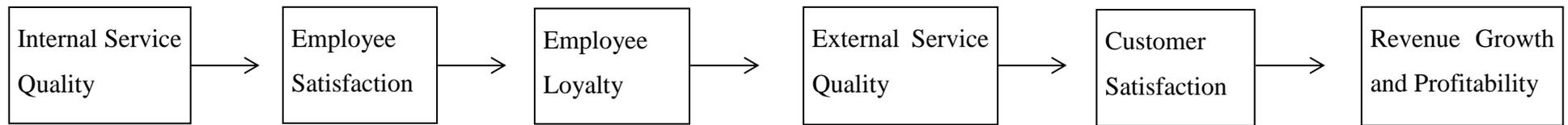


Figure 1.2 SPC Framework Updated
Source: Loveman (1998, p. 19)

In their framework, Heskett et al. (1994) refer to a term called 'external service value'. The external service value appears to act as a mediator between employee satisfaction and customer satisfaction. In his research, Loveman (1998) amends his and his colleagues' earlier SPC model and changes the external service value to 'external service quality'. Within the literature on the SPC, external service quality and external service value appear to be interchangeable (Loveman, 1998, Dean, 2004). Heskett et al. (1994) noted that external service value is what customers receive in the service delivery from the employee. Dean (2004) concurs and indicates that it is the positive environment for employees emphasised in the SPC that leads to 'value' for the customer. However, Brady and Roberston (2001) acknowledge that service value is separate to service quality. 'Specifically, value attributions are defined in part by what a customer "gets" from a service experience' (Brady and Cronin, 2001, p. 45). This research focusses on the SPC and, in doing so, explores the concept of service quality rather than service value. The final minor change to the model is that Loveman (1998) incorporates revenue growth with profitability.

In updating the model, Loveman (1998) uses slightly different terminology than was proposed in the original Heskett et al. (1994) SPC model. Similarly to previous research on the SPC (Silvestro and Cross, 2000, Kamakura et al., 2002, Silvestro, 2002, Yee et al., 2009, Yee et al., 2010, Yee et al., 2011), this updated model and terminology is used for the basis for this research. Table 1.2 gives a clarification of each of the constructs and the literatures they stem from. Further clarification and definition of the constructs will be given after discussing the links in the updated SPC model.

| <i>Constructs (Loveman, 1998)</i> | <i>Clarification</i> | <i>Literature</i> |
|---------------------------------------|--|---------------------------|
| Internal Service Quality | How the internal work environment influences employees attitudes and behaviours; can relate to work place design, job design, employee selection, (Heskett et al., 1994, Schulte et al., 2006) | Organisational Psychology |
| Employee Satisfaction | Pleasurable emotional response resulting from appraisal of one's job (Locke, 1976) | Organisational Behaviour |
| Employee Loyalty | The proportion of employees who stay committed to the organisation (Oliver, 1981) | Organisational Psychology |
| External Service Quality | Delivery of superior service relative to customers' expectations (Gazzoli et al., 2010) | Marketing |
| Customer Satisfaction | Pleasurable emotional response resulting from organisations meeting or surpassing customer expectations (Westbrook and Oliver, 1991) | Marketing |
| Customer Loyalty | Commitment to rebuy, repurchase or refer a friend to the organisation (Chi and Gursoy, 2009) | Marketing |
| Revenue Growth & Profitability | Relates to the financial performance of the organisation (Schneider et al., 2009) | Across literatures |

Table 1.2 Clarification of Constructs

1.3 SPC links

Past research in the SPC literature has given considerable insight into the different links of the SPC model (Rucci et al., 1998, Anderson and Mittal, 2000, Silvestro and Cross, 2000, Kamakura et al., 2002, Gelade and Young, 2005, Pritchard and Silvestro, 2005, Gummesson, 2007, Larivière, 2008, Homburg et al., 2009, Yee et al., 2009, Yee et al., 2010, Yee et al., 2011). A significant amount of research that has been carried out on the links is in the financial services sector (Kamakura et al., 2002). Loveman (1998) suggested that collecting data from banks is a good source of analysis as employee, customers and revenue are all accounted for at the same place.

Within the SPC literature, past empirical research has mainly focussed on isolated links in the SPC. Although widely used by practitioners, i.e. South West Airlines, Sears, the SPC's series of hypothesised relationships have 'not been rigorously tested using data that span all components of the model' (Loveman, 1998, p. 18). According to Maxham et al. (2008, p. 147), 'this narrow focus has also limited a more comprehensive test of the value chain'. Chi and Gursev (2009, p. 245) concurred and noted that 'even though both customer satisfaction and employee satisfaction and their retention have been studied extensively, impacts of employee satisfaction and customer satisfaction on financial performance measures have not received much attention'.

The entire chain has had limited research in any one study (Loveman, 1998, Chi and Gursev, 2009). Brown and Lam (2008) agreed and suggested that the financial significance of these interactions may not be fully appreciated yet. However, Yee et al. (2009, 2010, 2011) have been attempting to address this gap within a Chinese context and have also examined several service settings, such as hotels, catering and fashion retailing. Loveman (1998) notes that the evidence underlying the SPC has remained limited to case studies or to components of the SPC such as the link between employee satisfaction and customer satisfaction. The employee satisfaction and customer satisfaction link is the most widely researched and empirically tested of the links in the SPC (Dean, 2004). By examining the SPC in its totality, the links between employee satisfaction, customer satisfaction, customer loyalty, employee loyalty and the financial performance can be researched. The SPC proposes that each construct will ultimately impact financial performance in some form. As such, explaining the framework from the financial performance construct back to internal service quality will provide a more comprehensive overview of the entire SPC.

1.3.1 The Financial Performance and Customer/Employee Loyalty Links

The last link in Loveman (1998) SPC, as depicted in figure 1.2, is the financial performance link. This link suggests that customer loyalty will lead to higher financial performance, such as profits. Anderson and Mittal (2000, p. 116) pointed out that ‘customers may only become profitable to serve over time.’ When customers become repeat customers of an organisation, they reduce future transaction costs, customer acquisition costs and are more likely to adopt a company’s offering (Homburg et al., 2009). Loveman (1998, p. 18) concurred and noted that customer loyalty will have a positive affect on financial performance due to customer loyalty resulting in ‘low attrition rates, the purchase of more than one product or service, and positive word of mouth’. Customer loyalty is likely to increase a company’s profitability because retaining an existing customer costs much less than attracting a new one (Chi and Gursoy, 2009). It creates increased profit through enhanced revenues, reduced costs to acquire customers, lower customer-price sensitivity, and decreased costs to serve customers familiar with a firm’s service delivery system (Reichheld and Sasser Jr, 1990, Bowen and Chen, 2001).

Schneider et al. (1998, p. 150) agreed and suggested that ‘it is less expensive for an organisation to keep a current customer than to gain a new one’. By losing a customer, a ‘firm loses sales but also the benefits of retained customers such as lower service and marketing costs’ (Anderson and Mittal, 2000, p. 117). Anderson et al. (2004) concurred and noted that acquisition costs and transaction costs decline when customers are loyal and that revenues will increase thus enhancing the net profit. Anderson and Mittal (2000, p. 117) suggested that ‘the loyal customer has to be replaced and (at a higher acquisition premium) by a new customer who buys less frequently and in smaller

quantities (lower revenue), requires more service (higher service cost), and is less likely to recruit new customers (higher marketing costs)'.

According to Chi and Gursoy (2009, p. 246), the same holds true for employees, employees that are loyal will 'likely to result in lower turnover and therefore a better financial performance due to decreasing costs of attracting and training new employees'. Both Green and Tsitsianis (2005) and Hsu and Wang (2008) suggest that in order for organisations to compete competitively, they need to be able to retain their employees and reduce employee turnover. Reducing employee turnover drives down the financial costs through reduced training expenditure and helps build relationships with the customer and other employees by maintaining employee loyalty (DiPietro and Milman, 2004, Gentry et al., 2006, Hsu and Wang, 2008). The financial cost of replacing an employee is significant (Eskildsen and Nussler, 2000). The time and effort needed to find another employee and train them can cost between one and half to three times the individual's annual salary (Earle, 2003, Whitt, 2006). However, Chi and Gursoy (2009) found that employee loyalty has no direct impact on financial performance but that the relationship is mediated by customer satisfaction. According to Loveman's (1998) model, customer loyalty drives profits; customer satisfaction drives customer loyalty but employee loyalty drives customer satisfaction through creating value for the customer.

1.3.2 The Customer Loyalty and Employee Loyalty Links

It can be seen that both customer loyalty and employee loyalty are therefore important factors in determining profits. Rust et al. (1996, p. 64) indicated that 'employees are similar to customers; their satisfaction and retention are instrumental'. Dean (2004)

noted that future research looking at the link between employee loyalty and customer loyalty could provide fruitful research. According to Rust et al. (1996) and Kumar and Shekhar (2012), employee loyalty is an important aspect in determining customer loyalty. Employees who stay in an organisation can develop personal relationships with customers. These relationships are the foundation for a reinforcing cycle of positive interactions between employees and customers (Schlesinger and Heskett, 1991, Allen and Grisaffe, 2001). Foster (2008) concurred and noted that loyal employees can improve relationships between customers and employees.

Rust et al. (1996, p. 63) suggest that ‘employees who perceive relationships with customers provide better service. Customers who receive better service express fewer complaints and thereby create fewer problems for employees.’ The relationship between the employee and the customer is more favourable and this favourable relationship results in better service which in turn leads to higher customer satisfaction (Rust et al., 1996). Loveman (1998, p. 18) concurred and suggested that ‘satisfied customers are more likely to be loyal customers’. Furthermore customers that are satisfied are likely to become loyal and retained customers are a revenue-producing asset for the firm (Tepeci, 1999, Anderson and Mittal, 2000, Concalves and Sampaio, 2012).

Similarly research has shown that employee satisfaction is one of the best predictors of employee loyalty (Hsu and Wang, 2008). Nguyen (2006) found that employee satisfaction is crucial and that it is linked to the level of commitment to the organisation. Chi and Gursoy (2009, p. 246) concurred and suggested that ‘employees who are happy and satisfied with their work environment are more likely to stay with the company’. Rust et al. (1996, p. 63) pointed out that the literature proposes that ‘improving employee satisfaction thus appears to be instrumental for decreasing employee

turnover'. In their research Heskett et al. (1994) focus on putting the employee first, as if employees are satisfied then the customer will be satisfied. Schneider et al. (2005, p. 1018) agreed and suggested that 'the way people behave towards customers is related to customer satisfaction and subsequently to unit sales'.

1.3.3 The Customer Satisfaction and Employee Satisfaction Links

Early on Heskett (1986) identified a central point, in that service value and external service quality are defined by the customer. It is the customer's perceptions that measure and define external service quality (Loveman, 1998). In his research Loveman (1998) did not measure service quality but suggested that customer satisfaction is related to employee satisfaction and loyalty.

Heskett et al. (1997) proposed that customer's satisfaction is a response to employee satisfaction and focused on what they described as the 'satisfaction mirror' which indicates a direct link. The satisfaction mirror suggests that if employees are satisfied, this will be reflected in terms of customer satisfaction (Heskett et al., 1997). Dean (2004, p. 339) noted that though 'the conceptual basis for the satisfaction mirror does not appear to have been explored', it has been generally accepted in the literature that customer satisfaction and employee satisfaction are positively correlated (Wangenheim et al., 2007, Brown and Lam, 2008, Jeon and Choi, 2012). Bitner (1990) suggests that employees are performers in a service setting and their satisfaction can create a better service experience for the customer. Chi and Gursoy (2009, p. 246) further noted that 'satisfied employees are likely to provide a better service which results in a satisfactory service experience for their customers', thus leading to customer satisfaction. The

influence of employee satisfaction on customer satisfaction has received considerable attention within the marketing literature (Jeon and Choi, 2012).

Rust and Zohorik (1993) found that customer satisfaction can be linked to customer loyalty and that customer loyalty results in higher profits and market share. Chi and Gursoy (2009) reported that customer satisfaction has a significant impact on financial performance. Wiley (1991) indicated that, from a financial perspective, achieving customer satisfaction has been viewed as a logical means for increasing revenues and profit and according to Heskett et al. (1994) in order to affect a customer's satisfaction you must start with employees satisfaction and their loyalty. Loveman (1998) suggest that 'internal service quality' drives employee satisfaction. Dean (2004) identifies that internal service quality can be viewed as the impact of the work place environment or work practices on employees.

This first link, internal service quality affecting employee satisfaction, appears to be consistent with the literature from organisational psychology and specifically the work climate literature, which will be reviewed in detail in chapter 4. Schulte et al. (2006) noted that the work climate literature relates to the internal work environment and how this environment influences employees attitudes and behaviours. Empirical evidence to support a link between employees experience with their work environment, their responses and customers evaluations of the service has been found (Schneider et al., 1980, Schneider and Bowen, 1985, Schneider, 1990, Schneider et al., 1998, Schneider et al., 2000). It is not unexpected to find that the work environment affects employees because employees spend more time in the service environment than customers (Parish et al., 2008). According to Earle (2003) it is where they spend the majority of their lives. From a financial perspective alone it is important to understand the affects that the

physical work climate may have on employee behaviour. The work climate literature, chapter four, will examine the influence of the internal service quality, specifically the physical work environment, on employee behaviour in more detail.

As can be seen, the SPC examines several concepts relating to services marketing, customer satisfaction, customer loyalty, service quality, employee satisfaction and employee loyalty. The emotional responses that appear often in the marketing literature are customer satisfaction (Oliver, 1980, Yi, 1989, Anselmsson, 2006, Ding et al., 2010, Wu, 2011) and customer loyalty (Pritchard et al., 1999, Bowen and Chen, 2001, Ezech and Harris, 2007, Hsu and Wang, 2008). These two concepts are often researched with the emotional responses of employees; employee satisfaction (Locke, 1976, Scott et al., 2006, Chi and Gursoy, 2009, Jeon and Choi, 2012) and employee loyalty (Cotton and Tuttle, 1986, Rust et al., 1996, Whitt, 2006) which are taken from the organisational behaviour literature. Employee loyalty and employee satisfaction are considered to be of central importance in the Internal Marketing (IM) literature. IM views employees as internal customers and similarly to external customers, internal customer satisfaction is important. IM will be looked at in more detail within chapter four on work climates. The concepts of customer satisfaction, employee satisfaction, employee loyalty, customer loyalty and service quality will all be looked at individually. Customer satisfaction and service quality can be difficult to separate and as such Brady and Robertson (2001) referred to them as global service evaluations.

1.3.4 Global Service Evaluations

The interaction between a service provider and a customer and the role this service exchange plays in influencing customer responses has been widely reflected upon in the services literature (Vargo and Lusch, 2008b, Jayawardhena and Farrell, 2011, Po-Young et al., 2012). During the consumption experience customers interact with their service setting and with the service provider therefore it is important to research customer's evaluations of this service exchange. Pollack (2009, p. 43) noted that 'due to their intangible nature services are more difficult to evaluate than products'. Value then cannot be embedded into the manufacturing process but is rather co-created and evaluated by the consumer (Vargo, 2011). The literature on customer's evaluations to the service exchange has resulted in two main streams of research; service quality and satisfaction (Oliver, 1981, Parasuraman et al., 1988, Namasivayam and Mattilla, 2007). Research suggests that service quality and satisfaction can be viewed as two distinct concepts and that satisfaction is generally considered to be preceded by service quality (Cronin Jr and Taylor, 1992, Liljander and Strandvik, 1997, Minjoon and Shaohan, 2010, Po-Young et al., 2012). As a result, service quality will be looked at first followed by customer satisfaction.

1.3.5 Service Quality

According to Pollack (2009, p. 42) 'over the past decade researchers have devoted considerable attention to studying service quality as perceived by the consumer'. Research has acknowledged that service quality is widely regarded as being elusive and difficult to define (Parasuraman et al., 1985, Cronin Jr and Taylor, 1992). Due to the difficulty in defining service quality there has existed a problem in conceptually differentiating between it and customer satisfaction (Ekinci, 2001). Chandon et al.

(1996, p. 66) suggest that ‘service quality depends on consumers’ satisfaction with their encounters with the company’s employees, but it also depends on the quality of the service obtained and on the physical surroundings of the service’.

Similarly to the satisfaction literature the service quality literature has been conceptualised as involving a comparison of expectations with performance (Parasuraman et al., 1985, Liljander and Strandvik, 1997). It is considered the delivery of superior or excellent service relative to customer’s expectations (Pollack, 2009). This conceptualisation forms the basis of much of the service quality literature and is called the disconfirmation paradigm (Brady and Cronin Jr, 2001).

This paradigm suggests that quality results from a comparison of perceived with expected performance. Parasuraman et al. (1988) suggest that the perceived service quality is considered to be a global judgement or attitude that is related to the superiority of the service. It has been described as a form of attitude that is related to satisfaction but that is not the same as satisfaction (Parasuraman et al., 1988). According to Liljander and Strandvik (1997, p.150) a ‘customers evaluations of service quality can be described as a cognitive process, where customers consider the goodness/badness of different components of the service...by comparing the service performance with some predetermined standard’. Kim and Moon (2009, p. 145) agreed and noted that it can be ‘viewed as representing a cognitive view of customer decision making process.

According to Cronin Jr. and Taylor (1992, p. 55-56) ‘the difference between consumers’ expectations about the performance of a general class of service providers and their assessment of the actual performance of a specific firm within that class drives the

perception of service quality'. Parasuraman et al. (1988) agreed and suggested that the difference between the satisfaction and service quality concepts lies in the way that disconfirmation is operationalized. In measuring perceived service quality the level of comparison is what a customer should expect (i.e from their expectations), whereas in the measures of satisfaction the appropriate comparison is what a customer would expect (Cronin Jr and Taylor, 1992). Parasuraman et al. (1988, p. 17) noted that within 'the service quality literature expectations are viewed as desires or wants of the customer, i.e., what they feel a service provider *should* [original emphasis] offer rather than *would* offer'. However after considerable debate within the service quality literature Parish et al. (1991) proposed changes. This change 'focused on the expectations element where respondents were now required to indicate what an excellent service would provide rather than what firms in the industry should provide' (Smith, 1995, pg. 259).

From a theoretical perspective there are two dominant schools of thought, the European and the US. Both of these schools agree that consumers arrive at an evaluation of service quality that is based upon the disconfirmation paradigm (Ekinici, 2001) and that employees play an important role in service quality (Parasuraman et al. 1991, Chandon et al. 1996, Pollack, 2009, Ueno, 2010). The schools also accept that service quality is a multidimensional construct. However, there appears to be a lack of consensus in the literature regarding the number and nature of the dimensions (Smith, 2000). 'Considerable debate exists regarding the number and type of dimensions' (Pollack, 2009, p. 43). The European school of thought maintains that consumers judge the quality of service on technical quality and functional quality (Chenet et al, 1999, Pollack, 2009). Chenet et al. (1999) highlight that functional quality dimension has been seen as the more important aspect and relates to psychological interaction that takes place during the transaction. Whereas the US school of thought identifies five service

quality dimensions; reliability, responsiveness, assurance, empathy and tangibles based on Parasuraman et al. (1988) research. This conceptualisation of the service quality is measured with the SERVQUAL scale and although it has been largely criticised it is the most popular measure of the service quality construct (Smith, 1995). On the other side, the European measure has been criticised by its lack of a tangible dimension. Pollack (2009, p. 44) noted that it does not include the 'quality of the physical service environment that corresponds to the tangible dimension of SERVQUAL'. Early on Shostack (1977, p. 77) indicated that perceptions of service quality 'appear to be shaped to a large extent by the things that customer can comprehend with his five senses-tangible things. But a service itself cannot be tangible so reliance must be placed on peripheral cues'. According to Kotler (1973, p. 50) the five senses form the basis for describing a service atmosphere and 'atmosphere is always present as a quality of the surrounding space'. Bitner (1992) concurred and indicated that the surrounding service environment can have a significant influence on perceptions of the overall quality of the service encounter.

In an effort to bring the two schools of thought together Brady and Cronin (2001) proposed the hierarchical service quality model (HSQM). Their model was based on Gronroos (1984) and Rust and Oliver's (1994) theoretical formulations as well as evidence that the service environment affects service quality perceptions (Bitner, 1992, Spangenberg et al., 1996). Within this model quality is viewed as a multilevel construct consisting of three primary dimensions, interaction quality, physical environment quality and outcome quality (Brady and Cronin Jr, 2001). Empirical support was found for the model and provided support for the previous theoretical models.

However, Brady and Cronin (2001) incorporated elements from Bitner's (1992) servicescape dimensions and suggested they formed part of the service quality construct. Reimer and Kuehn (2005) separated the servicescape elements from service quality and suggested that servicescape dimensions impacted directly on perceptions of service quality. This suggests that servicescape elements are an antecedent to service quality rather than part of the construct. There appears to be a gap in the literature examining the servicescape dimensions as separate to service quality. However, a forthcoming article by Hooper et al. (2013) argues that servicescape dimensions precede service quality and further research is needed. The importance of the servicescape as its own construct with three dimensions is stressed by Bitner (1990, 1992) and will be discussed in detail in chapter three.

Overall the focus of service quality research has been the investigation of how it differentiates itself from satisfaction (Brady and Cronin Jr, 2001, Brady and Robertson, 2001, Rust and Oliver, 1994, Pollack, 2009). An effort to understand the relationship that exists between service quality and satisfaction has been sought within the service literature. Though both are global service evaluations there are apparent distinctions in their cognitive and affective attributes (Oliver, 1997, Brady and Robertson, 2001). Customer satisfaction will be looked at next to understand the distinction between the two.

1.3.6 Customer Satisfaction

Central to the marketing literature and marketing practice is customer satisfaction (Churchill Jr. and Surprenant, 1982, Yi, 1989, Oliver, 1999, Vilares and Coelho, 2001,

Yeung and Ennew, 2001, Anselmsson, 2006). A significant volume of literature emerged in the early 1970s with Oliver (1977, 1980) producing review articles. Since then, there has been considerable research in the area (Yi, 1989, Anselmsson, 2006, Burns and Neisner, 2006, Hume and Mort, 2010, Miles et al., 2012). According to Churchill Jr. and Surprenant (1982, p. 491), customer satisfaction is a major concept which links 'processes culminating in purchase and consumption with post purchase phenomena such as attitude change, repeat purchase and loyalty'. Along with customer loyalty, customer satisfaction has been researched with employee satisfaction, financial performance and as noted has closely been tied in with service quality.

Bitner (1990) suggested the difference between service quality and customer satisfaction is that perceived service quality is a form of attitude, an overall evaluation, whereas satisfaction is a transaction-specific measure. However, Anderson et al. (1994) suggested that at least two conceptualisations can be distinguished for satisfaction; transaction specific and cumulative. The transaction specific perspective suggests that customer satisfaction is viewed as a post choice evaluative judgment of a specific purchase occasion (Vilares and Coelho, 2001), whereas the cumulative conceptualisation is suggested to be an overall evaluation based on total purchase and consumption over time (Fornell, 1992). On the other hand, Oliver (1981, p. 27) suggested that overtime 'satisfaction soon decays into (but nevertheless greatly affects) one's overall attitude towards purchasing products.'

From the literature a clear distinction is that satisfaction contains an affective or emotional dimension as well as a cognitive dimension (Liljander and Strandvik, 1997). Giese and Cote (2000) indicate that the general consensus appears to be that customer satisfaction is comprised of three basic components: a response (cognitive and/or

emotional) pertaining to a particular focus (consumption experience) determined at a particular time (post purchase).

Within the satisfaction literature, the confirmation/disconfirmation of expectations model (DS model) where customer satisfaction is hypothesised to result from a process of a cognitive comparison is traditionally seen as the predominant concept (Phillips and Baumgartner, 2002, Burns and Neisner, 2006). This takes a purely cognitive approach and does not take into account affective responses (Liljander and Strandvik, 1997). Churchill Jr. and Surprenant (1982, p. 493) noted that ‘satisfaction is an outcome of purchase and use resulting from the buyers comparison of the rewards and costs of the purchase in relation to the anticipated consequences’. It is considered to be an overall judgment process of the perceived discrepancy between prior expectations and actual consumption (Han and Ryu, 2009). When faced with an exchange encounter, for example a visit to a retail store, customers approach with certain expectations (Burns and Neisner, 2006). Yi (1989, p. 69) highlighted that ‘according to the confirmation/disconfirmation framework, consumers compare their perceptions of product performance with a set of standards (e.g., expectations or some other norm of performance)’. Confirmation happens if the perceived performance matches the standards that were expected. Disconfirmation is the therefore when performance does not match the standards that were expected.

If perceived performance is greater than expected, positive confirmation (satisfaction) occurs and if perceived performance is lower than expectations, negative disconfirmation (dissatisfaction) occurs (Matzler et al., 2004). ‘If the product performs as expected, the outcome is moderate satisfaction or indifference’ (Matzler et al., 2004, p. 1182). Both confirmation and disconfirmation are expected to determine if the

customer is satisfied or dissatisfied (Oliver, 1980, Yi, 1989). Westbrook and Oliver (1991) noted that in this regard satisfaction is seen as a one-dimensional concept, though early on some authors suggested it was dual dimensional (Maddox, 1981). Overall, the DS model assumes that satisfaction is formed through a cognitive comparison of the perceived performance and the pre-purchase expectations (Oliver, 1980, Matzler et al., 2004).

However, it has also been noted in the literature that the above process may be more complicated and that affect may play an important role in explaining customer satisfaction (Phillips and Baumgartner, 2002). As noted, it is the affective dimension that differentiates satisfaction from service quality. According to Westbrook (1987, p. 259), 'the affective concept is generally understood to comprise a class of mental phenomena uniquely characterised by a consciously experienced, a subjective feeling state, commonly accompanying emotions and moods.' The term 'affect' has been conceived in the literature as an umbrella term that includes emotions and moods (Bagozzi et al., 1999). Bagozzi et al. (1999, p. 184) indicated that 'the line between an emotion and mood is frequently difficult to draw but often by convention involves conceiving of a mood as being longer lasting (from a few hours up to days) and lower in intensity than an emotion'. Emotion is a more specific term used to define a mental state of readiness, is more intense than a mood and arise in response to an evaluative judgment and interpretation thereof (Westbrook and Oliver, 1991, Bagozzi et al., 1999).

Mehrabian and Russell (1974) suggested three primary emotional responses: Pleasure, Arousal and Dominance (PAD). These are affected by the environmental stimuli, the S-O part of the Stimulus-Organism-Response (SOR) model. This will be looked at in more detail in chapter two. Within the satisfaction literature, most empirical studies that

have looked at the affective concept have used Izards differential Scale (DES II), which is a shorter version of Izards DES I scale (Westbrook, 1987, Johnson et al., 1995). It consists of ten emotions: joy, anger, disgust, contempt, shame, guilt, sadness, fear and surprise (Johnson et al., 1995). These emotions coincide with Mehrabian and Russell's (1974) primary emotions of PAD.

Burns and Neisner (2006, p. 50) pointed out that 'since the experiences provided by retailers are inherently service-centric, it is logical to expect that affective evaluations also play an important role in the level of satisfaction experienced by consumers'. However, although emotions are considered to play an important role in other aspects of consumer behaviour, the majority of research in customer satisfaction has been cognitive (Bagozzi et al., 1999). Mattila and Wirtz (2006, p 229) concurred and noted that 'previous satisfaction research has mainly focussed on cognitive expectations in explaining consumers' responses to service experiences' and that the affective concept has been mainly left unexplored within the satisfaction literature. Early on, Bagozzi et al. (1999) suggested that emotions play a significant role in consumers choice and Oliver (1993) demonstrated the effect of emotions on satisfaction. In his research, Oliver (1993) suggested affect as a mediator between cognitive evaluations, such as the disconfirmation of a comparison standard or the perceived product performance and satisfaction. Oliver (1993) also proposed a model where disconfirmation of expectations, attribute performance and affect may contribute to satisfaction but where affect could also act as a mediator.

According to Liljander and Stradvik (1997) affect can also be viewed as an independent variable and along with the cognitive variable can provide more of an explanation of satisfaction than either construct would by itself . Liljander and Strandvik (1997)

indicated that satisfaction cannot be fully understood without acknowledging this affective dimension. Pham et al. (2001) concurred and noted that consumers evaluations have been shown to be based on their affective responses to the physical environment. Ding et al. (2010, p. 97) acknowledged that though ‘most studies agree that satisfaction represents an overall psychological state’ the role and importance of affect within the satisfaction literature needs to be further examined (Burns and Neisner, 2006). These two evaluative processes, cognitive and affective, are considered to produce separate influences on the level of satisfaction experienced (Oliver, 1993, Burns and Neisner, 2006). Liljander and Stradvik (1997) noted that the cognitive comparison process requires deliberate processing of information, in that a customer has a set of expectations and compares them with the perceived performance.

The affective processes are thought to be outside the conscious control of the customer (Burns and Neisner, 2006). Customers are unaware that they are processing the information that they are receiving and it is this affective state that is important to research within the satisfaction literature. Satisfaction, along with customer loyalty, is considered to be an emotional response (Bagozzi et al., 1999, Back, 2005). Before looking at customer loyalty, employee satisfaction will be looked at. Bitner (1992) and Mehrabian and Russell (1974) both strongly suggest that that the service environment can produce an emotional response among customers and employees. Furthermore, similarly to customer satisfaction employee satisfaction is acknowledged to be based on cognitive and affective response (Wirtz and Bateson, 1999, Mattila and Wirtz, 2006).

1.3.7 Employee Satisfaction

Employee satisfaction or job satisfaction is perhaps the most frequently studied concept in organisational behavioural literature (Rust et al., 1996, Luthans, 1998, Snipes et al., 2005, Gazzoli et al., 2010) and has also received limited attention within the marketing literature (Parish et al., 2008). Within the service sector the role that employees play has changed. Employees are beginning to be considered as internal customers. Eskildsen and Nussler (2000) suggested that employees have evolved from being a resource that can be exploited to being an asset that needs to be nourished, guarded, developed and satisfied.

The importance of employee satisfaction in the literature is not surprising as customers are no longer considered the only important individuals within a service setting. Comm and Mathaisel (2000, p. 43) indicated that the 'job satisfaction of employees is just as important as customer satisfaction'. Rust et al (1996) concurred and noted that employees are viewed as the internal customer and similarly to customers their satisfaction is instrumental to the success of an organisation. Furthermore, employee satisfaction is considered paramount due to research suggesting that employee satisfaction affects customer satisfaction (Bitner, 1990, Heskett et al., 1994, Rust et al., 1996). These two concepts have been researched together within the marketing literature (Heskett et al., 1997, Homburg and Stock, 2004, Wangenheim et al., 2007, Jeon and Choi, 2012). Along with customer satisfaction, employee satisfaction has been researched with loyalty or market and financial performance within the organisational behaviour literature (Eskildsen and Nussler, 2000, Oshagbemi, 2000). However, within the marketing literature research linking these constructs is unusual and appears to be limited to research relating to the SPC or satisfaction mirror.

Locke (1976, p. 1300) suggested that employee satisfaction is a 'pleasurable or positive emotional state resulting from an appraisal of one's job or job experiences'. Locke (1976) identifies employee satisfaction as an emotional response that is a present or past oriented concept. His definition of employee satisfaction has been taken by many authors as rule of thumb within the literature. Employee satisfaction focuses on the employee's job attitude towards the job and is a general degree of happiness towards the job (Babin and Boles, 1998, Luthans, 1998, Weiss, 2002, Parish et al., 2008).

It has been suggested to be a global reaction to overall job circumstance and affective reactions to different job factors such as the work environment or pay (Brown and Lam, 2008). According to Eskildsen and Nussler (2000, p 582) 'every aspect that has to do with the influence that the job has on the employee as well as the perception that the employee has on the job/organisation is included in this definition of employee satisfaction'. It is important to note that the definitions of employee satisfaction are similar to the basic principle of Internal Marketing (IM). These definitions can be interpreted as whether or not employees are happy to go to work, if they perceive their jobs as meaningful or whether their jobs have a negative physical or psychological effect on them (Eskildsen and Nussler, 2000, Ueno, 2010). Pool (1997, p 272) concurs and indicates that 'job satisfaction is an attitude that individuals maintain about their job'.

Pool (1997) indicated that a major goal of researching employee satisfaction is to understand the complexities of the perceptions employees have and their impact on their satisfaction. Though employee satisfaction has been clearly defined within the literature most organisations struggle to understand employee satisfaction, measure it or improve employee behaviour in the work place (Rust et al., 1996). The measurement of employee satisfaction is of utmost importance for many organisations (Fosam et al., 1998, Oshagbemi, 2000, Hsu and Wang, 2008). It is of particular importance in the service industry due to employee satisfaction impacting directly on customer satisfaction (Heskett et al., 1994, Fosam et al., 1998, Ueno, 2010). Employees are internal customers and their satisfaction can influence other internal customers and the external customer (Brown and Bond, 1995, Homburg and Stock, 2004). Due to this connection, employee satisfaction has been suggested to be just as important as customer satisfaction (Rust et al., 1996, Comm and Mathaisel, 2000). Rust et al. (1996) noted that employees perform for the customer. Bitner (1990) concurred and noted that employees are performers and that their satisfaction can be seen as a quality assurance for customers. Vargo and Lusch (2008) further highlight this in suggesting that organisations are there to serve society.

Pool (1997) noted that Weiss et al. (1967) suggested a five dimensional measure for measuring employee satisfaction. This included the dimensions of the job itself, pay, promotion opportunities, supervision and co-workers (Pool, 1997). A more recent model looking at employee satisfaction is the 'Employee Satisfaction Index model' (ESI) by Hsu and Wang (2008). From considering customer satisfaction research, Hsu and Wang (2008) incorporated key elements of the Customer Satisfaction Index (CSI) into their ESI model. This model has an 'aim of simplicity and comparability that can explore the causal relationship of employee satisfaction' (Hsu and Wang, 2008, p. 353).

Hsu and Wang (2008) noted that their research produced a meaningful and measureable employee satisfaction index that showed the employee satisfaction level. Homburg et al. (2009) used a similar measure to Hsu and Wang (2008) and found it to be reliable.

However, Green and Tsitsianis (2005) suggest that research in understanding the factors affecting employee satisfaction and its implications on behaviour remains quite under researched. Parish et al (2008) looked at the servicescape affecting employee satisfaction and suggested further research is needed in examining the role of employee satisfaction in a service setting. Hsu and Wang (2008) concurred and noted it is crucial to understand what factors influence employee satisfaction and to understand what employee satisfaction influences. One important aspect of the employee satisfaction research is its connection with employee loyalty. Employee loyalty will be looked at next.

1.3.8 Employee Loyalty

Within the literature the term ‘employee loyalty’ and ‘employee retention’ are often used interchangeably. Both terms have received a great deal of attention within the organisational psychology literature (Cotton and Tuttle, 1986, Currivan, 1999, DiPietro and Milman, 2004) and some more limited attention in the marketing literature (Heskett et al., 1997, Parish et al., 2008). For the majority of companies and organisations retention or loyalty is a top priority (Earle, 2003, Gentry et al., 2006). Organisations desire to have a greater understanding of what employee loyalty is in order to reduce their costs and increase profits (Rust et al., 1996, DiPietro and Milman, 2004, Whitt, 2006, Hsu and Wang, 2008). In order to help organisations, considerable research has

gone into finding out both the drivers of employee loyalty and the outcomes of employee loyalty. However there has been some disagreement within the literature as to what loyalty or retention is and how it should be defined (Meyer et al., 1993).

Mak and Sockel (2001) suggest that retention is a construct and not just a single variable. They suggest that retention can manifest itself in three ways, through turnover, loyalty or commitment to the organisation and burnout. Employee turnover is considered the proportion of employees who leave an organisation (Gentry et al., 2006). DiPietro and Milman (2004) noted that improving retention is related to lower turnover and Mak and Sockel (2001, p. 268) themselves suggested that 'lower employee turnover intent may indicate better employee retention'. Improving retention, in most cases is a direct result of reducing the turnover in the organisation (DiPietro and Milman, 2004). Within the literature, loyalty, commitment or retention can be viewed as the opposite of turnover intention. Foster et al. (2008) noted that the terms commitment and loyalty are used interchangeably in the literature.

Loyalty is viewed as the proportion of employees who wish to stay committed and active agents within the organisation. Cramer (1996) noted that loyalty has been defined as the extent an employee involves themselves with a particular organisation. Eskildsen and Nussler (2000, p. 582) concurred and suggested that employee loyalty 'includes such things as whether or not employees are committed and assume personal responsibility for their work, and whether or not they feel inclined to look for another job'.

The third variable according to Mak and Sockel (2001) was burnout. However, Cordes and Dougherty (1993, p. 625) indicated that ‘despite the growing consensus surrounding the concept of burnout, the distinction between burnout and stress has not been clearly delineated’. Ganster and Schaubroeck (1991, p 239) argued that burnout is actually a type of stress more specifically an ‘affective response to stressful work conditions that featured high levels of interpersonal contact’. Parish et al. (2008) concur and indicate that job stress is an affective response. Mak and Sockel (2001, p. 268) suggest that when an employee becomes so ‘stressed that he or she may turn into burn-out mode’. The literature suggests that burnout is a form of job stress resulting from work demands and constraints.

Loveman (1988) suggested that employee loyalty can manifest itself in two ways. The first manifestation is stated commitment or attitude and the second manifestation is demonstrated commitment or behaviour. Behavioural loyalty is when the employee continues to increase their relationship with the company or the act of recommendation (Hallowell, 1996). According to Cramer (1996, p. 389) behavioural loyalty ‘has usually been conceptualized in terms of the costs of leaving an organization’. Dean (2004) recommended that if actual or behavioural loyalty cannot be measured that the best estimate would be the attitudinal measure of loyalty. Attitudinal loyalty is the extent to which an employee identifies with or is involved with a particular organisation and is the level of psychological commitment towards the organisation (Cramer, 1996). Mak and Sockel (2001, p. 261) concurred and proposed that ‘loyalty, or organizational commitment, has most commonly been studied as attitudinal or affective; it may be defined as a relative strength of individuals' identification with the involvement in a particular organization.’ Cramer (1996) also indicate that that there lies several conceptions of loyalty but that attitudinal or affective commitment is the most

frequently studied. Allen and Grisaffe (2001) concurred and suggested that most researchers would agree that at a general level employee loyalty refers to a psychological state that characterises the employee's relationship with the organisation.

Cramer (1996) indicated that loyalty develops slowly since it is not just based on the job itself but on other aspects in the working environment. Other aspects that have been related to employee loyalty are employee satisfaction, which is considered to play a large role (Rust et al., 1996) and physical environmental stimuli (Parish et al., 2008). According to Gentry et al. (2006) loyalty needs to be examined on multiple levels and an increased understanding of a more dynamic approach to studying loyalty would be beneficial to the literature. Cotton and Tuttle (1986, p. 66) suggested that 'research needs to be expanded and additional variables used' to understand the relationship between work environments and loyalty. The physical work environment is a variable that is frequently untouched in understanding loyalty. Parish et al. (2008, p. 236) note that research on the effects of the physical work environment (servicescapes) on employee behavioural responses is sparse and that 'the physical places in which services are performed deserve more attention in the service literature'. Foster et al. (2008) concurred and noted that there is a gap in the literature in understanding employee loyalty in retail environments.

To date there is limited research in the marketing literature examining employee loyalty and that research has instead focused on customer loyalty (Foster et al., 2008). This is surprising as employees play a central role in the SPC. Maertz et al. (2007) indicated that understanding employee loyalty will likely be a primary concern for organisations in the future. It is of particular importance in a retail setting where interaction between loyal employees and customers appears to be an important part of a stores offering

(Foster et al., 2008). According to Foster et al. (2008, p. 425) 'loyal employees who are eager to meet the needs of customers and as a result deliver high levels of customer service could act as a source of differentiation'. Batt (2002, p. 589) concurred and suggested that 'long term employees have the tacit firm-specific skills and knowledge and often the personal relationships with customers needed to more effectively interact with customers'. Employees that build a relationship with the customer may encourage customer loyalty (Rust et al., 1996, Hsu and Wang, 2008, Jeon and Choi, 2012), which will be looked at next.

1.3.9 Customer Loyalty

Han and Ryu (2009) indicated that the benefits of creating and maintaining customer loyalty is a top priority in the service sector. Harris and Ezech (2008) suggested that customer loyalty has become a very popular area of research due to the immense benefits available to organisations by the retention of a single customer. Retaining a single customer can have a large impact on a company's profits and due to this strong connection organisations are keen to understand customer loyalty (Reichheld et al., 2000). Similarly, Pritchard et al. (1999, p. 333) suggest that 'understanding how or why a sense of loyalty develops in customers remains a crucial management issue.

In defining customer loyalty Oliver (1999, p. 34) suggests that it is 'a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching

behavior.’ Similarly to employee loyalty, Jacoby and Kyner (1973) suggest that customer loyalty can be defined in two distinct ways within the marketing literature.

Firstly it can be defined as an attitude. The attitudinal dimension considers the psychological or decision making commitment towards the service or product (Kandampully and Suhartanto, 2000). According to Bowen and Chan (2001, p. 214) ‘attitudinal measurements use attitudinal data to reflect the emotional and psychological attachment inherent in loyalty’. These different emotions or feelings can create a customer’s overall attachment to a service, product or organisation (Han and Ryu, 2009). Hallowell (1996, p. 28) noted that ‘these feelings define the individual’s (purely cognitive) degree of loyalty’.

Secondly, customer loyalty can be defined as behavioural. The behavioural dimension considers consistent repeat patronage or repeat purchase frequency (Han and Ryu, 2009). It can consist of continual purchase of a product or service from the same supplier, increasing the scale or scope of a relationship or by telling others about the service or product (Yi, 1989). Behavioural loyalty includes relationship continuance or act of recommendation and result from customer belief that the value or quality received from one supplier is greater than that available from a competitor (Hallowell, 1996). According to Han and Ryu (2009, p. 492) ‘loyalty is a consequence of consistent repeat patronage/repeat purchase frequency of a single store/brand as well as favorable attitude.’ Though often not specified within academic papers, customer behavioural loyalty is the most often researched in the literature (Zeithaml et al., 1996, Harris and Ezeh, 2008, Han and Ryu, 2009, Yee et al., 2011)

In his research Oliver (1999) initially suggests that there are three phases to loyalty, cognitive, affective and conative. The cognitive phase is an information phase and according to Oliver (1999) is of a shallow nature. The affective stage involves an emotional response. 'Commitment at this phase is referred to as affective loyalty and is encoded in the consumer's mind as cognition and affect' (Oliver, 1999, p. 35). These two phases appear to tie in with what has been termed attitudinal loyalty. The third phase, the conative phase is the commitment to repurchase. Oliver (1999) then indicates that the conative stage is only a behavioural intention stage and that a fourth stage, action loyalty also exists. Action loyalty is the commitment of the action of re-buying. These last two stages appear to relate to behavioural loyalty. Past literature suggests that attitudinal loyalty and behavioural loyalty are sufficient in understanding customer loyalty.

Oliver (1999) notes that in order to detect customer loyalty, customers beliefs/affects (attitudinal) and intention (behavioural) need to be researched. However in recent years, some have argued that there is a disadvantage of including the behavioural dimension in assessing the level of customer loyalty (Back, 2005, Han and Ryu, 2009). Tepeci (1999) suggests that repeat purchases are not always an outcome of the evaluative or affective decision making commitment to the store. The decision process should be intentional and the behavioural dimension may disregard the affective element (Tepeci, 1999, Han and Ryu, 2009). The repeat purchasing may not indicate that the customer maintains a favourable emotional commitment to the provider (Bowen and Chen, 2001). Repeat purchase may be occurring due to convenience or lack of choice (Tepeci, 1999). As Wu (2011, p. 241) highlighted 'a convenient location may serve as another factor in maintaining loyalty'.

Harris and Ezeh (2008) indicated that there has been a primary focus on product based customer loyalty or brand loyalty and that loyalty to service organisations has remained under researched. Unlike the consumers good industry repeat purchasing may not be an adequate indicator of customer loyalty because loyalty in a service sector involves an emotional commitment (Han and Ryu, 2009). Back (2005) and Wu (2011) concur and recommends using an attitudinal approach in the service sector for finding the customers emotional commitment to the provider.

1.4 Conclusion

Employees have been emphasised as being core to delivery customer service within the the SPC. A service environment is where the service delivery takes place, can be hedonic or utilitarian in nature, and is where customers and employees can experience different affective and cognitive processes. Key constructs in the service literature relate to service quality, customer satisfaction, employee satisfaction, customer loyalty and employee loyalty. Each of these constructs are reflected in the SPC which proposes a causal chain linking employee satisfaction through to financial performance, through the mediating constructs of customer satisfaction, employee satisfaction, customer loyalty and employee loyalty (Heskett et al., 1994, Loveman, 1998).

The next chapter examines the environmental psychology literature. This relates to Mehrabian and Russell's (1974) pioneering work on the Stimulus Organism Response (SOR) model. The environmental psychology chapter forms the foundations for chapter three on servicescapes and chapter four on work climates.

2 CHAPTER 2 The Mehrabian and Russell Framework

Pleasure is nature's test, her sign of approval. When man is happy, he is in harmony with himself and his environment.

Oscar Wilde (1891)

2.1 Introduction

This chapter introduces environmental psychology which forms the foundation for chapter three on servicescapes and chapter four on work climates. Stemming from environmental psychology, the Mehrabian and Russell's (1974) model plays an important theoretical role in both the services literature and the work climate literature. This chapter will discuss in detail the Mehrabian and Russell (1974) model and the Stimulus Organism Response (SOR) model. The SOR forms the foundation for the Mehrabian and Russell (1974) model. The organism, or O, relates to the emotional response and Mehrabian and Russell (1974) identified Pleasure and Arousal as the two main emotional responses. However, there are three emotional responses, Dominance being the third dimension. The role of Dominance is examined separately due to it not being addressed in the O component.

Following discussion on the SOR paradigm a critique of the Mehrabian and Russell (1974) model and their proposed hypothesis will be examined in more detail. The concept of Target-Arousal will then be discussed which introduces 'High' and 'Low' Target-Arousal situations. This helps to understand in which situations the Mehrabian and Russell (1974) model has been found to be theoretically beneficial. Lazarus (1991) cognition theory of emotion model is briefly discussed at the end of the chapter as it has been proposed as an alternative model to Mehrabian and Russell (1974) model.

2.2 Environmental Psychology

Holahan (1986) noted that in the 1970s there was a trend towards developing the theory of environmental psychology. During this time Proshansky et al. (1970a, p. 7) indicated that ‘the structure of interrelated concepts, assumptions, and principles required for a theoretical definition of environmental psychology simply does not exist’. Craik (1973) reviewed a collection of readings within environmental psychology in order to gain a better idea of what environmental psychology entailed. From the review Craik (1973, p. 412) indicated that ‘a broad, thin but rapidly expanding layer of empirical research underlies current knowledge in environmental psychology’. Proshansky et al. (1970b) noted that by pointing out events or phenomena within studies of environmental psychology, that an attempt to define it can be made.

Since Proshansky’s et al. (1970a) study there has been a large and steadily growing body of literature within the field of environmental psychology (Bitner, 1992). Within this growing literature there have been attempts to define the nature of environmental psychology. Craik (1973) noted that it was the scientific study of the interplay between human behaviour and the environment. Holahan (1986, p. 400) concurred and indicated that ‘environmental psychology studies the interrelationship between the physical environment and human behaviour and experience’.

Over the years environmental psychology was concerned with two major topics: firstly, the emotional impact of the physical stimuli and secondly the effects of the physical environment on decisions to approach or avoid those environments (Craik,

1973, Mehrabian and Russell, 1974, Bitner, 1992, Huang, 2003). Mehrabian and Russell (1974) indicated that an area of concern for them was the effects of the physical environment on emotional responses of the individuals within that environment. Proshansky et al (1970a) initially undertook pioneering research in their review of studies in environmental psychology. Their survey comprised of studies that were mixed in their interests, findings, and methodologies. Proshansky et al. (1970a, p. 4) noted that ‘not one of them, (the environmental studies), fits neatly into an established scientific discipline’.

Mehrabian and Russell (1974) agreed with Proshansky et al. (1970a) and noted the difficulty of integrating or analysing studies that contained many different dependent and independent variables. For instance comparing Berlyne’s (1960) study on the effects of complex versus simple stimuli on arousal, with Thayer’s (1967) study of the measurement of activation through self-report, or with Proshansky’s et al (1970b) study of the influence of the physical environment on behaviour, was seen to be exceptionally complex as there was no framework by which they could be compared. Mehrabian and Russell (1974) sought to establish a framework in order to outline the important variables that occur in most situations. According to Mehrabian and Russell (1974, p. 2) a ‘framework would indicate which variables are relevant or irrelevant, which ones should be explored and which ones need to be controlled’. Proshansky et al (1970a) noted that many difficulties could arise in establishing a general theoretical framework.

2.3 The Mehrabian and Russell Framework

Mehrabian and Russell (1974) attempted to present an integrated framework that provided a broad overview of the environment. To begin it is important to point out the two parts to their framework. Firstly their model presents an outline for studying the problems of environmental psychology and indicates the important variables that occur in most situations. According to Machleit and Eroglu (2000) the Mehrabian and Russell model is most frequently used in environmental psychology and is widely used in marketing to evaluate emotional response. Figure 2.1 shows the Mehrabian and Russell model. Secondly, their framework identifies three hypotheses. For a clearer understanding these will be outlined after the framework.

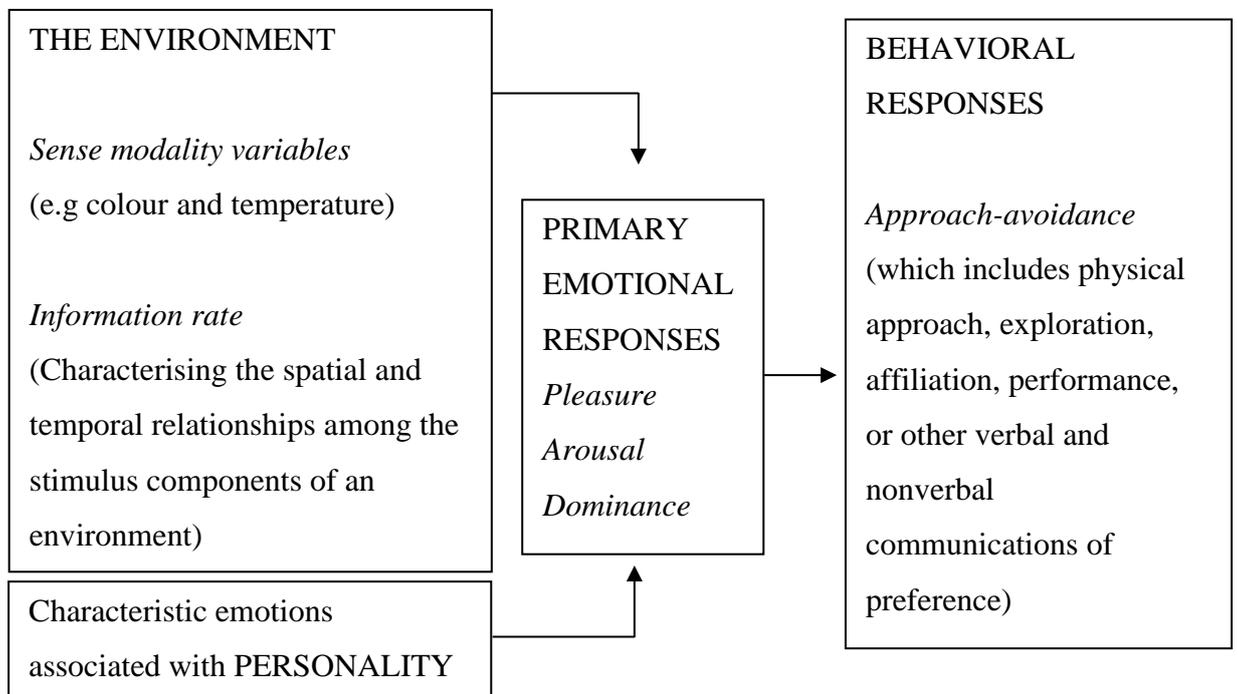


Figure 2.1 Mehrabian and Russell Model
Source: Mehrabian and Russell (1974, p. 8)

Yalch and Spangenberg (2000, p. 140) noted that ‘Mehrabian and Russell (1974) developed a framework for analysing the effects of environments on individuals, emphasising the role of nonverbal responses to environmental factors as a major determinant of behaviour’. Kenhove and Desrumaux (1997) concurred and indicated that the Mehrabian and Russell (1974) framework maintains that an individual’s response (perceptions and behaviour) within a certain environment is affected by the emotional states created by that environment. Mehrabian and Russell (1974, p. 8) stated that the ‘three emotional response variables (Pleasure, Arousal, Dominance) summarise the emotion-eliciting qualities of environments and also serve as mediating variables in determining a variety of approach-avoidance behaviours such as physical approach, work performances, exploration, and social interaction’. Huang (2003) agreed that Pleasure, Arousal and Dominance are the three dimensions that characterise individual’s feelings in the environment. Each of these emotional responses will be discussed in detail but firstly the model itself will be looked at.

Figure 2.2 shows the revised format of the Mehrabian and Russell (1974) model that has been used within the store environments literature. Donovan and Rossiter (1982) introduced the model to retail store environments. To date, the revised model is most frequently used in studies of service environments. Appendix 1 provides a detailed table of literature examining the Mehrabian and Russell (1974) model (Kearney et al., 2007).

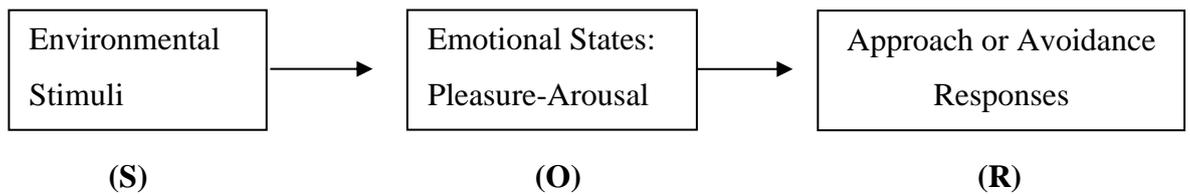


Figure 2.2 SOR framework

Source Mehrabian and Russell (1974, p.8) revised format from Tai and Fung (1997, p. 315)

2.4 The S-O-R Paradigm

Through the use of the SOR paradigm, the Mehrabian and Russell (1974) model considers the store environment, its effects on emotional behaviour and its contribution to shopping behaviour. The (S) component is the environmental stimulus; the (O) component is the emotional states and the (R) is the approach-avoidance response. The (S) component identifies that specific stimuli are said to affect the emotional states of Pleasure and Arousal, the (O) component, which in turn affects the (R) component, the Approach-Avoidance behaviours (Aubert-Gamet, 1996).

Donovan and Rossiter (1982, p. 36) suggested that by ‘using a S-O-R paradigm, they [Mehrabian and Russell 1974] offer a parsimonious description of environments, intervening variables, and behaviours relevant to the retail setting’. Donovan et al (1994) indicated that the Mehrabian and Russell (1974) model focuses mainly on the Organism-Response aspects. Spangenberg et al. (1996) emphasised that environmental psychology draws from the S-O-R paradigm. According to Donovan and Rossiter (1982, p. 36), ‘an adequate S-O-R model has the following requisites: Stimulus taxonomy, a set of intervening or mediating variables and taxonomy of

responses'. In 1974, Mehrabian and Russell suggested a link existed between the variables and the response taxonomy. In later research, Donovan and Rossiter (1982) and Tai and Fung (1997, p. 315) found support for the link and identified that 'an S-O-R model relates factors of the environment (S) to approach-avoidance behaviour (R)'. However, as noted by Mehrabian and Russell (1974), it can be difficult to measure the effects of the physical environment on the customer. These difficulties are highlighted in the next three sections, which relate to the S, the O and the R of Mehrabian and Russell's (1974) model. The difficulties are also further discussed in chapter three, which focusses on the Servicescape.

2.4.1 The (S) Component

According to Aubert-Gamet (1996, p. 27) 'the stimulus factors are physical features (colour, store layout, lighting, music, ambient factors)'. This is the (S) component. The stimulus can offer vast amounts of information to the customer through environmental cues (Tai and Fung, 1997). Iyer (1989) noted that in a shopping context the task environment can act as an external memory and provides vast amount of stimulus information. Mehrabian and Russell (1974) proposed the use of an 'information rate', or 'load' in order to overcome the difficulty in measuring the information the customer receives. Spies et al. (1997, p. 2) noted that 'the information rate usually is higher for new and unusual than for familiar stimuli'. Mehrabian (1976, p. 12) indicated that an 'environment having a high information rate is a 'high-load' or 'loaded' one and a 'low-load' environment is one having a low information rate.'

Information load is a general measure of environmental stimulation that is applicable across many and various social and physical situations. Spies et al. (1997, p. 2) suggested that 'by information rate (we) mean the number of information units that are presented within a certain time interval'. By means of the 'information rate' or 'load' concept the model includes important aspects such as complexity, novelty, crowding and harmony (Mehrabian and Russell, 1974). Tai and Fung (1997, p. 317) agreed and defined the information rate as the 'degree of stimulus from novelty and complexity'.

Novelty can involve the unexpected, the surprising, the new or the unfamiliar. Mehrabian and Russell (1974, p. 82) noted 'the terms novel, rare, expected and surprising all refer to the improbability of an event'. In discussing a novel environment Mehrabian (1976, p. 13) noted 'if a setting is new or unfamiliar, it makes us uncertain'. 'The complexity of an environment has to do with how many elements, features, or changes it contains' (Mehrabian, 1976, p. 13). The more novel and complex an environment the higher the information rate (Tai and Fung, 1997, Mattila and Wirtz, 2006). Mehrabian (1976, p. 13) indicated that 'the more elements or changes, the greater the uncertainty and hence the higher the load'.

The effects that the rate or load can have on the customer can vary. In a high load environment a customer may feel excited, aroused or stimulated, a low load environment can have the opposite affect and cause the customer to feel calm relaxed or even sleepy (Donovan and Rossiter, 1982). Mattila and Wirtz (2006, p 230) concurred and suggested that 'environments are highly arousing, i.e. have a high information, when they are complex, have change or movement in them, and

have new and unexpected elements'. Mehrabian (1976, p. 15) noted that 'the load of a given environment causes certain emotional reactions in a particular person.' Aubert-Gamet (1996, p. 27) concurred and indicated that 'specific environmental stimuli, are said to affect the emotional states of pleasure and arousal, which in turn, affect approach or avoidance behaviours'. The (S) component of environmental stimuli affects the (O) component of the emotional state.

2.4.2 The (O) Component

According to Mehrabian and Russell (1974) it is first necessary to identify the emotional responses that are the immediate result of stimulation and that occur in varying environments. Lindsley (1957, p. 273) indicated that 'emotion is one of the most complex phenomena known to man' and further notes that the 'final description of emotions must be in terms of a reacting mechanism'. According to Mehrabian and Russell (1974, p. 17) 'studies of intermodality associations, physiological responses to stimuli, and the semantic differential all suggest that there exists a limited set of basic emotional (affective, connotative, feeling) responses to all stimulus situations'. In further research Russell and Mehrabian (1976) noted that there are basic emotional responses to all types of stimuli.

Before discussing the basic emotions it must be noted that the Mehrabian and Russell (1974) model makes use of intermodality to identify the emotional responses. Temperature, taste and sound are different types of modalities that can be found. It is important to consider several dimensions of response within each of the modalities (Mehrabian and Russell, 1974). Intermodality refers to the associations

that are used among the modalities. For example commonly accepted thermal associations for various 'spicy' foods is 'hot' and colours such as red, orange and yellow are considered 'warm' (Mehrabian and Russell, 1974). The model uses intermodality in an effort to identify responses common to all types of stimuli, regardless of the sense modality stimulated.

The existence of some basic response dimensions also becomes evident in physiological studies where certain effects are found to be common to stimulations in the sense modalities (Mehrabian and Russell, 1974). In exploring the concept of arousal Berlyne (1960, p. 48) noted that 'psychologists are beginning to recognise degree of arousal as a dimension or continuum. The lower pole of the continuum is represented by sleep or coma, while the upper pole would be reached in states of frantic excitement'. Thayer (1967) concurred and noted that the usefulness of an activation continuum, also called an arousal continuum, has been verified through research studies. The physiological studies support the idea that there are basic reactions and distinguish Pleasure and Arousal as two such dimensions.

Research on Semantic differential scales, which is a type of rating scale designed to measure the conative meaning of objects, events, and concepts, has also supported the idea of basic reactions. The semantic differential has helped to characterize human judgments, or reactions to stimuli of any degree of complexity (Snider and Osgood, 1969). From their research on semantic scaling Osgood et al. (1957, p. 72) suggested that 'three factors appear dominant...and roughly the same orders of magnitude- evaluation, potency and activity'. Osgood and Suci (1955, p. 54) noted that it is remarkable 'that such a large portion of the total variance in human

judgement or meaning can be accounted for in terms of such a small number of basic variables'. The three semantic variables correspond with the three dimensions from physiological studies, Pleasure, Arousal and Dominance. The semantic differential further indicates that the three dimensions are bi-polar; that is, Pleasure extends along a single dimension from extreme displeasure to extreme pleasure, and similarly for Arousal and Dominance (Osgood and Suci, 1955, Snider and Osgood, 1969).

From past research on inter-modality, physiological studies and semantic scaling, Mehrabian and Russell (1974) choose their three basic emotional dimensions that mediate response, the (O) component. These three dimensions are bi-polar and are known as Pleasure- displeasure, Arousal-nonarousal and Dominance-submissiveness and tend to be called PAD (Tai and Fung, 1997). Holbrook et al (1984, p. 729) noted that the PAD dimensions show 'a clear conceptual parallel to Osgood et al. (1957) well established dimensions of meaning, namely, evaluation, activity, and potency'. According to Russell and Mehrabian (1976, p. 63) who supported Osgood et al's (1957) research 'emotional reactions occur in stimulation any sense modality and to stimulation varying in all degrees of complexity or quality'.

According to Tai and Fung (1997) and Gilboa and Rafaeli (2003) Pleasure-displeasure is a state that refers to the degree to which a customer feels enjoyment, happiness, satisfaction or contentment within the environment, Arousal-nonarousal distinguishes between feelings of stimulation, excitement or frenzied arousal and relaxation, boredom or sleepiness and Dominance-submissiveness is the level of control, competence, importance that the customer feels they have over the situation.

Mehrabian and Russell (1974) and Russell (1980) indicated that the Dominance-submissive dimension was not as important as the Pleasure-displeasure and Arousal-nonarousal dimensions. According to Russell (1980) and Donovan and Rossiter (1982), the dominance dimension failed to predict approach-avoidance behaviours. Russell (1980) also noted that additional dimensions are sometimes obtained, but there is little consensus on their interpretation.

Amato and McInnes (1983) suggested that arousal was a direct function of the 'information rate'. Mattila and Wirtz (2006, p. 230) agreed and noted that 'the Arousal dimension depends largely on the information rate or load of an environment' and 'Pleasure is a direct, subjective response to the environment depending on the individuals degree of liking of the environment'. The Mehrabian and Russell's (1974) and Russell's (1980) models contained eight major emotional states: Russell's (1980, p. 1164) model was called 'eight affect concepts in a circular order' and Mehrabian and Russell's (1974) model was called 'Two dimensional of emotion and eight major emotional states'. Both models suggested that any environment will produce an emotional state that can be characterised between the two emotional dimensions of Pleasure and Arousal. Russell (1980, p. 1162) suggested that 'affected states are, in fact, best represented as a circle in a two-dimensional bipolar space'. Bitner (1992, p. 63) agreed and suggested that any environment 'can be located in a two dimensional space reflecting peoples' emotional response to the place'. See figure 2.3 for the depiction of the Mehrabian and Russell (1974) Model.

According to Menon and Kahn (2002) a dimensional approach to explaining emotions has been found to be reliable in past research. Donovan and Rossiter (1982), Donovan et al (1994), Tai and Fung (1997) through the use of the Mehrabian and Russell (1974) model used a dimensional approach in their research. Mehrabian and Russell's (1974) and Russell's (1980) models contain a horizontal dimension to indicate the Pleasure-displeasure dimension and a vertical dimension illustrating the Arousal-nonarousal dimension

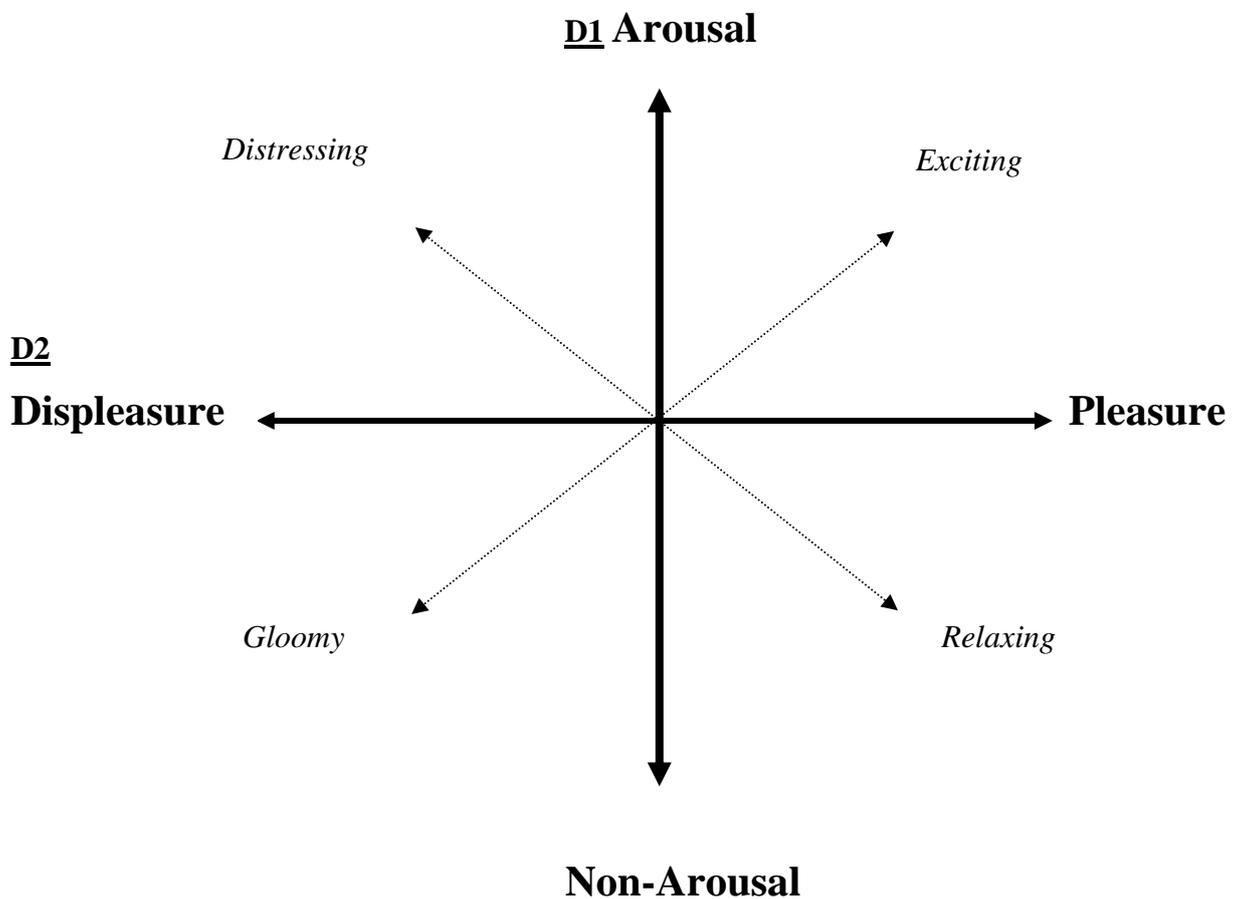


Figure 2.3 Two Dimensions of Emotion and Eight Major Emotional States
Source: Mehrabian and Russell (1974)

(D1) is the first dimension and is called the Arousal-nonarousal dimension. (D2) is the second dimension and is called Pleasure-displeasure dimension. The points of 'distressing', 'relaxing', 'gloomy' and 'exciting' represent emotions that can be found along both dimensions. Mehrabian and Russell (1974) suggested variations in PAD constitute the common core of human emotional responses to all situations. For example, the feeling of boredom or fatigue may be described as one that is low on Pleasure and Arousal, anxiety and distressing rate high on Arousal but low on Pleasure. Relaxation, contentment, and comfort rate high on Pleasure but low on Arousal (Mehrabian and Russell, 1974).

The Mehrabian and Russell (1974) model suggested that any environment will produce an emotional state that can be characterised between the two emotional dimensions of Pleasure and Arousal. Donovan and Rossiter (1982, p. 56) noted that the 'correct emotional combination of pleasantness and arousal created by store atmosphere can stimulate shopping behaviour within the store'. Mehrabian and Russell (1974) hypothesised that Pleasure and Arousal interact, with an increase in Arousal leading to higher levels of approach in pleasant environments and to lower levels of approach in unpleasant environments. This is their first hypothesis, which will be discussed later in this chapter.

Many authors (see appendix 1) have recognised the prevailing role of Pleasure and Arousal in the context of store environment. Within a pleasant environment where a positive atmosphere exists, customers approach behaviour, their willingness to stay longer, spend more money will be higher. In unpleasant environments, the opposite forms and avoidance behaviour will be higher. As Mehrabian (1976, p. 8) indicated

‘it is assumed that people’s feelings or emotions are what ultimately determine what they do and how they do it’. The approach-avoidance response is the (R) component and will be discussed next.

2.4.3 The (R) Component

Responses to the environment can be classed into two opposing behaviours Approach and Avoidance and is called the (R) component. This can be seen in the Mehrabian and Russell model (Figure 2.1). Donovan and Rossiter (1982, p. 41) indicated that ‘such behaviours are a result of the emotional states an individual experiences within the environment’. Mehrabian and Russell (1974, p. 99) hypothesised that Approach behaviours ‘can be increased (or decreased) by simply making the surrounding environment more pleasing (or unpleasant)’.

According to Turley and Milliman (2000, p. 193) ‘approach behaviours are seen as positive responses to an environment such as desire to stay in a particular facility and explore it. Avoidance behaviours include not wanting to stay in a store or to spend time looking or exploring it’. Yalch and Spangenberg (2000, p. 140) concured and suggesed ‘approach-avoidance behaviours can be grouped into four categories based on the type of behaviour: time, exploration, communication, and satisfaction’.

Mehrabian and Russell (1974), Mehrabian (1976), Donovan and Rossiter (1982), Bitner (1992) and Hoffman and Turley (2002) have all classified these responses in the following manner.

1. A desire physically to stay in (approach) or to get out of (avoid) the environment.
2. A desire or willingness to explore or look around the environment (approach) or a tendency to remain inanimate in the environment (avoid) and not interact with it.
3. A desire or willingness to communicate with others in the environment (approach) as opposed to a tendency to avoid or ignore communication attempts from others (avoid)
4. The degree of enhancement (approach) or hindrance (avoid) of performance and satisfaction with the task performers.

Morrin and Ratneshwar (2000, p. 158) noted that ‘these tendencies are often measured in terms of amount of time physically spent in a particular environment or in one’s evaluation of the environment’. Mehrabian and Russell (1974) indicated that these responses are appropriate in describing behaviours within the service facility. Donovan and Rossiter (1982) agreed and indicated that the ‘physical’ can relate to store patronage, the intentions at a basic level to move around the shop, ‘explore’ can relate to the searching of a specific item within the broad or narrow range of offerings, ‘communication’ could be the interaction with staff or with other customers in the environment and ‘performance and satisfaction’ can relate to repeat-shopping or the time and money expenditure in the environment.

Kenhove and Desrumaux (1997, p. 353) noted that the 'model specifies a conditional interaction between Pleasure and Arousal in determining approach-avoidance'. Donovan and Rossiter (1982, p. 39) indicated the condition and make clear 'in a neutral i.e. neither pleasing nor displeasing environment, moderate Arousal enhances approach behaviours whereas very low or very high Arousal leads to avoidance behaviours'. Mehrabian and Russell (1974) noted that approach behaviours of all types increase as a person experiences increased Pleasure. Within a pleasant environment where a positive atmosphere exists customers approach behaviour, their willingness to stay longer, spend more money will be higher. In unpleasant environments the opposite forms and avoidance behaviour will be higher. Bitner (1992) indicated that the same holds true for employees in the service setting.

Within a pleasing environment, the higher the Arousal, the greater the approach behaviour and the same but opposite result holds true for an unpleasant environment, in that high Arousal leads to high avoidance (Donovan and Rossiter, 1982). Gilboa and Rafaeli (2003, p. 197) agreed that 'in pleasant environments, an increase in Arousal was argued to increase approach behaviours, whereas, in unpleasant environments, an increase in Arousal was suggested to motivate more avoidance behaviours.' To date the literature on store environmental stimuli has used the Mehrabian and Russell (1974) model in alternative ways. Many authors over the years have found support for Mehrabian and Russell's (1974) model, while others have questioned the framework (See appendix 1). Over the years the model has been altered slightly or has been built upon in order to suit the role it played in research. For example Bitner (1992) developed a model called the 'servicescape' model which shared similarities with the Mehrabian and Russell (1974) model. Wirtz et al. (2000)

introduced the concept of Target-Arousal in order to understand in what situations the model was useful. By critiquing the model one can then understand fully the benefits of using the model for store environment research. Before critiquing the model however, the role of Dominance will be looked at. As previously mentioned the Dominance dimension was not part of Mehrabian and Russell's (1974) two dimensional model but is part of the PAD conceptualisation of emotions.

2.5 The Role of Dominance

Up until 1999 the role that Dominance may play had been pushed to one side. This third dimension of Dominance-submissiveness is less used in understanding the emotional response which mediating behaviour. Russell and Mehrabian (1976) and Russell (1980) stressed the important of Pleasure and Arousal and not of Dominance. Their models excluded the role of Dominance and did not explain how Dominance may affect behaviour. Donovan and Rossiter (1982) noted that Dominance was not an important factor in determining behaviour. However the reasoning behind not considering the dimension as important in their research could stem from Mehrabian and Russell (1974) themselves who did not stress the importance of the dimension. Foxall and Greenley (1999) pointed out that the failure to find a role for Dominance might be due to the narrow range of customer settings used in past studies. They noted that researchers have generated settings on a random convenience basis and also had focussed on retail settings.

Similar to Russell and Mehrabian (1976), Bellizzi and Hite (1992) and Baker et al (1992) did not focus on Dominance but rather focussed on Pleasure and Arousal. The

lack of knowledge of the Dominance dimension occurs frequently in the literature. Foxall and Greenley (1999, p. 150) noted that 'Dominance has made a poor showing in investigations of the role of emotional mediators of consumer and other human behaviour'. Gilboa and Rafaeli (2003, p. 198) concurred and indicated that 'the role of Dominance in relation to approach-avoidance behaviours remains unclear and has received attention in very few studies'. Yalch and Spangenberg (2000, p. 140) indicated that 'it remains unclear whether difficulties in identifying behaviours associated with Dominance reflect its small influence on behaviour or the need for improved measurement'. In 2000, Yalch and Spangenberg integrated the store environmental factors and shopping behaviours into the Mehrabian and Russell (1974) model. They paid particular attention to music in retail settings within their research. Their findings indicated that all three emotional states, PAD, were affected by the music. Newman (2007) also found support for the role of Dominance and suggested that its dimensionality was evident in an airport setting.

Foxall and Greenley (1999) took a slightly different approach to Donovan and Rossiter's (1982) and Donovan et al.'s (1994) methodology in order to study the dimension of Dominance. Foxall and Greenley (1999) combined the use of a Behavioural Perspective Model (BPM) with the Mehrabian and Russell (1974) model in order to investigate the role of Dominance. According to the BPM, aspects of customer behaviours, such as approach-avoidance and emotional responses, can be predicted from two dimensions of situational influence (Foxall, 1998). The first situational influence is from the scope of the customer behaviour setting. The second influence is formulated by the pattern of utilitarian and informational reinforcement

signalled by the environmental setting, which has been primed by the customers learning history (Foxall, 1998, Foxall and Greanley, 1999).

The customer behaviour setting refers to the actual setting where the customers' behaviour takes place, such as a restaurant or cinema. The setting forms a continuum from closed to open (Foxall, 1998). In a closed setting the consumption or purchases are mostly controlled by staff or management (Foxall and Greanley, 1999). Foxall and Greenley (1999, p. 151) noted that in a bank orderly queues are formed to 'minimise behaviour that is unconnected with the efficient carrying out of transactions'. This would be considered a closed setting and is characterised by negative reinforced behaviour (Foxall and Greanley, 1999).

An open setting lacks physical, social or verbal pressures to conform to a particular pattern of behaviour (Foxall, 1998). In an open setting customers' have control over what shops they visit, what brands to consider and then which ones to buy if desired. Foxall and Greenley (1999, p 151) noted that 'behaviour in an open setting is usually positively reinforced'. The second element of situational influence is the patterns of reinforcement. Foxall and Greenley (1999) indicated that there are two reinforcements: utilitarian and informational. These patterns of reinforcement usually occur together and supply the customer with a clearer understanding of their level of achievement in terms of their purchases and consumption. From their findings Foxall and Greenley (1999) showed that Pleasure, Arousal and Dominance explain customer's verbal expressions of approach-avoidance.

It is also important to emphasise that the responses are verbal and not emotional responses or approach-avoidance behaviours. However the authors indicated that their findings are of importance and that further research should be carried out with the use of BPM. As mentioned the role that Dominance may play in the service environment has gained some attention in recent years (Newman, 2007, Lio and Rody, 2009). However the main focus has been on Arousal and Pleasure (Vilnai-Yavetz and Gilboa, 2010, Morrison et al. 2011, Lin and Worthley, 2012). A critique of the main three Mehrabian and Russell's (1974) hypotheses facilitates in understanding more comprehensively the role that each dimension has played in understanding the emotional response.

2.6 A Critique of the Hypotheses

The O component of the Mehrabian and Russell (1974) model was reviewed by Russell and Mehrabian (1976) and Russell (1980). Russell and Mehrabian (1976) supported the PAD and in later research Russell (1980) developed a similar two-dimensional model based on Mehrabian and Russell (1974) PAD. Russell (1980) indicated that a two-dimensional model was acceptable in explaining emotional states. It was Donovan and Rossiter (1982) who first applied the Mehrabian and Russell (1974) model to the study of store atmosphere. Their study made a major contribution to the literature by establishing the validity of the relationship between store environments, emotional states, and behavioural intentions. Their study drew attention to and found support for Mehrabian and Russell's (1974) first hypothesis.

Since Donovan and Rossiter's (1982) pioneering study, the Mehrabian and Russell (1974) model has been used to research store environments. Over the years there has been support for and against the model and its three hypotheses.

Mehrabian and Russell's (1974) first and second hypothesis will be discussed below, followed by the third hypothesis.

The first hypothesis

Pleasure and Arousal interact, with an increase in Arousal leading to higher levels of approach and affiliation in pleasant environments and to lower levels of approach and affiliation in unpleasant environments.

The second hypothesis

Approach and affiliation behaviours were said to increase linearly as environments are experienced as being more pleasant.

The third hypothesis

The relationship of Arousal with approach-avoidance was said to be an inverted-U shape, with people being most responsive at middle levels of arousal.

Donovan and Rossiter (1982) examined the approach-avoidance behaviour through the use of PAD. Their study supported Mehrabian and Russell's (1974) first hypothesis, that high arousal should be positively correlated with approach behaviour. Amato and McInnes (1983) also examined Mehrabian and Russell's (1974) hypothesis. Their findings gave strong support to the Mehrabian and Russell

first and second hypotheses. Amato and McInnes (1983, p. 121) found ‘that the description of environments in terms of Pleasantness and Arousal provides a parsimonious model for accounting for some behavioural difference across diverse environments’.

Bellizzi and Hite’s (1992) study on the effects of colour used PAD measures as modified by Donovan and Rossiter’s (1982) study, in retail environments. Their findings were consistent with Donovan and Rossiter’s (1982) study, in that they found a statistical association between Pleasure and approach-avoidance behaviour. This concurred with and gave strong support to Mehrabian and Russell’s (1974) first and second hypotheses.

Baker et al. (1992) examined the Mehrabian and Russell (1974) model and specifically looked at ambient and social cues. Their study hoped to refine and extend the work of Donovan and Rossiter (1982). Baker et al. (1992, p. 457) noted that their ‘study supports Donovan and Rossiter’s (1982) finding that the Mehrabian and Russell (1974) model is applicable to a retail setting’ and that ‘affective states produced by the store environment do influence consumers’ willingness to buy’. Thus Baker et al. (1992) supported Mehrabian and Russell (1974) first hypothesis. Donovan et al. (1994) followed up and extended research carried out by Donovan and Rossiter (1982). Donovan et al. (1994, p. 284) indicated that ‘none of the studies has strictly followed the methodology and analysis of the M-R [Mehrabian and Russell, (1974)] model as proposed by Donovan and Rossiter (1982).’ Donovan et al. (1994) remarked that in its modified form, where the Dominance dimension is taken out, that the Mehrabian and Russell (1974) model is useful for the study of

store behaviour. From their research on store atmosphere, Donovan et al. (1994) found support for the second hypothesis but not for the first hypothesis.

Donovan et al. (1994) and Vilnai-Yavets and Gilboa (2010) found that approach behaviours increased linearly as environments were experienced as being more pleasant; this concurs with the second hypothesis. Donovan et al. (1994, p. 289) also noted that ‘Arousal was not significant in pleasant environments’. This did not replicate the Donovan and Rossiter’s (1982) study. This is interesting and indicated further research was essential because Donovan and Rossiter’s (1982) study found support for the first and not the second hypothesis. However both studies, Donovan and Rossiter (1982) and Donovan et al. (1994), stressed the importance of Pleasure and focused on the ‘bi-directional’ effect of Pleasure and Arousal. Vilnai-Yavets and Gilboa (2010) focussed their research on cleanliness and Pleasure and did not examine Arousal at all.

Kenhove and Desrumaux (1997) examined Mehrabian and Russell (1974) model and compared their results with Donovan and Rossiter (1982) and Donovan et al. (1994). Overall their results supported previous research that the Organism-Response part of the Mehrabian and Russell (1974) model is useful in a retail setting. In supporting previous research and adding to it, Kenhove and Desrumaux (1997, p. 364) stressed that ‘both Pleasure and Arousal induced by the store environment are strong predictors of behavioural intentions.’ Donovan and Rossiter (1982) and Donovan et al. (1994) had only stressed the importance of Pleasure. Tai and Fung (1997) also used the Mehrabian and Russell (1974) model to research in-store buying behaviour. Their results reinforced conclusions made by Donovan and Rossiter (1982),

Donovan et al. (1994) and Kenhove and Desrumaux (1997) findings that supported the model. Tai and Fung (1997, p. 331) noted that ‘the interaction between Pleasure and Arousal is partly confirmed by the study’. They supported Mehrabian and Russell’s (1974) first and second hypothesis.

Consistent with previous research, Mattila and Wirtz (2001) and Morrison et al. (2011) found that adding pleasant environmental cues can enhance a customer’s shopping experience. They used the Mehrabian and Russell (1974) model in their methodology. Mattila and Wirtz (2001) found that when ambient scent and music are congruent with each other in terms of their arousing qualities, customers rate the environment significantly more positively. They also noted that customers have impulsive behaviour, higher levels of approach and experience enhanced satisfaction then if the variables are at odds with each other. Similarly, Morrison et al. (2011, p. 562) found that ‘arousal induced by music and aroma results in increased pleasure levels, which in turn positively influence shopper behaviors, including time and money spend, approach behavior, and satisfaction with the shopping experience’. This concurred with Mehrabian and Russell (1974) second hypothesis.

Over the years, not everyone agreed that the model was useful in store environment research. As much as Kenhove and Desrumaux (1997) supported the model, they also criticised and contradicted it. They noted that their study found results that did not support the hypothesis of ‘bi-directionality’ between Pleasure and Arousal. Kenhove and Desrumaux (1997) and Dubé et al. (1995) both contradicted Mehrabian and Russell (1974) second hypothesis. Kenhove and Desrumaux (1997, p. 363) indicated that ‘an attempt to dampen Arousal in an unpleasant store environment will

create more avoidance behaviour intentions'. Dubé et al. (1995, p. 314) noted that 'music induced pleasure had a stronger positive impact under low and high arousal than under moderate arousal and, arousal had stronger effects under low and high pleasure, compared to moderate pleasure.' Their results showed that high Pleasure music enhances the desire to affiliate at the two extremes of the Arousal dimension, this disagreed with Mehrabian and Russell's (1974) second hypothesis. Dubé et al. (1995) noted that the behaviour could be due to the fact that in a commercial setting customers will approach service staff in order to reduce their anxiety.

Dubé et al. (1995) also contradicted Mehrabian and Russell's (1974) third hypothesis. The third hypothesis states that the relationship of Arousal with approach-avoidance behaviours should be an inverted U-shape, with people being more responsive at middle levels of arousal, as per figure 2.4. Amato and McInnes (1983, p. 119) supported Mehrabian and Russell's (1974) third hypothesis by indicating that 'arousal and information-rate were curvilinearly related to affiliative behaviour'. They found that the highest level of approach responsiveness were in environments of medium Arousal (Amato and McInnes, 1983). See point marked X on figure 2.4. In contradicting Mehrabian and Russell (1974), Dubé et al. (1995, p. 315) found that it was a 'U-shaped relationship that emerged between Arousal and desire to affiliate under high-pleasure background music', as per figure 2.5. However, Dubé et al. (1995) agreed with Mehrabian and Russell's (1974) model that higher desire to affiliate is associated with increasing levels of Arousal.

Many authors, as previously cited, have indicated that further research is needed on the Mehrabian and Russell's (1974) framework. Authors have indicated that in some

environments the Mehrabian and Russell's (1974) model is useful and in other environments it is not. As can be seen from the critique of the hypothesis, there has been some debate of the appropriateness of the framework in different situations. Wirtz et al. (2000) suggested a new variable called 'Target-Arousal level' could be very important in understanding the role the model plays and in which situations it is useful. Wirtz et al. (2000) and Mattilla and Wirtz (2006) supported part of Mehrabian and Russell's (1974) framework but only in certain 'High Target-Arousal' situations. Over the years, authors have agreed and disagreed with Mehrabian and Russell's (1974) hypotheses but had not specified if the situation had been 'High' or 'Low' target-arousal.

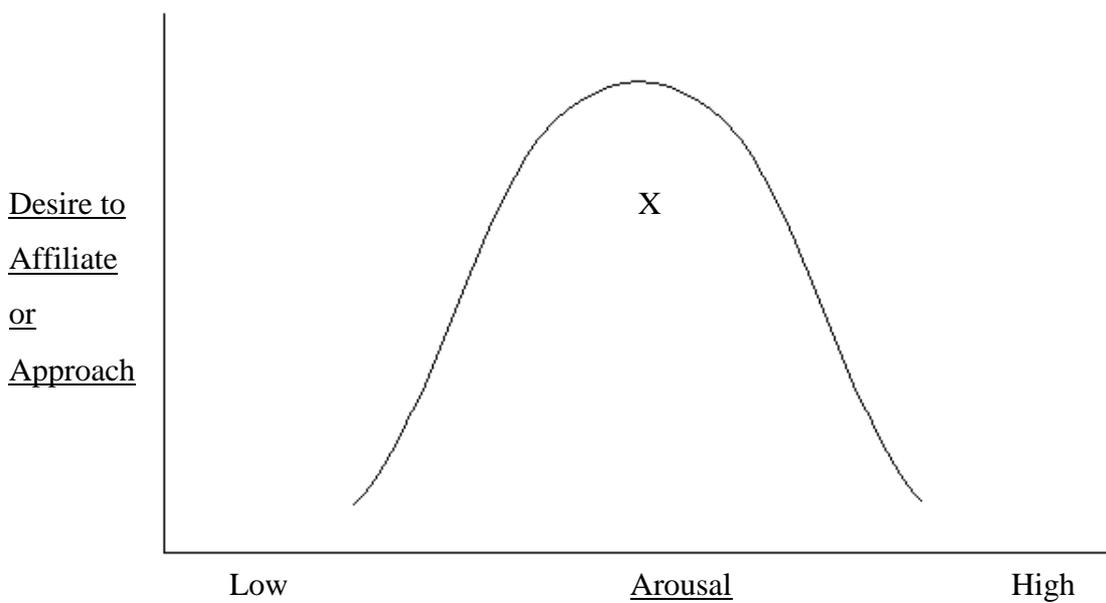


Figure 2.4 The Inverted U Shaped Graph
Source Adapted from Mehrabian and Russell (1974)

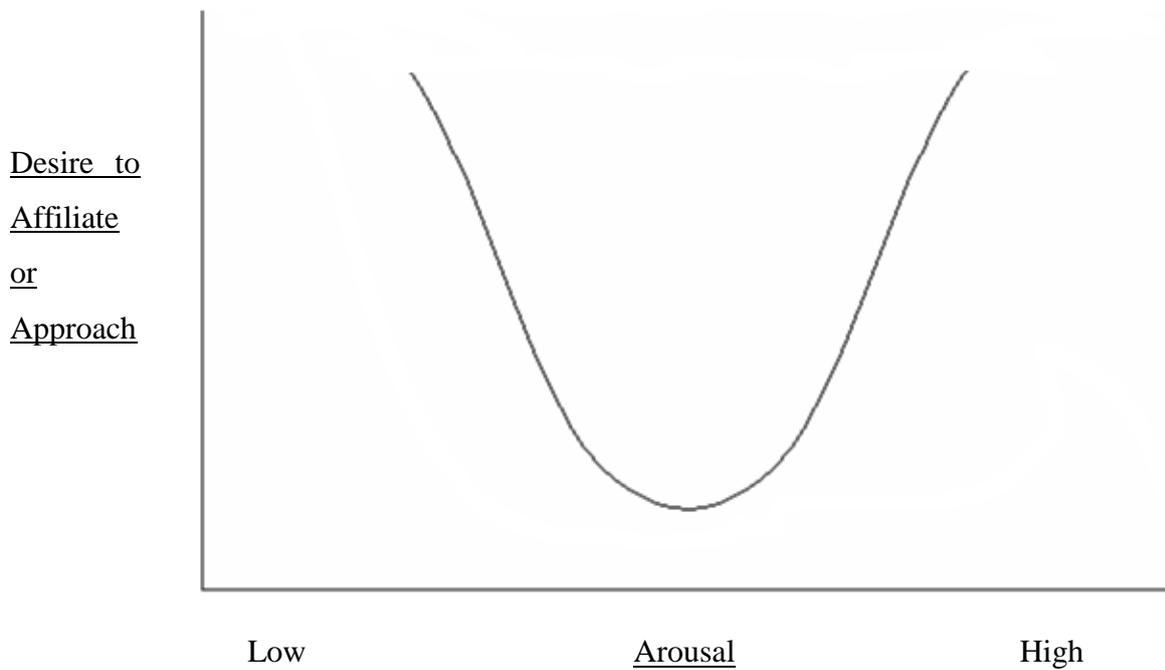


Figure 2.5 The U Shaped Graph

Source: Adopted from Dubé et al. (1995)

2.7 Target-Arousal

Wirtz et al. (2000) suggested that Target-arousal is a beneficial factor in assessing satisfaction. Target-Arousal refers to the level of Arousal a customer seeks in a service environment prior to actual service consumption (Mattila and Wirtz, 2006). An example of a likely High Target-Arousal would be customers going to a nightclub or amusement park, while customers going to a bank are more likely to have Low Target-Arousal (Wirtz et al., 2000, Mattila and Wirtz, 2006).

Wirtz et al. (2000, p. 347) results indicated ‘that the traditional Pleasure-Arousal interaction effect might be limited to High Target-Arousal situations.’ Wirtz et al. (2000, p. 360) found that ‘under High Target–Arousal, that is, in pleasant (unpleasant) conditions the higher the Arousal level, the more positive (negative) the

satisfaction evaluation'. In a High Target-Arousal situation, their findings were consistent with Mehrabian and Russell's (1974) first hypothesis. However, Wirtz et al. (2000, p. 360) also contradicted the Mehrabian and Russell's (1974) model indicating that 'in the Low Target-Arousal conditions, subjects failed to exhibit higher levels of satisfaction in pleasant yet high Arousal environments'. They introduced the concept of Target-Arousal to understand the interplay between Arousal and Pleasure in a service satisfaction context.

Mattilla and Wirtz (2006) further focused on the element of 'Target-Arousal'. Their research was an extension on research from Wirtz et al. (2000). In their research Mattila and Wirtz (2006) manipulated High and Low Target-Arousal levels through the use of a short narrative. Mattilla and Wirtz (2006, p. 238) indicated that their results were similar to Wirtz et al. (2000), in that 'under pleasurable conditions, increasing Arousal levels enhanced satisfaction when customers had High Target-Arousal, while having the opposite effects when customers had Low Target-Arousal'. In the High Target-Arousal situation this concurred with Mehrabian and Russell's (1974) first hypothesis. Mattilla and Wirtz (2006) research further went on to demonstrate that an attractive store might be perceived as unpleasant or pleasant depending on whether the environment matches the customers desired Target-Arousal level.

In other research, Chebat and Michon (2003, p. 537) indicated that an alternative approach to evaluating store environments might be more beneficial as 'the approach-avoidance model strongly stressed the emotional effects of the environment to the detriment of the study of the meaning of the environment'.

Chebat and Michon (2003) argued for the use of Lazarus (1991) theory as an alternative to Mehrabian and Russell's (1974) model. Interestingly, Tai and Fung (1997) indicated that the Mehrabian and Russell (1974) model is not as simplistic as it looks but rather the environmental psychological components may affect each other in both directions. Lazarus's (1991) theory suggested that the components affect each other in both directions and will be considered next.

2.8 Lazarus (1991) Cognition Theory of Emotion Model

Chebat and Michon (2003) compared two models in order to test the effect of ambient odours in a shopping centre environment. They used an adaptation of the Mehrabian and Russell model as used by Donovan and Rossiter (1982) and Lazarus' (1991) cognitive theory of emotion. Lazarus' (1991) cognitive theory of emotion had not been used before within the literature of store environments. Chebat and Michon (2003) dealt with two completely opposite schools of thought within their research. Mehrabian and Russell (1974) took the emotion-cognition approach and Lazarus (1991) took the cognition-emotion school of thought. Lin (2004) indicated that over the years researchers have argued for both sides; on the one hand that cognitive state precedes emotional states and on the other hand that emotional states precede cognitive states. Chebat and Michon (2003, p. 531) indicated that 'there is a definite need to further understand the interplay and the hierarchy of cognition and emotion in the study of environmental cues'.

Lazarus' (1991) cognitive theory stated that cognitive states precede emotional states during the process of evaluation or appraisal (Lin, 2004). According to Chebat and

Michon (2003, p. 532) the cognitive theory of emotion 'presumes that the causal role of cognition as a necessary but not sufficient condition to elicit emotions'. Lazarus (1991) suggested that while cognition does not automatically lead to emotion, emotion cannot occur without cognition. The theory stated that reason is part of emotion. Bigné et al. (2005, p. 835) noted that the theory suggested 'external and internal cues must be appraised in terms of one's experience and goals'. The appraisal of the relationship between the person and the environment is necessary, because without a personal appraisal there will be no emotion; when an appraisal is made, an emotion of some kind is unavoidable (Lazarus 1991). Lazarus (1991) also indicated that emotion may make customers aware of environmental factors that may be significant. Lazarus's (1991) theory focused attention on the relationship between, cognition, emotion and behaviour.

Though Tai and Fung (1997) do not specifically suggest Lazarus (1991) cognitive theory of emotion as an alternative, their findings indicated that it may play an important role. They suggested that the three components, environmental stimuli, emotional states and approach-avoidance responses, affected each other. Lazarus (1991) does not view emotions as discrete isolated units that can exclusively be defined by actions or reactions, but rather they are connected to our environmental conditions and to our personal states of well-being. Lazarus (1991) theory suggested a link exists in both directions between the components. He indicated that the relationship between emotion and cognition is bi-directional, in that emotion influences cognition and cognition brings forth emotion. It is clear from previous research that environmental stimuli affect shoppers' behaviour and their affective

state but further research needs to be conducted on how the three components affect each other (Tai and Fung, 1997).

Chebat and Michon (2003) found support for Lazarus (1991) cognitive theory of emotion. This theory contradicted the Mehrabian and Russell (1974) approach-avoidance model. Chebat and Michon (2003, p. 537) indicated that within this study it was found 'that odours do impact significantly on perceptions of both product quality and shopping environment'. They also noted Pleasure and Arousal contribute very little to spending, but do note that the contribution is of significance. Overall Chebat and Michon (2003) indicated that within the literature of service environments the Approach-Avoidance model has strongly stressed the emotional effects, however they also note that the model may have been overstated within the literature. Bigné et al. (2005) also tested Mehrabian and Russell's (1974) model and Lazarus' cognitive theory. Their research was similar to Chebat and Michon (2003) and they hoped to fill the gap between emotions and cognition. Bigné et al. (2005) indicated that the Pleasure dimension positively influences loyalty behaviour. This supports Mehrabian and Russell's (1974) model. However, overall Bigné et al. (2005) found that Lazarus (1991) cognitive theory of emotion better explains the effect of Pleasure on satisfaction and loyalty.

2.9 Conclusion

Overall through the past four decades there have been a number of difficulties in assessing Mehrabian and Russell (1974) model and hypotheses. Firstly, it is important to note that customers seek pleasant environments and due to lack of

patronage in unpleasant environments it can be difficult to adequately assess the hypotheses (Donovan and Rossiter 1982, Donovan et al 1994). Secondly, within the literature there has been little support to recognise the role of Dominance (Foxall and Greenley 1999, Newman 2007). As mentioned Foxall and Greenley (1999, p. 150) noted that ‘the failure to find a role for Dominance might have been predictable given the narrow range of customer settings’ used in past research. These are two aspects that have been difficult to confirm due to lack of appropriate environmental settings being used in research.

Thirdly, according to the Mehrabian and Russell (1974) model Pleasure and Arousal are correlated dimensions. Kenhove and Desrumaux (1997) reflected that Pleasure and Arousal are correlated yet independent dimensions and failure to distinguish the two factors can result in measurement and fit errors. In their study Donovan et al. (1994) indicated a possible failure to construct an unambiguous arousal factor. Mattilla and Wirtz (2006) suggested that Target-Arousal is an unexplored concept that could be beneficial in assessing Approach-Avoidance behaviours.

Finally, Chebat and Michon (2003) suggested an alternative model for assessing emotions, the Lazarus (1991) model. Nevertheless, Donovan and Rossiter (1982), Donovan et al (1994), Foxall and Greenley (1999) and Mattila and Wirtz (2006) Newman et al. (2007), studies all indicated that the Mehrabian and Russell (1974) model is a beneficial basis for exploring the ‘bi-directional’ relationship and that further research is imperative. This research follows the call for further analysis of the Mehrabian and Russell (1974) model.

The next chapter introduces the environmental stimuli (S) that have been specifically used in the services literature. Bitner (1992) developed a framework called the servicescape to examine the environmental stimuli in the services literature. Hightower et al. (2002) indicated that Mehrabian and Russell (1974) model is an influencing part of the Servicescape literature. Bitner's (1992) Servicescape model shared similarities to the Mehrabian and Russell (1974) model. In her model, Bitner (1992) defined the physical environment as the man made built environment or 'Servicescape'. Though there are similarities between the models, Bitner's (1992) framework is unique in its extent of synthesis; the framework incorporates both customers and employees in their interactions. Compared with Mehrabian and Russell's (1974) model, which only focuses on emotional responses, the Servicescape model focuses on many aspects of the environment, the physical environment, holistic environment, internal response moderators, internal responses and behaviours.

3 CHAPTER 3 Servicescape

What makes consumers buy where they do? Not prices, not quality, not services, but
the personality of the retail store

Martineau (1958, p. 47)

3.1 Introduction

Millions of dollars are spent by retailers each year on special lighting, background music, carpeting and fixtures, all with the hope of creating an atmosphere that is conducive to retail success' (Gulus and Bloch, 1995, p. 95).

This chapter provides an in-depth review on Bitner's (1992) Servicescape model. In doing so each of Bitner's three dimensions of Ambience, Space & Function and Signs, Symbols & Artefacts are examined. As discussed in chapter two, Mehrabian and Russell (1974) model has clearly influenced Bitner's (1992) servicescape model. Bitner's (1992) model identifies a connection between the servicescape (S), internal responses (O) and a customer's behaviour (R). Though Bitner's (1992) model was initially designed for bricks and mortar stores its influence has also been recognised within online servicescapes (Hopkins et al., 2009, Harris and Goode, 2010). A social-servicescape model has also been developed and this will be discussed at the end of the chapter

3.2 Bitner's (1992) Servicescape

Tombs and McColl-Kennedy (2003, p. 450) indicated that 'one of the most widely cited typologies of the service encounter, and its effects on those within in it, is Bitner's servicescapes model'. See figure 3.1 for depiction of the model. Retailers have also acknowledged the importance of the servicescape as a tool for market differentiation and formulating marketing programs (Levy and Weitz, 2007, Orth et al., 2012). The concept of designing attractive artificial environments is not a new

discovery but goes back to ancient times (Kotler, 1973, Eze and Harris, 2007). It was Booms and Bitner (1981, p. 36) that defined the servicescape as 'the environment in which the service is assembled and in which seller and customer interact combined with tangible commodities that facilitate performance or communication of the service'. Bitner (1992, p. 67) reiterated and indicated that 'through careful and creative management of the servicescape, firms may be able to contribute to the achievement of both external marketing goals and internal organisational goals'.

Since the servicescape was formed there has been widespread use of the model in assessing, evaluating and understanding store environments and their atmospheres (Wakefield and Blodgett, 1994, Aubert-Gamet, 1996, Turley and Milliman, 2000, Hightower et al., 2002, Tombs and McColl-Kennedy, 2003, Kim and Moon, 2009, Lin and Worthley, 2012). Oakes (2000) developed a framework based on Bitner's framework but the framework focussed solely on music. The framework was called the 'Musicscape model' (Oakes, 2000). Similarly Bone and Ellen (1999) developed a framework on 'olfaction'. The framework was called the olfaction model. Both of these factors are part of Bitner's framework and will be discussed in detail in section 4.1 on Music and 4.4 on Olfaction.

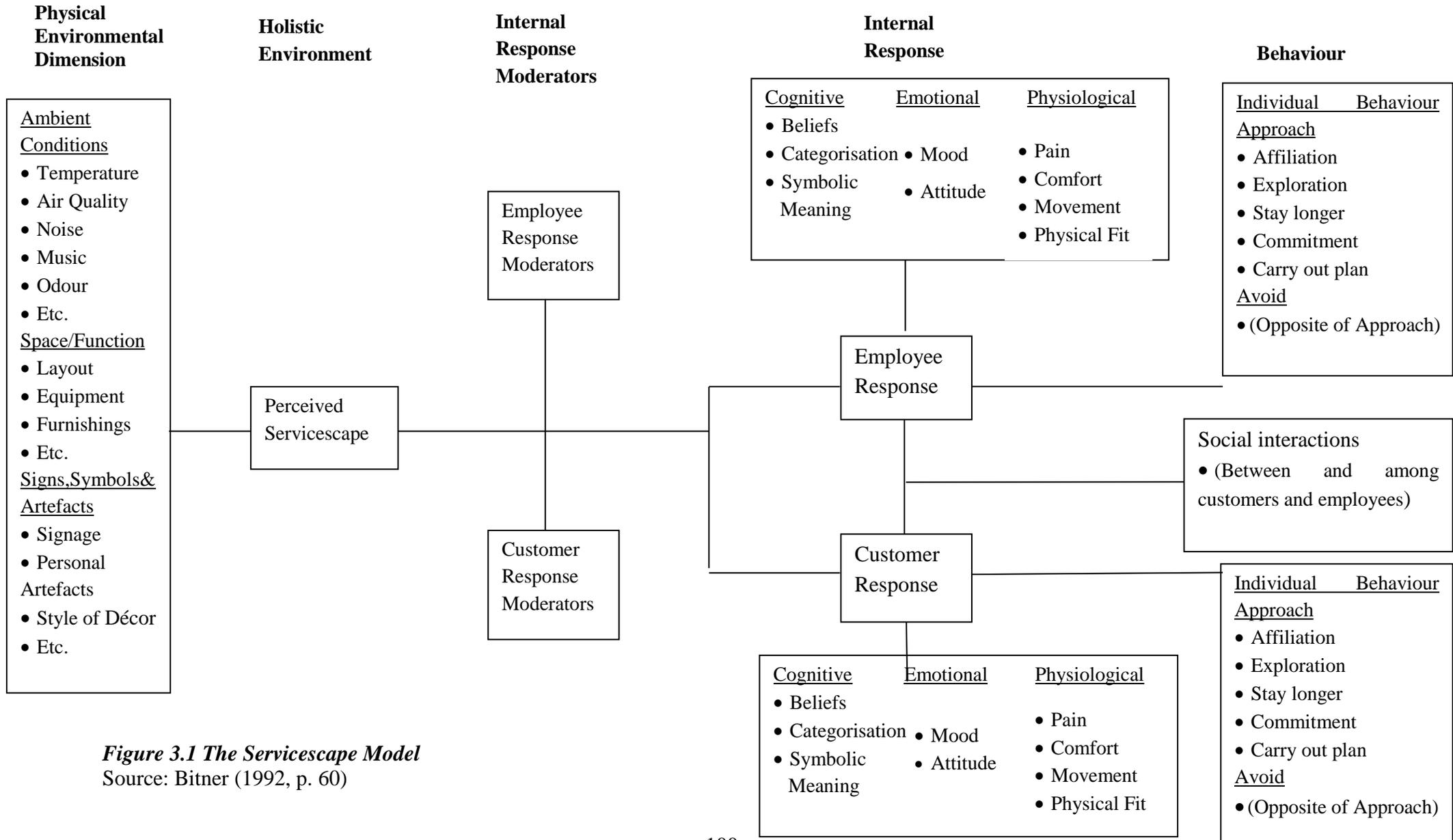


Figure 3.1 The Servicescape Model
 Source: Bitner (1992, p. 60)

Grace and O' Cass (2004, p. 451) noted that the service environment is 'complex as it involves a combination of processes, people and facilities'. Bitner (1992, p. 57) noted that 'because the service generally is produced and consumed simultaneously, the customer is 'the factory', often experiencing the total service within the firms' physical facility.' The customer can not touch, see, smell or feel a service in the same manner as a tangible good (Shostack, 1977, Bitner and Zeithaml, 2003). The intangibility of a service indicates that the service cannot be physically felt in the same manner as a product.

Hoffman and Turley (2002) proposed that much can be gained by examining the role of the servicescape because of the intangible nature of services. Shostack (1977) suggested that the more intangible a service is, the greater is the need to provide tangible, physical evidence. The physical evidence is assumed to be important because in the absence of a material product customers use tangible cues to assess the quality of service providers (Aubert-Gamet, 1996, Aubert-Gamet and Cova, 1999, Reimer and Kuehn, 2005, Ha and Jang, 2012). Lin (2004, p. 164) agrees with Aubert-Gamet and Cova (1999) and further suggests that 'servicescapes are not only important component of a customer's impression formations, but also an important source of evidence in the overall evaluation of the service itself'. Similar to Mehrabian and Russell's (1974) model, Bitner's (1992) model suggests that the environmental stimuli, the (S) component affects the (O) component which in turn affects the (R) component.

Bitner (1992) concentrates on the (S) component and indicates that there are three physical environmental dimensions that can provide evidence to the customer, Ambient conditions, Spatial & Function and Signs, Symbols & Artefacts. Shostack (1977) indicated that environmental stimuli are controllable, thus suggesting that Bitner's (1992) three dimensions are controllable. According to Hoffman and Turley (2002, p. 35), 'servicescapes or atmospherics have the means of providing the 'evidence' that assists customers in making subjective evaluations of service products'. Before the servicescape had been defined, Kotler (1973) coined the term 'atmospherics' to describe the intentional control and manipulation of environmental cues in the service environment.

Kotler (1973, p. 50) identifies atmospherics as 'the effort to design buying environments to produce specific emotional effects in the buyer that enhances his purchase probability'. Milliman (1986) noted that atmospherics is a term used to describe the experience that is 'felt' but not always seen. McKinney (2004, p. 271) agreed and also noted that 'atmospheric variables are used to create differences in retail environments to maintain a competitive advantage'. Wright and Noble (1999) indicated that by allocating active attention to the understanding of atmosphere retailers can improve sales. In general 'having atmosphere', a term often used by customers of services, refers to a service environment having a 'good' or 'enjoyable' environment. Kotler (1973) noted that the physical surroundings, the servicescape can evoke pleasant feelings for the customer. Atmospherics can evoke a range of emotional reaction and also influence the actual nature of the customer-employee interaction (Mehrabian and Russell, 1974, Hui

et al., 1997, Foxall and Greanley, 1999, Machleit and Eroglu, 2000, Brown and Lam, 2008, Ha and Jang, 2012).

Many authors refer to Bitner's (1992) framework to describe the dimensions related to the servicescape. Wakefield and Blodgett (1994, p. 47) make reference to 'two important aspects of the servicescape 'spatial layout and functionality', and 'the elements related to aesthetic appeal'. In further research Wakefield and Blodgett (1996, p. 47) concur with Bitner (1992) and suggest that she 'identifies three primary dimensions of the servicescape that influence customers' holistic perceptions of the servicescape'. Lam (2001, p. 190) indicated that the 'store environments, the physical surrounding of a store, is made up of many elements, including music, lighting, layout, directional signage and human elements, and can be divided into external environmental and internal environment[that is the external and interior of a store]'.

Hoffman and Turley (2002, p. 35) concurred with Lam (2001) and established that in broad terms the servicescape consist of three components, 'facility exterior, facility interior and other tangibles'. Each of Hoffman and Turley's (2002) components coincide with Bitner's (1992) three dimensions. The conceptual framework, illustrates the complex mix of environmental stimuli that can influence the internal response and external response of both employees and customers (Bonnin, 2006). Bitner (1992, p. 59) indicates that the three dimensions influence important customer and employee behaviours, 'a variety of objective environmental factors are perceived by both customers and employees and both groups may respond cognitively, emotionally, and

physiologically to the environment'. Bitner (1992) argues that the service setting can affect customers' emotional, cognitive, and physiological responses, which in turn influence their evaluations and behaviours. Aubert-Gamet (1996, p. 27) concurs and indicates that 'the physical stimuli of the environment affect the emotional states of individuals, and therefore their behaviour.'

Some have argued for an extension of Bitner's (1992) three dimensions to include a 'social' dimension (Tombs and McColl-Kennedy, 2003, Hightower, 2010, Nguyen et al., 2012). However Bitner (1992) herself focussed on the physical aspects of the environment. She (1992, p.58) indicated that 'a clear implication of the model presented here is that the physical setting can aid or hinder the accomplishment of both internal organizational goals and external marketing goals'. The three dimensions of Bitner's (1992) framework will be examined in detail before discussing the social aspect of the servicescape.

Ambient condition is the first dimension in Bitner's (1992) framework. The ambient conditions are background features such as temperature, air quality, noise, music, lighting and odour (Bitner, 1992). Aubert-Gamet (1996, p. 29) indicated that 'ambient factors are background conditions that exist below the level of immediate awareness and typically draw attention only when they are absent or unpleasant, for example, temperature and noise levels'. Tombs and McColl-Kennedy (2003) suggested that the ambient factors parallel Kotler's (1973) atmospherics factors. Kotler (1973) indicated that the five main human sensory channels of sight, sound, scent, taste and touch

contribute to the atmosphere of the service. Kotler (1973) and Bitner (1992) are both consistent in identifying that the five senses can affect the customer however neither author puts emphasis on the factor of taste. Kotler (1973, p. 51) indicates ‘an atmosphere is seen, heard, smelled, and felt, but not tasted. At the same time, certain artefacts in an atmosphere can activate remembered tastes’.

The service environment is specially designed in its layout for both the employee and the customer. Space/function or as sometimes referred to as spatial layout is the second dimension of Bitner’s (1992) model. According to Tombs and McColl-Kennedy (2003, p. 450) ‘spatial layout and functionality are considered important factors as the spatial relationship of items within the servicescape and their ease of use help facilitate the provision of the service’. Bitner (1992, p. 66) indicated that ‘special layout refers to the ways in which machinery, equipment, and furnishings are arranged, the size and shape of those items. Functionality refers to the ability of the same items to facilitate performance and the accomplishment of goals’. Lin (2004, p. 168) concurred and noted that ‘the furnishings in a servicescape link the space with its occupants and convey the personality of the servicescape through form, line,[and] colour.’

In a shopping environment layout represents the task environment (Iyer, 1989). Wakefield and Blodgett (1996, p. 47) suggested that ‘an effective layout will provide for ease of entry and exist, and will make ancillary service areas such as concessions, restrooms and souvenir stands more accessible’. Lin (2004, p. 168) concurred with this and further suggested that ‘the furniture placement may convey a sense of enclosure,

define spatial movement, function as walls, and communicate visible or invisible boundaries’.

The third dimension ties in closely with layout and function. Signs, symbols and artefacts is Bitner’s (1992) third dimension. The third dimension will contain tangibles which can be found on both the exterior and the interior of the service encounter. The dimension refers to the labels, brand names, name of company, name of department store, directions of exit and entry, as well as communicating rules of behaviour and implicit meanings (Bitner, 1992). The exterior tangible variables can be storefront, marquee, entrance, display windows and the interior tangible variables can include, flooring, wall textures and overall cleanliness (Turley and Milliman, 2000). Tombs and McColl-Kennedy (2003) indicated that ‘signs, symbols and artefacts are features designed into the environment, which provide cues about the service provider to the users of the service’. Bitner (1992, p. 66) agreed and indicated that ‘signage can play an important part in communicating firms image’.

As noted by Shostack (1977) and Wakefield and Blodgett (1996), the dimensions of the environmental stimuli are controllable and help in communicating an atmosphere to the customers. ‘The common linkage across all these stimuli is that their presence in a consumption setting is purposively planned and they remain under managerial control’ (Rosenbaum and Massiah, 2011, p. 475). Within the literature there is growing recognition that store interiors and exteriors are controllable and can be designed in such

a way to create specific feelings and attract customers (Kotler, 1973, Kearney et al., 2007).

3.3 Servicescape Elements

As mentioned, the servicescape, which has also been referred to as ‘environmental stimuli’ (Mehrabian and Russell, 1974) or ‘atmosphere’ (Kotler, 1973), consists of many tangible and intangible elements. Milliman (1986, p. 286) indicated that the atmosphere consists of elements such as ‘brightness, size, shape, volume, pitch, scent, freshness, softness, smoothness, and temperature’. These elements can be found in Bitner’s (1992) servicescape factors or sense modalities of music, colour, lighting, layout or olfaction. Lawless (1991, p. 361) noted ‘that any sense modality provides information to an organism so that environmental events may be perceived and acted upon’. Herrington and Capella (1996, p. 26) concurred and indicated that ‘within service environments customers can be exposed to numerous stimuli, all of which potentially affect how customers act, what they buy, and their satisfaction with the service experience’. Yalch and Spangenberg (1990) suggested that different combinations of the servicescape elements can help create different atmospheres. Mattila and Wirtz (2001, p. 287) pointed out that ‘designing servicescapes is often considered an art’.

For example, Yalch and Spangenberg (1990) illustrated that restaurants may use bright lighting and fast tempo music to encourage rapid turnover when demand for tables is high but when demand is low they will use dim lighting and slow music to encourage

customers to linger and consume more. Mattila and Wirtz (2001, p. 274) concurred and noted that ‘matching ambient stimuli might lead to higher evaluations of the store environment, more positive behavioural responses and higher satisfaction level than mismatching’. Spangenberg et al. (2005, p. 1583) point out that ‘although environmental stimuli have been found to influence shopping behaviour, empirical knowledge of how these variables interact to affect shopper perceptions and actions is lacking’. Music is the first of the servicescape variables that will be discussed, followed by colour, olfaction, lighting and then layout.

3.3.1 Music

From the large number of environmental stimuli, background music has been identified as one of the most influential elements (Andersson et al. 2012). According to Turley and Milliman (2000, p. 195) ‘music is the most commonly studied general interior cue’. Within everyday situations the effects that music can have on our mood is apparent. Tansik and Routhieaux (1999, p. 70) note that ‘there is substantial literature that predicts that music can have an effect on people’s anxiety or mood state’. ‘Music has been known for centuries to have a powerful effect on human response’ (Sweeney and Wyber 2002, p. 51). Yalch and Spangenberg (1990, p. 33) recognised that ‘music clearly can alter one’s mood, as is evidenced by its use in movies to augment various scenes’. Listening to favourite upbeat songs in the morning can help lift moods, the opposite can also hold true for songs that are perceived as sad. Bruner (1990, p. 94) noted ‘that music has long been considered an efficient and effective means for triggering moods’.

Sweeney and Wyber (2002, p. 51) concurred and indicated that 'music is particularly known for its effectiveness in triggering moods'. Playing music is like adding a positive feature to the service environment and the outcome is a more positive emotional evaluation of the service environment (Baker et al., 1992).

Milliman (1982) research was a starting point for the investigation into music and its effect on behaviour. Since then music has found to be an important atmospheric variable in creating in-store experiences for the customer (Morrison and Beverland, 2003, Lin, 2010, Andersson et al. 2012). Spangenberg et al. (2005) indicated that it is an environmental cue which has been demonstrated to affect consumer behaviour. Dubé and Morin (2001, p. 108) point out that 'in the retail industry, a significant effort has been made over the last decade in purchasing background music inclined to please target clientele and to create the appropriate atmosphere'. Yalch and Spangenberg (1993) suggested that music is a particularly appealing atmospheric element because it is relatively inexpensive, easily changed and has predictable appeals to customers based on their age, gender and life styles.

Milliman (1982) indicated that it was possible to influence behaviour with music. Mattila and Wirtz (2001, p. 276) noted that 'music is capable of evoking complex affective and behavioural responses in consumers'. Music can improve the evaluation of the in-store environment; this then can have a positive spin off for how consumers approach the store environment (Hui et al., 1997). Spangenberg et al. (2005) concur and suggest that 'musical stimuli are a powerful means of influencing consumers' affective

responses in retail environments, thereby influencing evaluations of, and behaviours within retail settings'. Tanisk and Routhieaux (1999, p. 70) also reflect upon the effects of music in medical service environments, 'soft or calm music has an especially positive effect in reducing stress and anxiety in a variety of environments, including medical situations.

Kotler (1973) suggested that the notion that background music can influence behaviour is derived from atmospherics. According to Yalch and Spangenberg (1990, p. 32) 'music is one of the most frequently used atmospheric factors to enhance the delivery of services to customers'. Chebat et al. (2001, p. 115) suggested that 'retailers often use background music in order to enhance the atmosphere of their stores'. Combined with other environmental stimuli music can establish a certain ambience or atmosphere (Milliman, 1986, Yalch and Spangenberg, 1990, 2000, Oakes, 2000, Chebat et al., 2001, Dubé and Morin, 2001, Lin, 2010, Morrison et al. 2011). Morrison and Beverland (2003, p. 78) note that 'classical music used in conjunction with soft lighting and multiple salespeople helps create a prestigious image in a retail setting'.

Many authors note that music must 'fit' in with its environment in order to create a desired atmosphere (Chebat et al., 2001, Dubé and Morin, 2001, Morrison and Beverland, 2003, Beverland et al., 2006). Chebat et al. (2001) noted that 'music fit' was as an important concept, 'music fit' refers to the degree that the music suits the environment. Morrison and Beverland (2003) indicate that 'music fit' is a complex and evolving concept. Baker et al. (2002) agreed and noted that 'fit' concerns the

congruency between music and other atmospheric in store variables, such as colour and lighting. Beverland et al. (2006) indicated that ‘fit’ between a stores atmospherics and a stores image is crucial. Chebat et al. (2001, p. 122) concurred that ‘pleasant music is not sufficient to help salespersons; it may even hinder their persuasive efforts if the music is considered as not fitting to the sales encounter’. Music needs to be used strategically in an effort to ensure ‘fit’ for the stores image (Dubé and Morin, 2001, Lin, 2010). Yalch and Spangenberg’s (1993) research showed that consumers may spend more money and buy more when the music closely fits or matches the musical tastes of the shoppers.

Research has indicated that certain music types are more appropriate for certain stores than others and a mis-match of music with store image can have negative affects (Machleit and Eroglu, 2000, Yalch and Spangenberg, 2000). Morrison and Beverland (2003, p. 78) indicated that a ‘mismatch between store type and experiential strategy, including the use of music, could have negative affects on consumers’. From their study Morrison and Beverland (2003, p. 82) identified the ‘importance of a multilayered fit between in-store music, the stores strategic approach, and its environment’

Kellaris and Kent (1991) noted that music is not a one-dimensional stimulus but rather a multidimensional or multilayered stimulus. Bruner (1990, p. 94) agreed and indicated that ‘music is not simply a generic sonic mass, but rather a complex chemistry of controllable elements’. Oakes (2000) developed a framework to identify these controllable elements. Oakes (2000) named the framework the ‘Musicscape’ model. The model identifies the effects of music on customer feeling states. See figure 3.2.

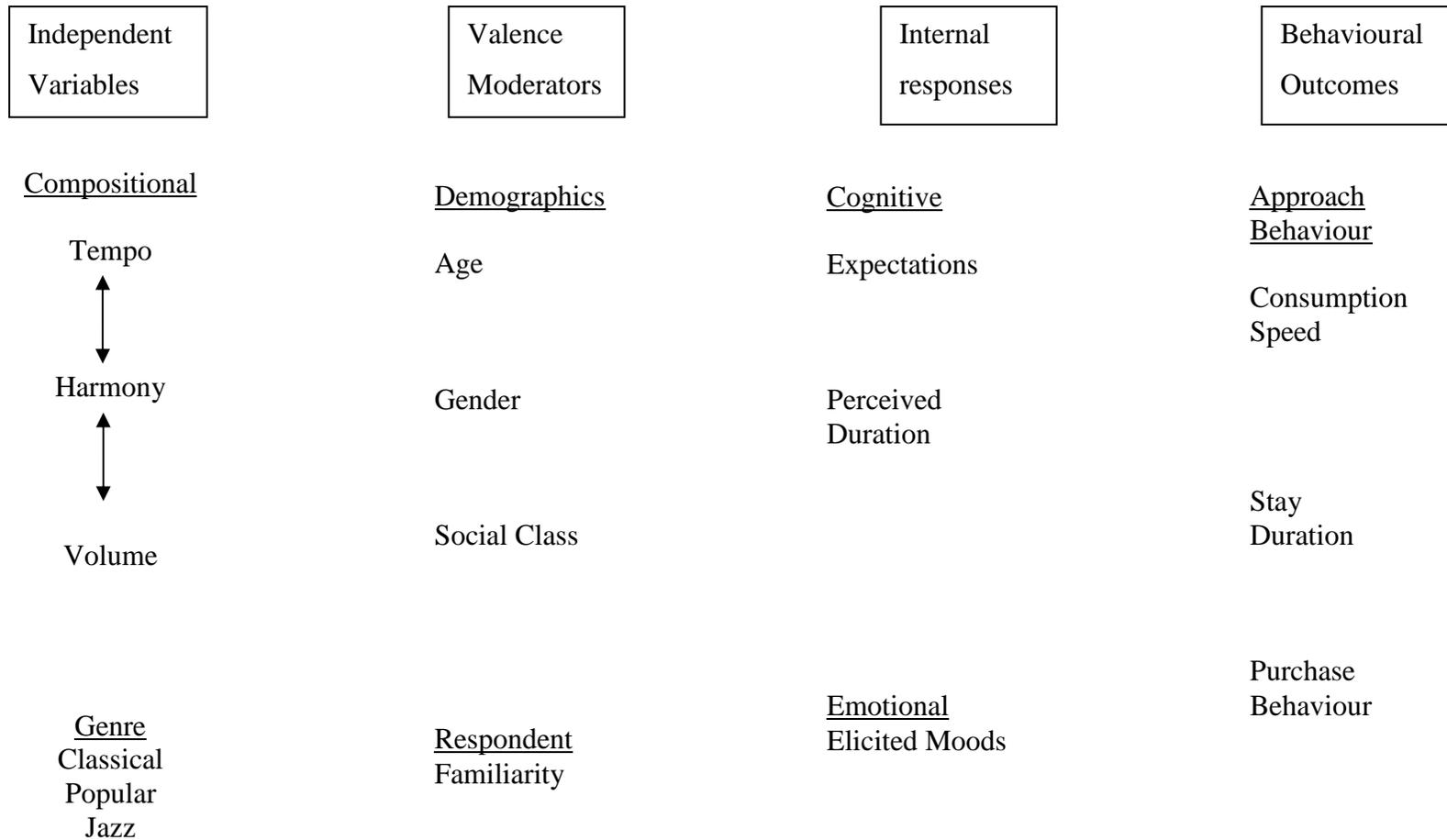


Figure 3.2 Musicscape Model
Source: Oakes (2000, p. 540)

The framework is similar to Bitner's (1992) servicescape model. Oakes (2000) model looks at just one of Bitner's (1992) ambient conditions, music and its many components that affect approach-avoidance behaviour.

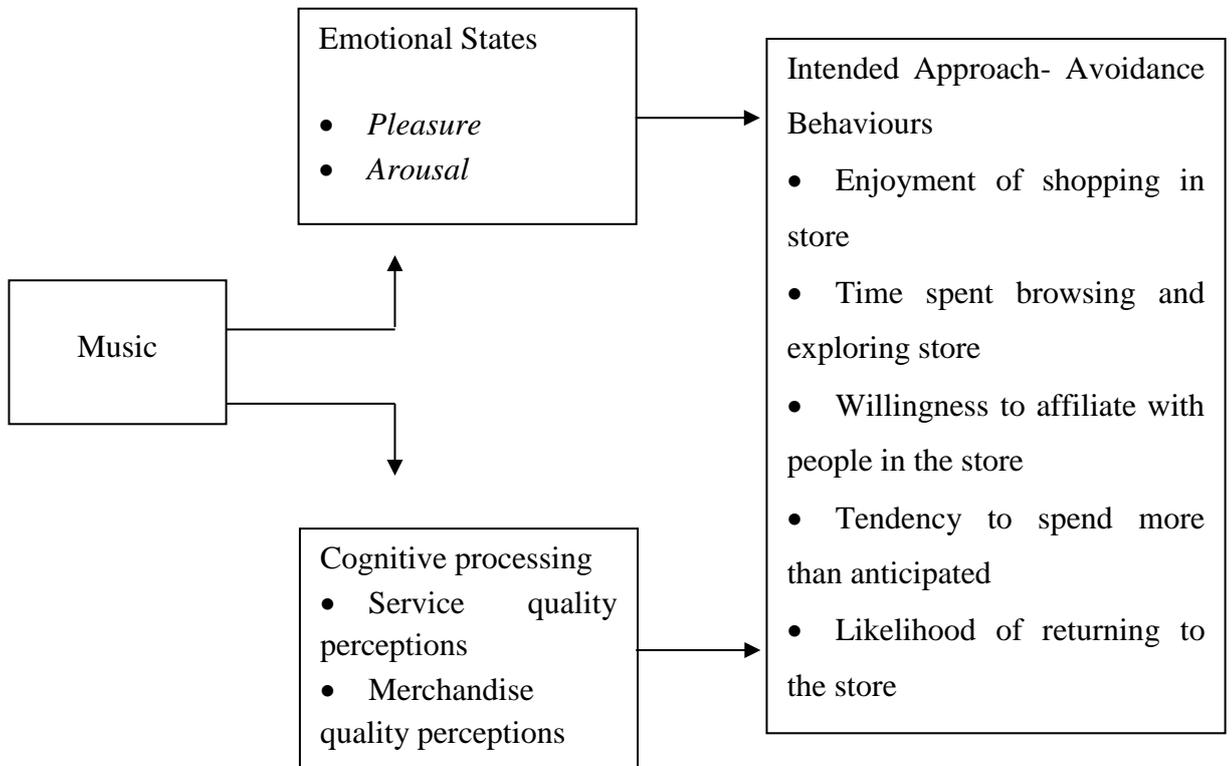


Figure 3.3 Music, Cognitive Processing, Emotional States and Approach-Avoidance Behaviours

Source: Sweeney and Wyber (2002, p. 52)

Similarly to Oakes (2000), Sweeney and Wyber (2002) developed a music model which can be viewed as a subset of Bitner's (1992) servicescape model. (See figure 3.3). It is also an extension of the Mehrabian and Russell (1974) model. Sweeney and Wyber (2002, p. 55) note that 'the model examines the manner in which music affects consumers responses or reactions and subsequently intended behaviours in a retailing context'. However Sweeney and Wyber's (2002) model does not describe in detail the many elements of music itself, which can be seen in Oakes (2000) model.

Bitner (1992) indicated that music is one of the key ambient conditions of the servicescape. Oakes (2000) model describes in detail the complex elements of music itself. The model looks at the independent variables and valence moderators that affect the internal response which in turn affects the behavioural outcomes (Oakes 2000). Similarly to Bitner's (1992) model, Oakes (2000) model provides a visual framework and identifies the elements and their relationships that other studies have concentrated on. For example Yalch and Spangenberg (2000) researched music familiarity, Herrington and Capella (1994, 1996) researched how music effects the service environment, Kellaris and Kent (1992) researched time estimations and Bruner (1990) researched music, moods and marketing. The framework also highlights elements that have not been concentrated on such as harmony or social class.

It is imperative in the retail sector that managers are aware of the music's influence and its effects on customer's approach-avoidance behaviours. It is essential due to music being a controllable variable (Shostack, 1977). Milliman (1986) concurred and noted that each of the servicescape variables are controllable but some variables, such as music, are considered more controllable than others. Music can range from 'from loud to soft, fast to slow, vocal to instrumental, heavy rock to light rock and classical to contemporary urban' (Milliman 1986, p. 286). Kellaris and Kent (1992, p. 368) noted that 'variations in musical modality can sculpt the stimulus environment and influence changes in listeners' feeling states'. Herrington and Capella (1996, p. 27) agreed and indicated that 'shoppers behaviour tends to differ according to the type of music played'.

Oakes (2000) suggested that different aspects of music such as tempo, volume, and familiarity can shape internal responses. Herrington and Capella (1996, p. 28) concurred and suggested that there is ‘some evidence to suggest that tempo, volume and other structural characteristics of background music influence behaviour’. Oakes (2000) indicated that tempo is most often researched due to its quantifiable composition. The musical factor of tempo will be looked at first followed by volume and pitch, demographics and familiarity.

3.3.1.1 Tempo

According to Bruner (1990, p. 102) ‘tempo is the speed or rate at which a rhythm progresses’. Oakes (2000) agrees and notes that music tempo is the most commonly researched area of music due to its relative ease of comparability. ‘Tempo is an important time-related variable since it controls the pace or ‘spacing’ of sounds’ (Kellaris and Kent 1991, p. 243). Through the use of a metronome, the number of beats per minute (BPM), the tempo, can be monitored or varied for the music (Oakes 2000). Within the literature slow tempo and fast tempo have been given different BPMs. In general the guideline has been set at around 72 BPM or less for slow tempo and 92 BPMs or more for fast tempo music (Milliman, 1982, 1986, Herrington and Capella, 1994, Oakes, 2000, Sweeney and Wyber, 2002).

Herrington and Capella (1996, p. 27) noted that ‘faster tempos and higher volumes add to the complexity of the environment, thus increasing the level of information to be processed.’ Information processing relates to the ‘information rate’ which the Mehrabian and Russell (1974) model uses as a means of measurement on the S

component. As noted by Donovan and Rossiter (1982) the level of complexity can affect the consumer's internal response. Increasing information generally relates to an increase in arousal which in turn may affect Approach-Avoidance behaviour (Mehrabian and Russell 1974). Kellaris and Kent (1992) agreed and noted that music has the ability to fill a time interval with stimulus information. From their study Kellaris and Kent (1991, p. 246) found that tempo had a 'positive main affect on evaluations of music's arousingness and on behavioural intent'. Morrison and Beverland (2003, p. 78) concurred and noted that 'fast paced classical and slow popular music can induce perceptions of service quality and pleasure in people, which along with merchandise quality can have a positive effect on approach behaviour'.

Chebat et al. (2001, p. 117) indicated that 'because of the ambiguous nature of soothing music, we can hardly conclude if slow tempo enhances more cognitive activity than fast tempo'. However, within the literature the effect of fast and slow tempo on customer behaviour has received mixed reactions from authors. Milliman (1982, p. 90) indicated that 'the tempo of instrumental background music can significantly influence both the pace of in-store traffic flow and the daily gross sales volume purchased by customers'. On the other hand Herrington and Capella (1996, p. 35) found that 'the tempo and volume of the background music did not significantly influence the shopping time or purchase amount of the sample of shoppers'. Herrington and Capella (1996) noted that Milliman's (1982, 1986) research may have been inconsistent as it did not take into consideration other musical characteristics such as musical preference, musical style, key, mode. In order to overcome these differences Herrington and Capella (1996) used a digital

musical sequence, which allowed them to hold, volume, key pitch and other musical characteristics constant. Overall Kellaris and Kent (1991) noted that tempo appears to be an important influence on responses to music.

3.3.1.2 Volume and Pitch

Kotler (1973, p. 51) indicated that the main 'aural dimensions of an atmosphere are volume and pitch'. Oakes (2000, p. 543) suggested that 'background musical volume is likely to be musical variable which is easiest to modify for managers operating within service environments'. Similarly to tempo, volume can easily be measured and controlled. Within their research Herrington and Capella (1996) used a decibel meter to measure the levels of loud and soft music. Oakes (2000) notes that within the literature few studies have actually used a decibel meter and this can lead to unquantifiable measure of volume.

Herrington and Capella (1996, p. 27) noted that 'slower tempos and lower volumes tend to make retail patrons shop or eat at a more leisurely pace and in certain instances spend more money than faster tempos and higher volumes'. However Harrington and Capella (1996) found that shopping time increased with customer preference towards the background music regardless of the volume. This contrasts with Smith and Curnow (1966) study on music that identified that loud music made shoppers shop for shorter periods of time, however there was no decibel measure used to quantify the measure of volume. Oakes (2000, p. 543) notes that 'it is not clear whether mere disliking of loud music is the critical factor producing longer estimates, or whether the higher decibel level itself is causing the response'.

According to Kellaris and Kent (1991, p. 243) ‘modality is an important pitch related variable since it provides the basic framework within which pitches are organised to form melodies and harmonies’. Oakes (2000) suggested within his framework that harmony is an important part of the composition along with tempo and volume. Kellaris and Kent (1992, p. 368) noted that ‘variations in musical modality can sculpt the stimulus environment and induce changes in listeners’ feeling states. Kellaris and Kent (1991, p. 243) suggested that ‘in general major keys tend to be associated with positive thoughts and feelings and minor keys with negative thoughts and feelings’. There are also atonal modalities; these are neither major nor minor keys and each has its own aesthetic character (Kellaris and Kent, 1991).

3.3.1.3 Music Demographics

Oakes (2000, p. 540) indicates that although demographic factors have not been a main focus in past studies, ‘their presence within the Musicscape framework acknowledges their mediating influence’. Oakes (2000) particularly looked at age, gender and social class as influencing variables. Yalch and Spangenberg (1993, p. 632) noted that musical preference varies according to age, they suggested that ‘teenagers usually listen to rock music’ and ‘older professional adults may prefer classical music’. Mehrabian and Russell (1984) indicated that in general males and females respond differently to similar environmental stimuli. In their research, Andersson et al. (2012) found that females reacted differently in a no-music condition compared with males. They found that the degree of approach behaviour was moderated by gender.

Through the use of environmental dimensions such as music stores can attract or drive away unwanted customers. Bitner (1992) noted the use of elevator music in a 7/11 store to drive away the youthful market segment that had been detracting from the stores image and atmosphere. Herrington and Capella (1994, pp. 51-52) remarked on the limited apparel stores use of music and suggested that they used 'popular contemporary background music in an effort to attract a certain segment of the apparel-buying market (e.g. young, fashion conscious women)'. Yalch and Spangenberg (1993, p. 632) note that 'managers expect store music to be more effective when tailored to the listening preferences of the demographic segment'. Herrington and Capella (1994, pp. 57-58) indicated that to 'determine the most appropriate background music, a retailer must carefully define the selected target market and the specifics of this market including age, income, education, gender...and familiarity with the music'.

3.3.1.4 Music Familiarity

Familiar and unfamiliar music tends to particularly impact customers perceived time spent within a service setting. Yalch and Spangenberg (2000, p. 141) found that 'familiar music, relative to unfamiliar music, may cause individuals to spend less time shopping but perceive themselves as spending more time'. Bailey and Areni (2006, p. 195) also found that 'familiar music reduced duration compared to unfamiliar music'. The longer perceived spending time when listening to familiar music may exist due to more information being stored when listening to music that is familiar (Kellaris and Kent 1992). Yalch and Spangenberg (2000, p. 142) suggest

that 'it is expected that individuals listening to familiar music will be more aroused and spend less time shopping than individuals listening to unfamiliar music.'

However, from their findings Sweeny and Wyber (2002) contradicted previous research and suggested that familiarity of the music did not add any clarification in explaining consumers' emotional states and cognitive process. Familiar music can sometimes be disliked by consumers and unfamiliar music liked. Sweeney and Wyber (2002, p. 62) findings suggested that 'consumers' liking to music played a major role in explaining consumers' emotional states and cognitive processes'. Kellaris and Kent (1992, p. 368) indicated that 'there may be a tendency to devote more attention to liked music or to retain more information'. Sweeney and Wyber (2002, p. 64) indicated that 'musical liking is far more important than considering what they [consumers] are familiar with'.

From previous research there is evidence to suggest that music is an important factor in a service environment and that its impact on the consumer can affect their approach-avoidance behaviour. However Herrington and Capella (1996, p. 26) noted that 'knowledge of musical effects remains somewhat limited'. There has been conflicting research, particularly in the areas of tempo and volume. Morin et al. (2007, p. 116) noted that 'despite evidence that music influences various service components, which combine to shape service outcomes, as well as these outcomes proper, the mechanisms by which music operates remain under researched' and called for further research.

Music and its varying components whether they are viewed in isolation or together play an important role on the service atmosphere, perceived length spent in the service and on the customer's internal response. Also it is inevitable that consumer response to music within a service environment may be influenced by the other elements, e.g. colour, décor, lighting and layout (Oakes 2000). There is a need for all atmospheric variables to be researched together (Milliman, 1982). Babin et al. (2003) emphasised the need for further research when they indicated that the possibility exists that colour may interact with other ambient characteristics, such as music and may alter consumer reactions to a store. Colour is the next element that will be investigated.

3.3.2 Colour

‘Colour is a key element in the environment for the human and other species and, from an evolutionary perspective, the ability to discriminate colours and tendencies to approach some and avoid others can be essential for survival.’

Crozier (1999, p. 6)

Colour has been suggested as one of the most obvious visual cues in a servicescape (Lin, 2004). Crowley (1993) pointed out that though it is a pervasive part of everyday life that its existence tends to be taken for granted. It plays a vital part in the service environment that should not be ignored. Kotler (1973) noted that atmospherics should create a positive feeling and help soothe the customer. Retailers have traditionally used colour to portray an image or create a desired positive atmosphere (Bellizzi et al., 1983). Madden et al. (2000, p. 92) indicated that ‘colour

influences both human behaviour and human physiology'. Nitse et al. (2004, p. 900) further suggested that 'colour is actually a sensation just like touch'. The colour of a firm's physical environment often makes the first impression; it can be seen on their brochures, business cards, online, the exterior and the interior of the facility (Crowley, 1993; Gorn et al., 2004).

For retailers there has been little research on the impact of colours and a considerable amount has been borrowed from interior design and other literature. Funk and Ndubisi (2006, p. 42) noted that 'the colour literature is vast and highly fragmented'. However similar to music, marketers are conscious of the impact that colour can have on customer's moods. Both customers and retailers are generally aware that some colours are considered warm and uplifting and other colours are cooling and refreshing. Grossman and Wisenblit (1999, p. 80) noted that 'marketing practitioners have used the association of arousal for warm and calming for cool colours in retail settings.' One example is the use of the colour red in casinos to stimulate gambling (Grossman and Wisenblit, 1999). The choice of colours within a service setting is essential in establishing a suitable atmosphere for that particular service. As Funk and Ndubisi (2006, p. 41) noted 'colour can stimulate interest and subsequently increase the buying power'.

It is commonly accepted that colours can possess emotional and psychological properties (Madden et al., 2000). In service environments colour can be used to attract or draw the customer in and gain attention. Aslam (2006, p. 15) agreed and suggested that colour 'induces moods and emotions, influences consumers' perceptions and behaviours'. Danger (1968) noted the effects that bright and dark

colours can have on temperature control. Whilst Bellizzi et al. (1983) pointed out the effects that colour can have on moods, warm colours such as red, yellow or orange were more exciting and cool colours such as blue and green were more relaxing. The colour blue for example is perceived as a cooling colour and is often used in bathrooms to create a relaxing pleasant environment. It is important to note that what draws or attracts a customer into a service environment may differ to what attracts them to stay within the service environment. Generally customers are more drawn in by warm colours however red retail environments were found to be unpleasant, negative, tense, and less attractive than cool colour environments (Bellizzi and Hite, 1992).

Bellizzi et al. (1983, p. 22) noted two concepts in retail store design; 'the concept of approach orientation and physical attraction' Bellizzi et al. (1983, p. 22) indicated that 'approach orientation of colour is defined as the power of stimulus colour to encourage attention during and after exposure to this stimulus'. Research has shown that some colours evoke an approach tendency whilst other colours encourage avoidance behaviours (Babin et al., 2003). Physical attraction is described as the attention getting power (Bellizzi et al., 1983). McDonalds is a prime example of a service environment that uses physically stimulating vibrant red and yellow colours on their exterior to attract customers into the environment.

Danger (1968) suggested that warm colours such as red, yellow or orange are impulsive, emotionally arousing colours and should be used for attracting attention. Interestingly McDonalds also use the same overloaded colour scheme in their internal environment. Bellizzi et al. (1983) indicated that warm colours can be

irritating and that retailers must be careful not to bombard the customer with over loaded stimulated colours as this can cause avoidance behaviour among them.

However, McDonalds is a fast food restaurant that does not want their customers to stay for a long time in the service environment. Their choice of bright yellow and red interiors is excellent, as it discourages customers to stay in the environment. Within an upmarket restaurant setting these vibrant colours could have a negative impact on the customer's decision to stay within the environment. Bellizzi et al. (1983, p. 32) indicate how the impact of colour can affect the behaviour 'too much excitement and attraction can lead to shopper avoidance of uncomfortable environments'. The connection between the ambient condition of colour and approach-avoidance behaviour is clearly indicated in Bitner's (1992) model.

Crozier (1999) noted that when colours are talked about they are generally discussed in terms of reds, blues, greens and other colours. However these terms only refer to one of the three basic properties of appearance and that is hue. Bateson and Hoffman (1999, p. 143) identified 'the psychological impact on colour on individuals is the result of three properties, hue, value and intensity'. Much can depend on the strength of the hue. Hue refers to the family that a colour belongs too, such as red, blue, and yellow and corresponds to the wavelength of light (Crozier, 1999). Crozier (1999, p. 7) noted that 'blue and green are at the low wavelength end of the spectrum and red and orange at the high end'. Janssen et al. (2004) concurred and further indicated that hue is the pigment of the colour. The strength of a hue can determine its affects or its associations with emotional feeling. For example, blue can be associated with emotions ranging from sedate tranquillity to suppression of feelings (Bellizzi et al.,

1983). Cool, short wavelength colours are generally preferred to warm, long wavelength colours (Babin et al., 2003).

Value defines the lightness or the darkness of the colour, these are generally known as the tints (lighter values) or shades (darker values) of the colour (Bateson and Hoffman, 1999). Crozier (1999, p. 7) noted that value is also a 'function of the energy of the light source and corresponds to the amplitude or height of the wave. Intensity, saturation or chroma all refer to the apparent clarity or purity of the colour (Crozier, 1999; Bateson and Hoffman, 1999). Funk and Ndubisi (2006, p. 44) suggested that 'chroma is not independent of value as marked changes in amplitude will affect the purity of the hue, and the three accounts for colour and attractiveness'. Janssen et al. (2004) indicated that chroma is also the proportion of pigment within the colour. Crozier (1999, p. 7) point out that chroma 'is associated with the complexity of the light wave, in that a light wave that is composed of only a few different wavelengths will appear most saturated and least diluted'.

Colours can generally be classed into two categories, or two hues that represent warm colours and cool colours (Hyodo, 2011). Crozier (1999, p. 6) noted that 'a substantial body of research suggests that the rank order of preference for hues - blue, red, green, violet, orange, yellow - emerges with some degree of consistency'. These colours are the colours that can be viewed as wavelengths of visible light and can be ordered from long to short wavelengths as follows red, orange, yellow, green, blue and violet (Crowley, 1993). Research indicates that there is no one preference for cool or warm colours. However Crozier (1999) noted that blue in particular is regularly preferred to other hues. Mehrabian and Russell (1974) also found that

maximal pleasure associated with colours was found in the blue and green regions of the visible spectrum. Bellizzi et al. (1983, p. 26) remarked that ‘preference for blue is thought to indicate well controlled emotions and behaviour’. Bellizzi and Hite (1992) observed that blue produced more positive outcomes than red. The meanings that are associated with blue and the other visible colours of the spectrum can be seen in table 3.1.

Crowley (1993) noted that ‘different effects and associations engendered by various colours of stimuli have been found consistently in psychological research’. Lewison (1991) identified six colours and classed the perceptions of the colours within the two hues of warm and cool colours. These six colours coincide with Crozier’s (1999) six identified preferred colours. Bellizzi et al. (1983, p. 25) indicated that ‘blue is the coldest of the cool colours, and is near the opposite end of the spectrum from red, the hottest colour’. ‘This visible spectrum is but a small part of the total spectrum of wavelengths’ (Crowley 1993, p. 60).

Lin (2004, p. 168) indicated that ‘research has shown that different colours stimulate varying personal moods and emotions’. Danger (1968) It would appear that colour associations are tied in with psychological effects and that colours have numerous associations (Danger 1968, Crozier 1999). Crowley (1993, p. 60) concurred and observed ‘that certain colours, especially red, are more physiologically and psychologically activating than other colours’. As can be seen in Table 3.1, colours can be perceived as having many different meanings, feelings or emotions and clearly can have some impact on mood.

Bateson and Hoffman (1999) noted that despite their psychological effects different combinations of these warm and cool colours can create many varied, relaxing yet stimulating atmospheres. Retail shops could enhance approach behaviour through using bright warm colours such as red, orange or yellow on the exterior. Warm colours could attract the customers in, once in the shop the interior design of the shop could have more calming cool colours, thus maintaining the approach behaviour through having a pleasant yet arousing atmosphere. Donovan and Rossiter (1982, p. 56) concur with Bateson and Hoffman (1999) and further indicated the affects on behaviour in that 'the correct emotional combination of pleasantness and arousal created by store atmosphere can stimulate shopping behaviour within the store'.

| Warm Colours | | | Cool Colours | | |
|--------------|--------------|--------------|--------------|-------------|----------|
| RED | YELLOW | ORANGE | BLUE | GREEN | VIOLET |
| Love | Friendliness | Sunlight | Coolness | Coolness | Coolness |
| Romance | Warmth | Warmth | Aloofness | Restfulness | Shyness |
| Courage | Brightness | Openness | Calmness | Peace | Dignity |
| Danger | Openness | Friendliness | Masculinity | Freshness | Wealth |
| Cheerfulness | Happiness | Happiness | Assurance | Growth | |
| Excitement | Sunlight | Glory | Sadness | Softness | |
| Warmth | | | Fidelity | Richness | |
| Enthusiasm | | | | Go | |
| Stop | | | | | |

Table 3.1 Perceptions of Colours

Source: Lewison (1991, p. 277)

Bellizzi and Hite (1992) investigated the role of colour to induce moods or feelings that may subsequently induce behaviour or behavioural intentions. Their research followed on from Bellizzi et al. (1983) study, which identified an evaluation link and concluded that customers view red as more negative and unpleasant than blue but equally arousing, (Bellizzi and Hite, 1992). Bellizzi and Hite (1992) found that customers act more favourably in a blue environment in retail settings. Verhoeven et al. (2006) concurred and noted that within the healthcare setting; blue environments alleviated anxiety, improved emotions and give an improved perceived service quality. Bellizzi and Hite (1992) also found that warm coloured backgrounds seem to be more attention grabbing and attract people to approach the store. Bellizzi et al. (1983, p. 39) noted that subjects may be 'physically drawn to warm colours but feel warm colour environments are generally unpleasant'. Bellizzi et al. (1983) found that subjects rated cool coloured store environments as more pleasing and attractive than warm coloured store environments.

From their research Bellizzi and Hite (1992, p. 357) noted that 'subjects in the blue environment expressed a greater intention to shop, browse and buy'. However Bellizzi and Hite (1992) note that their findings were based on an experimental study and that caution must be taken in generalising the research. Bellizzi and Hite (1992) determined that colours influence people's emotional pleasure stronger than arousal and found that customers reacted more favourably to 'cool' store interiors. Their findings also suggest that store colour is important in understanding customer behaviour (Babin et al., 2003).

It is also worthwhile to note that the meanings associated with colours can vary from one culture to the next. Grossman and Wisenblit (1999, p. 83) noted that ‘cultures may adapt similar or different meaning to colours’. The way people learn to associate meaning with different colours needs to be considered, for example the ‘funeral colour in the west is black, and in the east is white’ (Kotler, 1973, p. 52). Within the western societies black is perceived as a morbid colour and could evoke feelings of unhappiness and unpleasantness. Meanwhile in Indian culture black is associated with dullness and stupidity (Grossman and Wisenblit, 1999). Funk and Ndubisi (2006, p. 42) illustrated that ‘white has been associated with peace and purity and red the colour of blood representing strength, health and passion’. Grossman and Wisenblit (1999) noted that in the west red is associated with love but in china it suggests ambition and desire. Aslam (2006) suggest that a dynamic culture-sensitive approach in colour research and its strategic use will help predict purchasing behaviour.

‘Overall, while it is seen that colors do have an effect on mood, this effect varies by context and subject’ (Hyodo, 2011, p.864). Crowley (1993, p. 59) observed that ‘the psychological effects of colour have received some attention in the consumer behaviour literature’ however ‘knowledge of these affects is limited at best’. From the studies described above the colour blue has consistently shown strong evaluative appeal. On the other hand the colour red consistently emerges as the most activating yet is one of the least preferred colours in an evaluative sense. Crowley (1993, p. 67) noted that ‘the evaluative responses to a colour can be quite different from the activation effects of colour’. These emerging colour patterns suggest that further research would be beneficial in understanding the affects of colours on approach-

avoidance behaviour. The next element to be looked at is lighting. Lighting and colour have often been researched together (Spies et al., 1996, Babin et al., 2003).

3.3.3 Lighting

Areni and Kim (1994) indicate that only a small subset of Kotler's (1974) in-store variables have been studied empirically. As previously noted, music and colour to date have been the most researched variables. Though there has not been much research conducted on lighting, it has been considered an important component of store atmosphere since Kotler's (1973) study (Mehrabian and Russell 1974, Spies et al. 1996). Steffy (1990) and Ching (1996) indicated that lighting influences the perceptions of space, volume, form, texture and colours. People's awareness of lighting can influence their perceptions about the stores environment (Lin, 2004). Summers and Hebert (2001, p. 145) indicated that 'a more appealing store with better-illuminated merchandise may entice shoppers to visit the store, linger, and hopefully make a purchase'. Hasty and Reardon (1997, p. 281) agree and recommend that 'lighting should match the mood the retailer is attempting to create with the rest of the store décor'.

In past research lighting has been associated with colour and both elements have been researched together. Babin et al. (2003, p. 542) focussed on colour and lighting interaction and suggested that 'certain combinations of lighting and colour fit better (are assimilated more easily) into specific categories'. As with the other stimuli discussed the fit or congruency of lighting with the environment is important. Nitse et al. (2004) indicated that lighting can affect the colour of an object or the

merchandise. Similarly to colour, retailers use information from interior design and architecture literature to understand the benefits or effects that different lighting can have. Unlike music and colour there is no existing model for the effects of lighting on behavioural intentions.

Retailers use many different types of artificial lighting to create their desired atmospheres. Natural sunlight is also used to create desired atmospheres. Gifford (1988, p. 178) noted that 'human activity levels should generally increase in day time or in bright lights; as light dims, activity should slow down.' However the creation of artificial lighting has allowed more activity to occur at nightfall (Gifford, 1988). Retail stores can use fluorescent lights, halogen/quartz bulbs, and incandescent lights to create an atmosphere. Diamond and Pintel (1996, p. 299) recognise that 'incandescent lights has been the mainstay for visual lighting for many years'. Hasty and Reardon (1997) note that fluorescent lighting frequently build up blues and purples and can help bring out colours. Gifford (1988) noted that lower light levels are associated with an increase in intimacy. Each of the different lights can create or deliver a different look or feel to the merchandise. When applied with other ambient factors such as, music or colour, lighting can have significant implications for a stores atmosphere.

Steffy (1990) indicated that environments in which lighting complements other environmental stimuli are perceived as more pleasant. Baker (1994) notes a store described as having a combination of bright, fluorescent lights (soft incandescent lights) and popular (classical) background music causes consumer reactions with a discount (prestige) image. Yalch and Spangenberg (2000, p. 140) concurred and

indicated that 'a manager might choose classical music, subdued colors, elegant perfumes, cool temperatures, sparsely displayed merchandise and low lighting to project an upscale image'. 'Lighting can help achieve the overall image' that the store is trying to project (Hasty and Reardon, 1997, p. 281).

Depending on the service environment it is important to note the arousing effects of lighting. Mehrabian (1976, p. 89) indicated that lighting is an extremely important variable of the environment because 'brightly lit rooms are more arousing than dimly lit rooms'. In a high class restaurant, dim lighting is appropriate in creating an intimate environment (Gifford, 1988). In stores such as McDonalds or Burger King bright lighting is appropriate in creating an atmosphere coherent with the fast paced lifestyle it portrays. Hasty and Reardon (1997, p. 281) concurred with Mehrabian (1976) and emphasised that lighting 'is an integral part of the store's interior and exterior design'. Lighting can be used to highlight merchandise or sculpt an environmental space in order to capture an atmosphere suitable for the store (Levi and Weitz, 2004). Levi and Weitz (2004, p. 611) suggest that 'having the appropriate lighting has been shown to positively influence customer shopping behaviour'. However too little or too much lighting or even the wrong type of lighting can create false impressions about the merchandise and create an opposite image to the desired (Hasty and Reardon, 1997).

Areni and Kim (1994, p. 118) noted illumination of store design has received little attention and 'that its effects on consumers has yet to be examined empirically'. Summers and Hebert (2001) concur and noted that though the importance and benefits of lighting are generally acclaimed for retail environments, very few

empirical retail lighting studies have been conducted. Of the few research studies that that have been conducted there are inconsistencies. Summers and Herbert (2001, p. 149) findings suggest that ‘light levels do contribute to consumer approach behaviour’. Their findings also suggest that changing in store lighting may achieve an increase in general consumer involvement. However Cuttle and Brandston (1994) findings are conflicting. They looked at two stores within their research. One stores lighting clearly influenced customers but for the other store there was no consistent trend to be found in the lightings affects. Variation within the research clearly demonstrates the need for further research in lighting and its effects (Areni and Kim, 1994, Summers and Hebert, 2001).

3.3.4 Olfaction

The sense of smell is active all the time; we breathe, therefore, we must smell.

(Toller et al., 1985, p. 5)

Ambient scent is odour or olfaction that is not just emanating from any particular object but is to found present in the service environment (Spangenberg et al., 1996). Freedman (1993) noted that of all the senses, olfaction provides the most direct link to the environment. Marketers are aware of this link and use olfaction in consumer settings such as retail stores or shopping centres as a stimulus in the external environment (Donovan and Rossiter, 1984). It is important to note the many different titles given to odour, olfaction, smell, scent, ambient scent or odour. One reason behind the many differences lies in its place of origin. For example in the USA/Canada it most commonly referred to as odor, olfaction or ambient scent

(Henion, 1971; Knasko et al., 1990; Chebat and Michon, 2003; Spangenberg et al. 2006). In Europe it is often referred to as odour or scent (Aggleton and Waskett, 1999; Bosmans, 2006). For consistency it will be referred to as olfaction, unless specific papers are being cited.

Mitchell et al. (1995, p. 229) noted that the ‘beliefs in the power of ambient odor to affect consumers thoughts and ultimately their behaviour have relied largely on intuition rather than empirical findings’. To date there has been a significant body of research on the effects of olfaction on human physiology and psychology (Bone and Ellen, 1999, Turley and Milliman, 2000). In contrast Orth and Bourrain (2005) noted that there has been limited research on the effects of olfaction on consumer behaviour. Compared with the other sense of vision and hearing, the sense of smell is an under researched topic (Morrin and Ratneshwar 2000). Even Mehrabian and Russell (1974) did not pay much attention to olfaction. Due to its lack of research olfaction has surrounded itself with an air of mystery. Davies et al (2003, p. 613) indicated that the ‘notion of smell as ‘mysterious’ is perhaps in part generated as the result of our limited knowledge concerning the complexity of smell reception and processing’.

To date much research on olfaction has been in environments such as hospitals, housing projects and various types of institutions (Morrin and Ratneshwar, 2000). Though there has been limited research, Morrin and Ratneshwar (2000, p. 157) point out that ‘the use of ambient scent, or atmospheric odor, as a means to affect human behaviour appears to be on the rise’. As Chebat and Michon (2003, p. 537) reveal ‘it

is probably among one of the least expensive techniques to enhance shoppers perceptions’.

Gulas and Bloch (2005) noted that ‘scent’ is relevant to consumption in two ways, firstly ‘scent’ is part of the overall ambient environment and secondly ‘scent’ is directly associated with the appraisal of the object (Bone and Jantrania, 1992). Scents have the potential to create moods, influence feeling states, evoke associations from memory and affect product judgment (Ehrlichman and Halpern, 1988, Bone and Jantrania, 1992, Morrin and Ratneshwar, 2000, Spangenberg et al., 2006). Bosmans (2006, p. 31) illustrated that ‘retailers have been using scents in the marketplace for a long time to influence consumers’ buying behaviour and satisfaction.’ To date, marketing efforts in the area of olfaction have focused largely on its impact on approach avoidance behaviour (Morrin and Ratneshwar 2000). Orth and Borrain (2005, p. 140) indicated that ‘many researchers suggest odour pleasantness affects moods and mild affective states’. Spangenberg et al. (1996) found that ‘pleasant scents’ improved consumer’s ratings of the store environment, the store merchandise and increased consumer’s intention to return. However the psychological mechanisms underlying the experiential effects of olfaction on approach-avoidance behaviour are not entirely understood (Morrin and Ratneshwar, 2000). As Bone and Jantrania (1992, p. 290) suggest it is over simplifying to state that ‘if it smells good-they (consumers) will come’.

3.3.4.1 Olfaction Models

Similarly to music, olfaction has a model that is based on Mehrabian and Russell (1984) S-O-R model and Bitner's (1992) servicescape model. Gulus and Bloch (1995) indicated that their model, (figure 3.4), is congruent with these larger scale models and that it incorporates variables that appear most promising in explaining the role of 'ambient scent' in influencing consumer behaviour. Davies et al. (2003, p. 614) concur and indicate that 'the model attempts to identify the chief factors related to individual consumers and their approach-avoidance behaviour'. Davies et al. (2003) went on to elaborate the Gulus and Bloch (1995) model. They indicated that the Gulus and Bloch (1995) model represents a significant move in developing specific considerations of 'ambient scent' perception. Due to the complexity of the Davies et al. (2003) model, Gulus and Bloch (1995) model is depicted here as their model forms the main basis of Davies et al. (2005) extended model. The main factors identified in the Gulus and Bloch (1995) model are perceived ambient scent, scent preferences and affective responses.

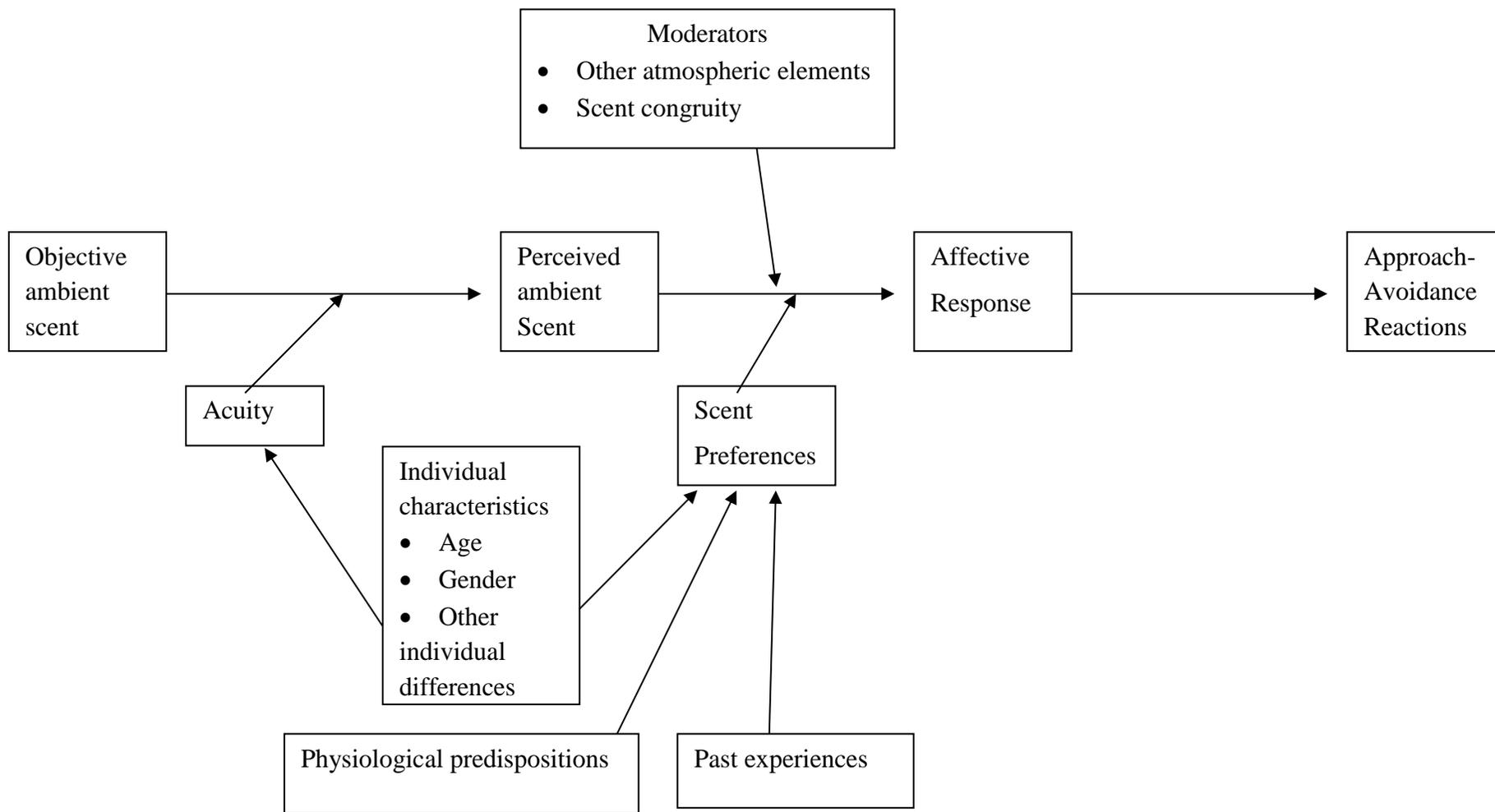


Figure 3.4 The Influences of Ambient Scent on Consumer Responses
 Source: Gulus and Bloch (1995, p. 90)

The ambient scent must be apparent in the service environment in order to influence consumer behaviour (Gulus and Bloch 1995). Gulus and Bloch (1995) note that there is much difference in the perception or acuity of olfaction and that much of this variation appears to be logical. For example individual characteristics such as age, gender, illness and smoking can affect perceived levels of olfaction (Toller et al., 1985, Hirsch, 1992, Aggelton and Waskett, 1999). Davies et al. (2003) in their extended model suggested that 'perceived ambient scent' has both conscious and unconscious elements. 'This reflects the possibility of a smell being perceived in a pre-attentive manner' (Davies et al. 2003, p. 621). This may lead to situations where consumers respond to olfaction without realising (Davies et al., 2003).

The second factor being considered is scent preferences. Obviously there are notable differences in scent preferences among consumers however some generalisations can be made. Some smells are particularly considered to be unpleasant; the smell of gas, sour milk and decaying vegetation. These smells influence behaviour in obvious ways (Lawless 1991). The nastier and the more unpleasant the smell the quicker people's reactions to it (Davies et al. 2003). In these instances scent preferences serve as a defensive or warning purpose protecting us from illness or danger (Gulus and Bloch, 1995).

Hirsch (1992) noted also that gender and age may influence scent preferences. He found that food smells would be more efficient in targeting younger consumers than natural smells, such as pine, hay, grass and that the opposite held true when targeting an older consumer group (Hirsch, 1992). Gulus and Bloch (1995, p. 91) suggested that 'shared past experiences may help explain age and gender differences in scent

preferences'. From their model in figure 3.4 Gulus and Bloch (1995) identify that when scent preferences are combined with perceptions of ambient scent that it can influence consumer's affective responses.

Bone and Ellen (1999) developed a similar framework that identifies variables that effect consumer's affective responses. Their framework identifies three primary dimensions that are considered important. The dimensions are its presence (or absence), its pleasantness and its fit or congruity. The model is called 'conventional wisdom view of olfactory effects' and portrays these dimensions and their effects on consumer behaviour. Figure 3.5 depicts their model. Both models suggest frameworks that illustrate the affects that olfaction has on affective responses. Before looking at Gulus and Bloch (1995) third variable of consumer's affective response, Bone and Ellen's (1999) three dimensions will be looked at.

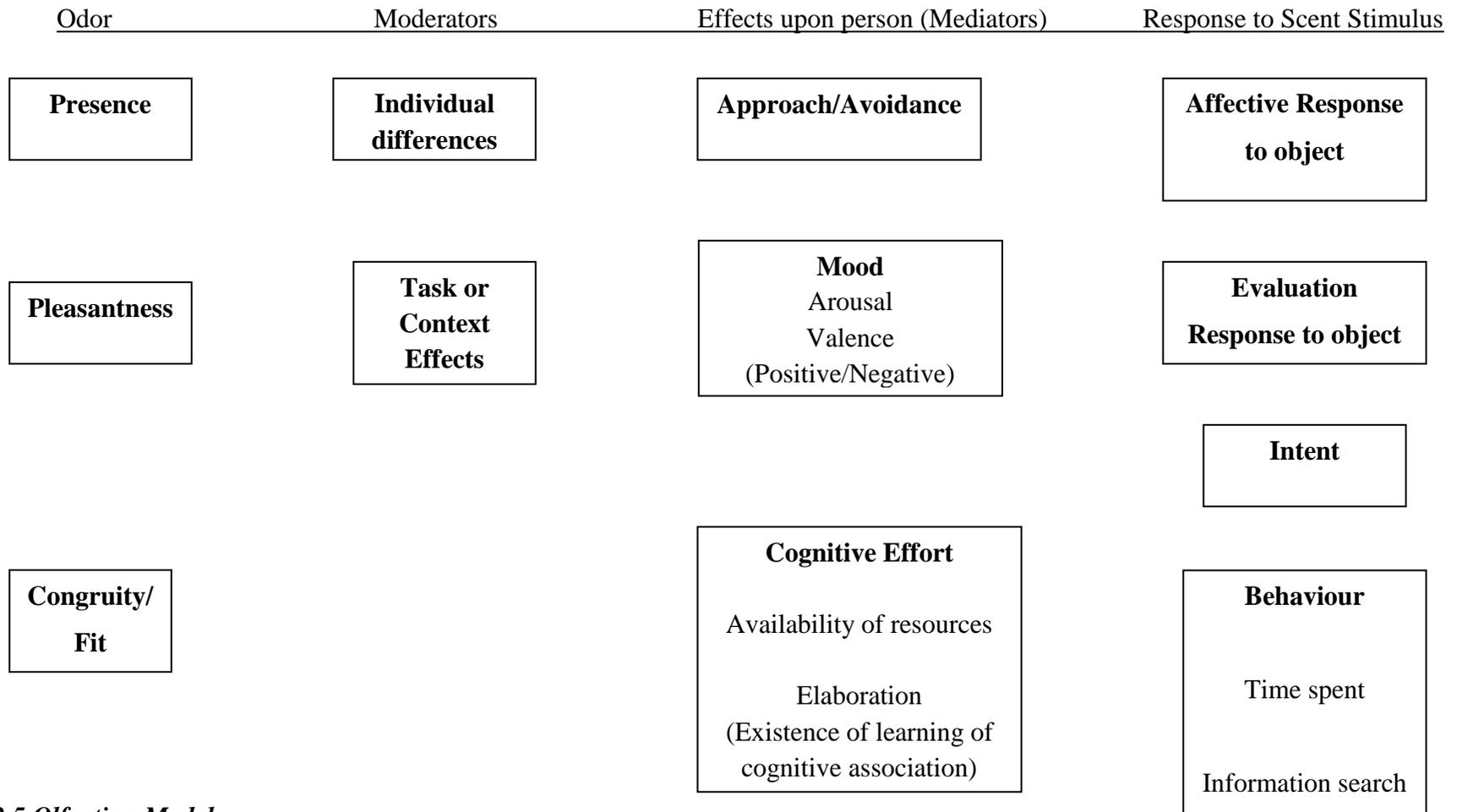


Figure 3.5 Olfaction Model
Source: Bone and Ellen (1999, p. 245)

Presence is the first of the three dimensions. Davies et al. (2003) note that 'scents' are an environmental cue that can be difficult to identify and customers can be unaware of a scents influence or presence. However the presence of a smell can trigger behaviour (Hirsch, 1992). The more intense 'the scent' is the more noticeable it is to the consumer. Spangenberg et al. (1996, p. 69) 'suggest that the relationship between scent intensity and affective reactions depend on how pleasing the scent is'. Bone and Ellen (1992, p. 249) identified that 'there are two primary but related characteristics of odors: quality and intensity'. Quality refers to its perceived pleasantness or unpleasantness and intensity refers to the concentration of 'the scent' (Mattila and Wirtz, 2001). Spangenberg et al. (1996, p. 69) identified a third dimension called 'its arousing nature (e.g. how likely it is to evoke physiological response)'. This first dimension of quality coincides with Bone and Ellen's (1999) variable of pleasantness. Bone and Ellen (1999, p. 249) suggest that 'the more pleasant (unpleasant) the scent the stronger and more positive (negative) the effects of moods and evaluations.

Bone and Jantrania (1992, p. 290) indicated that 'humans perceive scents to have only one primary dimension-that of pleasantness'. Orth and Bourrain (2005, p. 140) defined scent pleasantness 'as a scent's individually and positively evaluated stimulation of the olfactory senses'. Knasko (1995, p. 479) found that 'pleasant odors may have some general effects due their hedonic value'. Bone and Jantrina (1992, p. 290) also argue that 'odor effects are hedonic because the area of the brain that interprets olfactory stimuli (the hypothalamus) is also the emotion centre of the brain'. Ehrlichman and Halpern (1988, p. 770) noted that 'virtually no mental effort is involved in experiencing odor...odors are simply there'. Hirsch (1992, p. 391)

concurrent and identified that 'the most powerful impact upon emotions is through the sense of smell.' This makes 'ambient odor' an important atmospheric variable to study because 'odors' have an increased likelihood of producing emotional reaction from consumers (Michon et al., 2005).

Mehrabian and Russell (1984) suggest that ambient factors, like olfaction, affect the PAD dimensions, the classification of the emotionally responses, which in turn affect approach-avoidance behaviour. However Lawless (1991, p. 366) indicated that the complexity of the multiplicity of connections and interactions within the limbic system (the part of the brain at the centre of emotions) 'do not lead themselves to simple theories connecting the relationship of smell to specific emotions'.

Aggleton and Waskett (1999) noted that olfaction has been linked to the ability to recall strong emotions and both pleasurable and un-pleasurable memories. Morrin and Ratneshwar (2000, p. 162) found that 'pleasant scents improved memory, at least in part, through an encoding effect. Encoding refers to the initial acquisition of information and involves the amount and depth of processing'. As previously noted Mehrabian and Russell (1984) introduced the notion of 'information load' to measure environmental stimulation (See chapter two). Donovan and Rossiter (1984) noted that high or low load environments can affect the emotional states of the consumer. However Davies et al. (2003, p. 617) note that 'as a stimulus, smell is more difficult to examine, as responses to the stimulus can be pre-programmed and therefore do not need attention (or even much processing) to generate response'.

Bone and Ellen (1999, p. 253) specified that ‘olfaction information can be quite ambiguous, compared to other cues’. Knasko et al. (1990, p. 1355) concurred and indicated that it is not ‘safe to assume that odor exposure by itself is the sole factor at play in studies of response to olfactory stimuli.’ Cognition bias may play a role in the response to ambient odour. For example, the ability to recognise a lemon scent is greater if presented in yellow rather than red form (Bone and Ellen, 1999). Mitchell et al. (1995) found that when the ‘ambient odor’ was congruent with the product class subjects spent more time processing information. Bone and Ellen (1999, p. 253) usefully point out that ‘the observed affect of scent pleasantness on mood valence, is clearly a case of accessible information being valenced, and in turn, affecting consumer’s mood’.

Hirsch (1992, p. 391) noted that ‘judgement as to the pleasantness or the unpleasantness of various odours depends too upon who we are and where we live’. Similarly Gulus and Bloch (1995) note that age, gender and nationality can influence our judgement on the pleasantness of an odour. Davies et al. (2003) indicated that gauging what is pleasant and unpleasant, beyond the basic warning smells, is not easy and that it is not consistent across cultures.

The third of Bone and Ellen’s (1999) dimensions is fit or congruity. Similarly to music and colour, olfaction must fit in with its environment. Mattila and Wirtz (2001, p. 285) indicated that ‘environmental stimuli should not be considered in isolation, since it is the total configuration of cues that influence consumer response’. Bone and Jantrania (1992, p. 290) indicate that ‘the appropriateness of the scent must be considered’. ‘Some odors, although generally perceived as pleasant, may be

viewed as inappropriate in a particular context' (Bone and Ellen, 1999, p. 251). The proposal that the suitability of the scent may determine its influence on evaluating the service environment suggests that 'odors' affects are partially dependent on cognition (Bone and Jantrania, 1992). Consumers may learn an association between the smell and the object or even a place. For example the smell of pine suggests cleanliness and the smell of disinfectant is a reminder of hospitals.

Bone and Jantrania (1992) research focussed solely on product scents and it is important to note the difference between product scent and ambient scent. As Gulas and Bloch (1995 p, 89) most adequately point out 'unlike product scent, ambient scent can potentially influence reactions to all products sold in a given setting, including those that would be difficult or inappropriate to add fragrance'. Spangenberg et al. (2005, p. 1584) indicated that 'many retailers have begun to rely on ambient scents not associated with any particular product to attract customers and influence them once in the store environment'. However research on ambient scent is less common than object or product scent (Gulus and Bloch, 1995, Bone and Ellen, 1999).

3.3.4.2 Affective Responses

Both models suggest that olfaction affects emotions which in turn affect consumer responses. Bone and Ellen (1999, p. 244) outline that 'odors are hypothesized to affect consumers by changing approach/avoidance behaviours, altering moods state and affecting elaboration'. Gulus and Bloch (1995, p. 93) indicate that 'affective responses to ambient scent are expected to result in approach or avoidance reactions

relevant to the consumption situation'. This coincides with the Mehrabian and Russell (1974) model and Bitner's (1992) model. However Bone and Ellen (1999, p. 250) indicate that 'evidence of a direct relationship between scent pleasantness and evaluative response is mixed'. Michon et al. (2005, p. 577) concur and appropriately note 'using odor as a strategic atmospheric variable is risky because odor effects are difficult to predict'. Nonetheless Bone and Ellen (1999) do note that never has a pleasant (unpleasant) 'odor' have a negative (positive) affect on consumers.

As previously noted atmosphere is multidimensional. Gulus and Bloch (1995, p. 92) signify that 'non-scent characteristics of the environment may influence the level of affective responses that would otherwise result from scent alone'. For example the effects of a pleasant olfaction may be increased by the presence of pleasant music or colour. Gulus and Bloch (1985, p. 92) indicate that 'the combination of these factors may be greater than the sum of the parts'. Knasko (1995) noted that the congruency of 'odor' with the environment is also extremely important. Bone and Jantrania (1992) suggested that the congruity of a products scent with the products attributes influences scent reactions. A similar reaction may occur with ambient scent (Gulus and Bloch, 1995).

Mitchell et al. (1995) suggested that pleasant 'ambient odors' are found to affect consumers' decision making depending on whether the 'odors' are congruent or incongruent with the target product class. A 'congruent odor' would be the smell of coffee from a coffee store or the smell of perfumed candles and soaps from a bath shop. An 'incongruent odor' would be when the smell strongly associated with one product class for instance, the 'coffee odor', may be presented while the consumer is

making a decision about another product class, for instance perfumed candles (Mitchell et al., 1995). This can often be the case in shopping centres when the two stores are placed beside each other. Gulus and Bloch (1995, p. 92) noted that ‘a pleasant scent may not elicit positive affective responses when the scent is mismatches with other features of the environment’.

Spangenberg et al. (2006) concurred and suggested that pleasant ambient scents can be unsuccessful in their desired affect if they are incongruent with consumers’ expectations or preferences regarding a store. Spangenberg et al. (2006, p. 1286) found that ‘scent appropriateness or congruity is an important evaluative influence’. For example a floral scent that is pleasing in isolation may be viewed as inappropriate for a motorcycle dealership (Gulus and Bloch, 1995).

Mattila and Wirtz (2001) empirically demonstrated the effects that music and olfaction can have when suited to one another and the environment. They found that when the scent of lavender, a low arousal scent, was combined with slow tempo music, low arousal music, it led to higher evaluations than using the same scent with high arousal music. Also when fast tempo music, high arousal music, was combined with grapefruit, high arousal scent, it had a more positive effect on approach behaviour than when the music was combined with lavender. Their findings indicated that when ‘stimuli in the environment act together to provide a coherent atmosphere, the individual in the environment will react more positively’ (Mattila and Wirtz, 2001, p. 285). Morrison et al. (2011) conducted research on music and olfaction and their research combined high volume music and a vanilla aroma. This

resulted ‘in an enhancement of pleasure levels, suggesting a congruency effect’ that was similarly to Mattilat and Wiirtz (2001) research (Morrison et al., 2011, p. 562).

Spangenberg et al. (2005, p. 1587) were of the same mind and their findings indicated that ‘consistency between an ambient scent and music in a retail setting leads to more favourable evolutions of the store, its merchandise and the store environment’. Spangenberg et al. (2005) also found that behavioural intentions to visit the store are positively affected by the fit or consistency between ambient scent and music. Spangenberg et al. (2005) suggested that in some cases when there was an inconsistency between the two stimuli that evolutions and behavioural intentions are either not affected or negatively affected. Chebat and Michon (2003), Mitchell et al. (2005) and Morrison et al. (2011) concurred and indicated that the congruency of the olfaction affected consumer decision making and behaviour.

Also important to consider is consumers awareness of olfaction affecting their behaviour. Many consumers may be unaware of olfaction in the environment. Davies et al. (2003, p. 622) indicated that ‘consumers responding to smell without realising can lead to difficulties for retailers and researchers’. The use of olfaction can however achieve response without distracting from other stimuli such as colour or music. For researchers the fundamental problem exists of how to assess whether a response is related to an olfaction stimulus when the consumer is unaware that they are actually processing that stimulus (Davies et al., 2003).

Over the years olfaction has received a mixed response within research. Knasko (1992, p. 27) specified that ‘research concerning the effects of odor performance is

scarce and the findings are contradictory'. Some research has shown that pleasant olfaction significantly increased approach behaviours such as lingering time or the amount of time spent in stores. Knasko (1995, p. 484) findings suggested that 'pleasant environments can improve mood and increase various types of approach behaviour'. Knasko (1995) found that respondents in a pleasant room environment reported being in a better mood and looked longer at the photographs than in a no olfaction condition.

Research has suggested that olfaction increases the number of items purchased or the total amount of money spent. Hirsch (1995) found that when in pleasantly scented casinos gamblers spent more on slot machines than when it was not scented. The actual figure was not identified. However Spangenberg et al. (2006) noted that effects of congruent scents on sales are their most important finding as they found evidence of the effects of varying scents on actual sales figures. These findings suggest that like other environmental stimuli, olfaction can influence approach-avoidance behaviour and mood. On the other hand, Orth and Bourrain (2005) found that scents did not affect consumer stimulation directly and that dispensing pleasant scents into retail environments does not necessarily enhance high consumer stimulation resulting in exploratory behaviour. Knasko (1995) also indicated that within their study, 'pleasant odors' did not influence the evaluations of the photographs.

Toller et al. (1985, pp. 8-9) noted that 'we now live in a highly odourised world, whether or not we wish it'. Due to this it is important to begin to fully understand the effects that olfaction can have on approach-avoidance behaviour. Knasko (1995, p.

480) indicated that 'in general malodors tend to depress mood and approach behaviour while pleasant odors tend to improve mood and increase approach behaviour.' However it is difficult to predict how such an 'odourised' environment is affecting sense of smell (Toller et al., 1985). Listening to high levels of sound can damage the sense of hearing; similarly there lies the possibility that constant exposure to high levels of scents and artificial scents may alter our sense of smell over a lifetime (Toller et al., 1985).

Gulus and Bloch (1995) noted that any research in the area of atmospherics can provide vital information and this is particularly true with in the area of olfaction which has been largely ignored. For example it is acknowledged that environments such as Starbucks and Insomnia recognise the importance of a fresh coffee smell in attracting customers. However olfaction has still remained an under-researched dimension. There is a much needed call for research and attention in the area of olfaction and its affects on consumer approach-avoidance behaviour. As Lawless (1991, p. 377) expanded on 'while the amount of evidence for effects of odors on moods and their physiological correlates is mounting, a coherent theory is lacking.' The next element to be discussed is layout and similar to lighting, there has been limited work carried out in this area.

3.3.5 Spatial Layout and Functionality

It was Kotler (1973) who began the debate about design, layout and other atmospheric devices as influencing factors on consumer behaviour and their patronage. Following on, Markin et al. (1976) focused on the 'retail space' and

highlighted the importance of stimuli in retail space. Bitner (1992, p. 66) indicated that ‘because service environments are purposeful environments,...spatial layout and functionality of the physical surroundings are particularly important’. Many authors have acknowledged the significance of a retail space and layout throughout the literature (Spies et al., 1997, Aghazadeh, 2006, Kent, 2007). Kent (2007, p. 735) clearly identified that as ‘experiences have become more important, the store environment has taken on a greater significance providing space for interactivity, socialisation and communication’.

Kent (2007, p. 737) also indicates that the ‘concept of retail space as serving a more abstract social purpose concerns the use and design of retail spaces in the store itself, and in the extension into the wider shopping environment’. The significance of the visual and store layout in creating these social and purpose built service environment is evident in the extensive literature surrounding servicescapes, store atmosphere and visual merchandising. As Markin et al. (1976) pointed out, stores are designed to create a dynamic interplay between the customer and the store.

It was Bitner (1992) who drew our attention to the servicescape variable of ‘Spatial layout and Function’. Bitner (1992, p. 66) noted that ‘Spatial layout refers to the ways in which machinery, equipment, and furnishings are arranged, the size and shape of those items, and the spatial relationships among them’. Functionality refers to the ability of those items to accomplish goals and facilitate performance in store (Bitner, 1992). Aghazadeh (2006, p. 304, 306) noted that ‘the goal of a retail layout is to maximise the sales of a store’ and ‘that companies should try to make the layout as presentable and appealing to the customer’s eye as possible’. Davies and Tilley

(2004, p. 11) note that ‘the design of the interior of his [the retailers] store can facilitate the achievement of these objective is by the use of the most appropriate fixtures and fittings, accessories and aisle widths and other environmental considerations such as colours’. Newman and Foxall (2003) concurred and noted that fixtures, fittings and the arrangement of merchandise are the retailers’ tools with which to delight and engage the consumer.

The focus on layout has moved from being a display function to becoming more and more important as a way of visual merchandising and retail design. Within the layout literature ‘retail design’ overlaps with Bitner’s (1992) definition of ‘spatial layout and function’. Retail design is concerned with the design of space to achieve approach behaviour and ‘spatial layout and function’ is concerned with facilitating performance and achieving service environment goals. Throughout the literature, there is reference made to spatial layout, design, creative layout, store design, display function or visual merchandising (Bitner, 1992, Lea-Greenwood, 1998, Davies and Tilley, 2004, Kent, 2007). From the exterior window display to the interior shop, each one concerns some aspect of display, layout or design surrounding the service environment.

However layout and functionality is the least researched of Bitner’s (1992) servicescape variables. Lea-greenwood (1998, p. 325) suggest reasons for the lack of research could stem from its complexity and the difficulty to ‘meaningfully communicate and analysis visual merchandising’. As mentioned, layout has many associations and stems across many disciplines from retail design to visual merchandising. Across each of the disciplines there has been a lack of academic

research. Spies et al. (1997) noted that there have been very few studies about layout and its effect on customer's behaviour.

Davies and Ward (2005, p. 506) noted that 'the literature that considers retail physicality can be divided between those that consider the internality of the store and those that focus on its externality'. According to Newman and Patel (2004, p. 775) 'internal and external layouts help create the store atmosphere that is crucial for success'. However Lea-Greenwood (1998, p. 325) noted that there has been more reference to internal design and 'although a number of in-store triggers are identified; no direct mention is made of window display'. It is important to note that though external and internal variables are frequently separated, they often draw from each other to create the store atmosphere.

As noted, Bitner's third dimension ties in very closely with layout & function. Signs, symbols & artefacts are to be found on the interior and exterior of the store and are visual communication tools (Bitner, 1992). Tombs and McColl-Kennedy (2003) also highlighted that signs and symbols relate to design features in the store. As can be seen there is crossover in literature of layout and design. Due to the blurring in the literature of layout and design, there is very limited research examining signs and symbols in relation to design of store but rather research focuses on branding. Bitner (1992) herself suggested that sign, symbols & artefacts included the décor of the store. The external layout and internal layout will be looked at next and how it relates to the third dimension will be explored.

3.3.5.1 External Layout

Davies and Tilley (2004, p. 10) suggested that many 'consumer's make their purchasing decisions based on visual influences and that therefore getting the message 'right first time' is of vital importance'. The first portrayal of a service environment a consumer will see is the shopping front. Well-designed shopping fronts are an attraction in themselves for consumers (Omar, 1999). Lea-Greenwood (1998, p. 325) indicated that 'if first impressions and appearances are important indicators of store image, then store window display must play an important role in a consumer's decision on whether to enter a store or not'. Lea-Greenwood (1998, p. 325) further noted that 'window displays, can act as an attractor or as an inhibitor towards consumer patronage behaviour. It can be described as a vitally important visual communication tool by the retailer...to the passing or potential consumer'. Hasty and Reardon (1997, p. 264) concurred and indicated that the 'main purpose of windows is to attract attention and create an image to potential customers standing outside'.

Davies (1998) indicated that product image and retail image have been shown to be closely related in the context of buying behaviour. Products displayed in window displays should be there to reinforce the retailer's in store image, in order to attract approach behaviours. Kent (2007, p. 736) suggested that 'window displays have long provided a consistent opportunity for creative practices in department stores, although in other sectors and smaller stores, windows took on a more functional purpose to present a selection of goods sold inside.' It is important to note that functionality plays a vital role in store design. Bitner (1992) refers to functionality of

the layout and highlights the importance of functionality in determining the services goals. Kent (2003, p. 136) illustrates the importance by suggesting that ‘design also has functionality, to display merchandise effectively using visual images, to instil trust, consistency and quality in the consumers mind’. Kent (2003, p. 136) also noted that by the 1990s retail design become bolder and ‘store as design came to relate consumer behavioural needs to functionality’.

3.3.5.2 Internal Layout

Improving store layout and design has become an essential component for retailers in their pursuit for the ideal engaging atmosphere or for a more appropriate atmosphere for the service offered. It is important to note that not all retailers want an engaging atmosphere where consumers are encouraged to browse or stay. Some service offerings hope to improve throughput, and do not wish for consumers to stay within the environment. Fast food restaurants, airports and supermarkets are some examples of services that may hope to achieve faster throughput. Kent (2003, p. 139) noted that design has not been central to all retailers and that it is ‘more significant among retailers who supply customers wants rather than their needs, where visual appearances matter as much as functionality’. Many worldwide service stores, such as Niketown, Apple and Claire’s Accessories, have gone this route by creating a multi-sensory experience for their customers. The introduction of multi-sensory experiences in stores has clearly been more evident in recent years (Kent, 2007). ‘As spaces for consumption, play or enjoyment, these stores provide an important medium for communication and interaction, as well as arenas for synthesising leisure and consumption’ (Kent, 2007, p. 737).

Kent (2007, p. 740) indicated that ‘depending on the client organisation and the context of the particular retail sector, it [the retail design] may be characterised as a largely creative, predominantly visual activity, in the case of so-called ‘boutique’ design, or a primarily organisational and spatial planning-focused activity, as is often the case in large format food and multi-category store design’. Retailers can choose from many formats of store layout in order to choose a format most suitable to the service being offered. Lewison (1994, p. 289) indicated that ‘floor layouts are extremely important because they strongly influence in-store patterns, shopping atmosphere, shopping behaviour, and operational efficiency’. Choosing the correct format will help in achieving the retailers aim of creating an engaging atmosphere or one of fast turnover.

Baker et al. (2002) noted that a critical determinant towards the creation of a store image is careful store layout. Careful layout of an environment helps people to find their way through a store and also helps create an image appropriate to the store (Spies et al., 1997). Bitner (1992) concurred and indicate that careful layout of the environment can help consumers to orientate, find their way, learn to understand signs, get the feeling of personal control and mastery. In a shopping context, store layout represents the task environment (Iyer, 1989). Iyer (1989, p. 41) noted that ‘the task environment, especially in a shopping context, acts as an external memory aid and is a valuable bank of information’. As previously noted Mehrabian and Russell (1984) introduced the notion of ‘information load’ to measure environmental stimulation. Spies et al. (1997, p. 2) noted that ‘the information rate usually is higher for new and unusual than for familiar stimuli’. Donovan and Rossiter (1984) noted that high or low load environments can affect the emotional states of the consumer.

Thus it is important to have the correct layout suitable to a store's offering. Levi and Weitz (2007) note that it can be difficult to achieve this, as a suitable store layout must balance many objectives - objectives that often conflict.

One of these conflicting objectives, noted by Spies et al. (1997, p. 2), is that 'the layout should be clear but not too simple, so that there is the possibility of surprise and unexpectedness'. The retailer should entice the consumer to move around the store. However, Levy and Weitz (2004, p. 591) indicate that 'if the layout is too complex, customers may find it difficult to locate the merchandise they are looking for and decide not to patronize the store'. A certain in-between level is needed. Stores will differ in the level that is appropriate to its image. For example, Niketown and Apple use multi-sensory experience to balance function and visual appeal. This enables them to keep the consumers interested and informed. Levi and Weitz (2004, p. 591) indicate that a 'trade-off between ease of finding merchandise and providing a varied and interesting layout is determined by the needs of the consumer'. As Vasquez and Bruce (2000) point out, store layout design is intended to make shopping enjoyable for the customer.

Store layouts can play a key role not only in making shopping enjoyable for customers by fulfilling their needs, but also in influencing their wants and preferences (Simonson, 1999). They are an essential part of the retailers' image due to the impact they can have on changing shopping behaviour (Newman and Foxall, 2003, Newman and Patel, 2003). The interior and exterior of the store must be used effectively together to enhance the space and function of the store in order to meet the consumer's needs and to further influence their preferences. The design should

allow consumer's easy access to the goods. Merrilees and Miller (2001) suggest that store layout design is one of the most important determinants of store loyalty.

Levy and Weitz (2007, p. 495) suggest that 'one method of encouraging exploration is to present them [consumers] with a layout that facilitates a specific traffic pattern.' Mehrabian and Russell (1974) note that exploration is important in approach behaviour. The layout retailers choose is usually determined by a number of factors, market positioning, type of merchandise, size of store, cost of merchandise, security (McGoldrick, 1990). Also, consumers may require different layouts depending on the amount of time they have to spend, their mobility or even at various stages in the business cycle (Newman and Foxall, 2003). Newman and Foxall (2003, p. 591) noted that 'gender differences in shopping styles can also justify quite specific changes to fashion store formats and space allocation'.

According to established conventional retailing store layout theory, (Mason et al., 1991, Ghosh, 1994, Lewison, 1994, Levy and Weitz, 2007), there are three major types of store layout, namely grid, freeform and racetrack. Retailers may employ a number of different variations or modifications of these three layout patterns in order to achieve their ideal service layout. The grid layout is a rectangular arrangement of long parallel aisles with merchandise on shelves and displays on both sides of the aisles (Levy and Weitz, 2007). The common grid layout facilitates routine and planned shopping behaviour, this allows for flexibility and makes it easier for consumers to identify and purchase their pre-selected products quickly (Lewison, 1994, Levy and Weitz, 2007). Levy and Weitz (2007, p. 496) note that 'a grid layout does not provide a visually exciting design, but is well suited for shopping trips'.

Vrechopoulos et al. (2004, p. 14) agree and note that the grid layout 'is widely favoured by the grocery sector because the majority of customers visiting grocery stores have planned their purchases'.

The second layout is called a free-form layout or a boutique layout (Levy and Weitz, 2007). However Ghosh (1994) and Lewison (1994) differentiated between the two layouts indicating that the boutique layout is built around a particular theme whilst free-form provides a range of displays. Levy and Weitz (2007, p. 497) indicate that they are both 'relaxing environments that facilitate shopping and browsing'. Levy and Weitz (2007), Lewinson (1994) and Mason et al., (1991) all indicated that the free-form layout is designed specifically for convenience and allows for customers to move in any direction within the store easily. Levy and Weitz (2007) also note that it can increase the time that consumers spend in the store. Vrechopoulos et al. (2004, p. 14) state that 'it is mainly used by large department stores (e.g., fashion stores)'. Kent (2007) noted that they are largely creative and predominantly visual layouts.

The race track also known as a loop is the third major type of layout (Levy and Weitz, 2007). Vrechopoulos et al. (2004, p. 14) noted that 'in the racetrack layout, the sales floor is organized into individual, semi-separate areas, each built around a particular shopping theme'. Due to the main aisle facilitating customer movement through the store, the racetrack layout leads the customer along specific paths to visit as many store areas or departments as possible (Lewison, 1994). This layout creates an unusual and interesting shopping experience, thus creating and providing entertainment for its customers (Mason et al., 1991, Lewison, 1994, Levi and Weitz, 2007).

Davies and Tilley (2004) noted that of vital importance to store layout is the use of feature areas, special displays and shelf space. Feature areas and special displays, are areas designed to attract the customer's attention to additional purchasing opportunities. They can include promotional aisles or displays, end use displays, freestanding fixtures or the external window displays (Levy and Weitz, 2004). Chevalier (1975, p. 426) suggested that 'for the retailer, displays create in-store excitement and increase the average amount purchased'. Lewison (1994) concurred and noted that 'special displays highlight merchandise that can attract customers'. Sueraz (2005, p. 861) indicated that 'from an academic perspective interest in shelf layout appears to be weak'. This is not surprising as there is a lack of research in layout (Spies et al., 1997).

Dréze et al. (1994) indicated that it is not easy to manipulate attention through better space management; this is due to retail environments being very noisy, with hundreds of competing stimuli vying for attention. However, Levi and Weitz (2004) note that by providing an interesting store layout, the consumer will be more attracted to roam throughout the shop. The layout, special displays or features of the store will be constantly changing with promotions and with the seasons (Hasty and Reardon, 1997).

One final element will be examined and it relates to Bitner's (1992) third dimension of signs, symbols and artefacts. Turley and Milliman (2000) suggest that overall cleanliness forms part of the interior variables. Though not directly mentioned in Bitner's (1992) servicescape model, cleanliness cannot be overlooked within the literature. Cleanliness is considered to be an important element in a service

environment (Wakefield and Blodgett, 1996, Harris and Ezeh, 2008, Yavetz and Gilboa, 2010, Miles et al., 2012).

Harris and Ezeh (2008, p. 49) noted that cleanliness can be defined as ‘the absence of dirt (including dust, stains and bad smells)’. Of particular interest is the relationship of cleanliness to the olfaction factor. As noted, the smell of pine or disinfectant can give an impression of overall cleanliness in an environment. In their review of the servicescape literature, Ezeh and Harris (2007) suggested that cleanliness forms part of the ambience dimension and not Bitner’s (1992) third dimension of signs, symbols and artefacts. This would correspond with Harris and Ezeh (2008) who relate cleanliness to ‘bad smell’.

Though it is considered an important part of the service environment, there is relatively little theoretical background in the services literature. Research relating to sanitation and health in the environmental psychology literature has given insight to the services literature. Harris and Ezeh (2008) cite Rosenquist (2005) in relating cleanliness to Maslow’s hierarchy of needs.

Cleanliness is most often researched with other elements of the service environment. Harris and Ezeh (2008) examine music, aroma and cleanliness as part of an ambience factor; Wakefield and Blodgett (1996) and Kim and Moon (2009) examine layout, aesthetics and cleanliness. Wakefield and Blodgett (1996) in their research on sports arenas and casinos suggested that it was ‘especially in those situations in which customers must spend several hours in the leisure setting’ that cleanliness is significant to the service environment. Recently Vilnai-Yavetz and Gilboa (2010,

p.228) focused their research on cleanliness and ‘found that the cleanliness of the servicescape influenced customers’ feeling of pleasantness, customer trust in the service, prestige attribution, and approach behaviors’.

Wakefield and Blodegett (1996) also highlight that services research has mainly focused on service encounters that are short in duration, banks, insurance, fast-food restaurants. Lack of research relating to the cleanliness factor on its own in the services literature could be because of the type of services that are being examined. More recently Barber and Scarcelli (2010) noted that few studies adequately measure perceptions of cleanliness.

3.4 An Expanded Servicescape

Bitner’s (1992) servicescape model has been utilised in understanding the online environments but further expansion of Bitner’s (1992) servicescape model has also been explored in the offline environments. As noted the servicescape has said to contain a social element (Tombs and McColl-Kennedy, 2003, Hightower Jr, 2010, Rosenbaum and Massiah, 2011, Nguyen et al., 2012). It was Tombs and McColl-Kennedy (2003) proposed the social-servicescape model that incorporated the elements of purchase occasion, social density, displayed emotion of others, customer’s affective responses and customer’s cognitive responses. In particular the areas that differentiate the social-servicescape model from the servicescape model are the direct inclusion of purchase intention, the social density and displayed emotions of others.

Purchase occasion relates to the type of service that is being consumed, utilitarian or hedonic. Tombs and McColl-Kennedy (2003, p. 459) suggest that it is essential to 'consider the occasion specific aspect of behaviour settings or context'. Mattila and Wirtz (2006) related the concept of target arousal with customers purchase intentions in order to gain a better understanding of how environmental stimuli can influence behaviour. This would appear to tie in with Tombs and McColl-Kennedy (2003) purchase occasion context.

The second aspect that Tombs and McColl Kennedy (2003) introduced to the servicescape literature was the concept of social density. Though crowding had been mentioned previously within the services literature (Machleit and Eroglu, 2000, Turley and Milliman, 2000), there was a scarcity in research relating to the impact of others in the service environments (Tombs and McColl-Kennedy, 2003). Tombs and McColl-Kennedy (2003, p. 461) suggested that 'social density itself creates affective events through the unavoidable interactions with others' The social servicescape is said to relate to the interaction between people in the environment (Hightower et al., 2002), this can relate to customer-customer interaction or employee-customer interaction. Baker (1992) indicated customers form social relationships with focal employees of a store and that affects both their perceptions and overall quality of the store. At the heart of the SPC framework is the interaction between customers and employees, which describe the satisfaction mirror. Though it may be overlooked, Bitner (1992) also makes note in her model of employees and customers responses and the social iterations between them. However Bitner (1992) does not include this within her physical environmental dimensions.

Brady and Cronin (2001) suggested that the physical elements of the servicescape are where people share the same ambience, music or lighting while the social servicescape relates to the human interaction (Hightower et al. 2002). Nguyen et al. (2012, p. 269) point out that ‘these are thus distinctly different concepts’. The servicescape relates to the environmental stimuli whilst the social-servicescape focusses on interactions with customers and how these interactions influence customers. In incorporating the social dimension into their model, Tombs and McColl-Kennedy (2003) fail to acknowledge the influence of the servicescape on employees and their behaviours. However this is not surprising, as has been clearly stated the research to date on servicescapes has primary been focussed on customers, with employees being largely ignored within the literature. This research acknowledges the social interactions between customers and employees but similarly to Nguyen et al. (2012) considers it to be distinctly different concept to the servicescape dimensions that have been discussed.

The third aspect that Tombs and McColl-McColl Kennedy (2003) discussed in their model was the concept of displayed emotions of others. This relates to emotional cognition which will be discussed in the next chapter.

3.5 Conclusion

As highlighted, retailers need to be continually evaluating their store atmosphere to suit the changing market needs. It is thus important to consider each element of the environmental stimuli; music, colour, lighting, olfaction, design, layout and cleanliness, when deciding store environments as each one interact to help create the

stores atmosphere. As Markin et al. (1976, p. 51) precisely point out ‘cues and information that affect the customer’s perceptual processes, and hence his attitudes and images, almost never come in single file. Instead they come in mixed bunches’.

As illustrated Bitner’s (1992) servicescape model focuses on the environmental stimuli and considerable research has been carried out examining the many elements of the environmental stimuli. The majority of research has focussed on music or colour, with some research examining two elements of the servicescape in a single study. Cleanliness appears to be the least researched of the environmental stimuli (Vilnai-Yavets and Gilboa, 2010). The servicescape model has been used in examining both online and offline service environments and was further developed to incorporate a social component (Tombs and McColl-Kennedy, 2003). However, this social component is considered to be separate to the physical environmental stimuli.

To date the focus of the servicescape literature has been on customers. However Parish et al. (2008) argue that employees spend considerable more time in the service environment than customers. There has been some research relating to the impact of the work environment on employees. This body of research literature is called work climates and will be examined next.

4 CHAPTER 4 Work Climate

We shape our buildings and afterwards they shape us,

Winston Churchill (1943)

4.1 Introduction

Downey et al. (1975, p. 149) indicated that ‘the environment has long been recognized as a source of influence on the individual's behavior’. This has clearly been highlighted in chapter three in the servicescape literature. However the focus of the servicescape literature is on customers rather than employees. The work climate literature concentrates on employees and examines the work environment on various levels. The literature is very broad and it is difficult to pinpoint what it is exactly (Kuenzi and Schminke, 2009). Rousseau (1988, p. 140) suggested that ‘climate is a content-free concept, denoting in a sense generic perceptions of the context in which an individual behaves and responds’

It has been recognised that work climate literature attempts to examine the perceptions of individuals regarding their work environment and how these perceptions drive their attitudes and behaviours (Downey et al., 1975, Schneider, 2000, Dietz et al., 2004). Thus it clearly relates to the SOR paradigm discussed in chapter two, this will be further discussed in this chapter. Early on the work climate construct was acknowledged as being significant due to it taking an alternative approach to the motivational theories that explained just ‘about everything that happens to people at work’ (Schneider and Reichers, 1983, p. 20). It acknowledged the important role that perceptions play (Schneider and Reichers, 1983), it focused on aggregated or group level data to discover relationships (Schneider et al., 1980, Schneider and Bartlett, 1970), it advanced the distinct clarification between psychological climates and organisational climates (Schneider and Reichers, 1983) and has led to the development of internal marketing (IM) in the services literature.

Each of these different areas, the importance of perceptions, organisation and psychological climates, aggregate or group level and IM will be looked at within this chapter. The lack of research relating to employee environmental stimuli and the impact it has on employees will also be examined at the end of this chapter. Firstly internal marketing (IM) will be reviewed as it closely ties in with the Service Profit Chain (SPC) discussed in chapter one.

4.2 Internal Marketing (IM)

Berry and Parasuraman (1992, p. 25) identified that IM related to ‘attracting, developing, motivating and retaining qualified employees through job-products that satisfy their needs...the philosophy of treating employees as customers... and the strategy of shaping jobs to fit human needs’. Principally IM is the practical application of the marketing philosophy, it is considered to be a managerial approach to ensure customer satisfaction through first filling the needs of the employee (Berry et al., 1976). Berry (2002, p. 68) suggested that ‘the stress placed on customer satisfaction in external marketing is just as appropriate, just as necessary, in internal marketing’. Within IM, employee are considered to be the ‘internal customers’ and similarly to external customers, internal customers’ needs should be fulfilled to keep them satisfied (Rust et al., 1996). It is grounded in the belief that having satisfied employees will positively influence customer satisfaction (Gounaris, 2008). Implicit in this assumption is that satisfied customers will become more loyal (Ahmed and Rafiq, 2003).

The employee satisfaction leading to customer satisfaction is the key concept within the Service Profit Chain (SPC). The SPC foundations are within the realm of service marketing, and the concept of IM was started in the service marketing literature when service quality received considerable attention (Rafiq and Ahmed, 1998). There is an inherent connection between IM and SPC, due to IM requiring a service market orientation (Shiu and Yu, 2010). A service marketing orientation cannot be present if employee commitment is absent; IM leads itself towards the service market orientation through the commitment of employees (Varey, 1995). IM is critical and fundamental in creating a service market orientation.

Greene et al. (1994) reflect that IM is the key to superior service, particularly important in the service sector and views employees as internal customers. However, a key difficulty that organisations have is how to implement IM. According to Ahmed and Rafiq (2003, p.1186) 'IM is an unusually slippery concept, easy to visualise and yet exasperatingly difficult to operationalise'. Due to this difficulty IM is often left neglected (Gounaris, 2008). Ueno (2010) reflected upon the different elements that have been proposed to describe IM in order to manage and implement IM. Throughout the literature on IM, authors have emphasised different elements of IM, for example, Berry and Parasuraman (1992) suggested seven essentials of internal marketing, Ahmed and Rafiq (2003, 2004) identified five elements of internal marketing, whilst Ueno (2010) suggested that the elements can be summarised under twelve headings; recruitment and selection, training, teamwork, empowerment, performance measurement and reward system, communication, culture, top management commitment, employee commitment and involvement, internal marketing segmentation and targeting, internal marketing research and HR issues.

Interestingly, Ueno (2010, p. 76) further stated that these elements 'play a role in the development of a service culture'. Whilst Varey (1995, p.42) indicated that 'this [IM] is achieved through the development of a service climate'. The terms 'culture' and 'climate' have been used interchangeable with the literature, this will be explored in more detail within this chapter.

'In essence, internal marketing involves creating an organizational climate in general, and job-products in particular, that lead to the right service personnel performing the service in the right way' (Berry, 2002, p. 69). Greene et al. (1994, p. 5) concurred and suggested that IM 'can be defined as the promoting of the firm and its product(s) or product lines to the firms employees', its purpose to create a work climate that employees are happy to stay in. Though IM is central to service marketing Greene et al. (1994), Varey (1995) and Berry (2002) point out its purpose is about creating a pleasant work environment for employees, thus its foundations can be viewed within the work climate literature.

In order to satisfy their needs, employee's perceptions of the work environment need to be considered. Schulte et al. (2006, p. 645) recognised that 'researchers have long been interested in understanding employees' perceptions of the work environment and how these perceptions influence individuals' work-related attitudes and behaviours'. Rousseau (1988) proposed that in a sense, perceptions are simply informational cues that are received or registered by an individual. Essentially the climate literature has been viewed as the individuals perceptions of their social setting of which that person takes part in (Rousseau, 1988). Rousseau (1988) suggested that perceptions are a central concept to virtually all models of

organisational behaviour that seek to explain behaviour, for example, motivation or leadership. According to Schneider and Bowen (1993) employee's perceptions and valuations of the work climate should positively impact on customers. Yuan et al. (2001, p. 50) concurred and reiterated that employee's perceptions and valuations of 'major work climate variables should impact positively on the implementation of customer service programs', thus reinforcing that employee behaviours affect customer behaviours, a key premise in the SPC.

Yoon et al.'s (2001) research bridged the gap between the services literature and work climates by examining the impact of a facet specific element of the work climate literature, service climate, and how it impacts employee's attitudinal and behavioural responses. Another facet specific element of the work climate is the physical environmental stimuli or as coined in the service marketing literature, the servicescape. As highlighted in chapter three, the impact of the servicescape on employee's responses is not a central position in the marketing literature. Though not central in the marketing literature, the work climate literature has suggested that the work environmental stimuli are important in influencing employee responses and 'servicescape' is referred to as the 'physical work climate' for employees (Schneider, 1975, Schneider, 1987, Schneider, 2000, Schneider et al., 2009). Schneider et al. (2000) suggested that the physical work environment can affect employees' attitudes and behaviours which in turn can affect customers. Furthermore in his SPC, Heskett et al (1994) state that 'workplace design' forms part of the internal service quality.

Both employee and customer behaviours are considered to be of major importance to both practitioners and academics alike (Churchill Jr. and Surprenant, 1982,

Schneider, 1987, Bitner, 1990, Rust and Zahorik, 1993, Wakefield and Blodgett, 1996, Oliver, 1997, Babin and Boles, 1998, Schneider et al., 2000, Homburg and Stock, 2004, Anselmsson, 2006, Harris and Ezeh, 2008, Kim and Moon, 2009, Gazzoli et al., 2010) and as noted central to the IM literature is how employee behaviour can impact customers. Work climates and where it has stemmed from will be looked at next to gain a better understanding of employee perceptions.

4.3 Work Climates

For more than half a century, scholars have sought to understand organisational work climates antecedents and consequences (Schneider and Reichers, 1983, Kuenzi and Schminke, 2009). Early on Schneider (1975) defined work climates as the meaning employees affix to the work related policies, practices, and procedures and the behaviour that gets rewarded, supported or expected in the organisation. Since then there has been many interpretations of what work climate is (Schneider et al., 2002). Denison (1996) notes that there seems to be no limit to the work climate domain other than the ability of theorists, researchers and practitioners to evoke new adjectives to describe what work climate is. Hellriegel and Slocum Jr (1974, p. 256) concurred and suggested that work climate refers to 'a set of attributes which can be perceived about a particular organisation and/or its subsystems, and that may be induced from the way that organisation and/or its subsystems deal with their members and environment'.

Within the literature there have been many terms used for work climate including organisational climate, organisational work climate or as was simply referred to in the beginning ‘climate’ and these terms have all been used interchangeably within the literature (Kuenzi and Schminke, 2009). See figure 4.1 for the evolution in the literature. More recently organisational work climate or work climates has been the term in use, with older research referring to the term as organisational climates or climates. These terms will be used interchangeably here also due to the terms having date relevance.

According to Schneider and Reichers (1983, p. 19) ‘organisational climate has been a popular concept for theorizing and research for some time’. Organisational climate research is grounded in the Gestalt psychology of Kurt Lewin (Schneider et al., 2000) and Gestalt psychology stems from the Gestalt school of thought developed out of Max Wertheimer’s study of perceptual phenomena (Chaplin and Krawiec, 1960). Max Wertheimer along with Kurt Koffka and Wolfgang Köhler, were the three founders of the school. The meaning of Gestalt is ‘form’ or ‘the organisation of’ (Chaplin and Krawiec, 1960) and the major contribution of Gestalt psychology was its importance on ‘the organisation of’ perceptions.

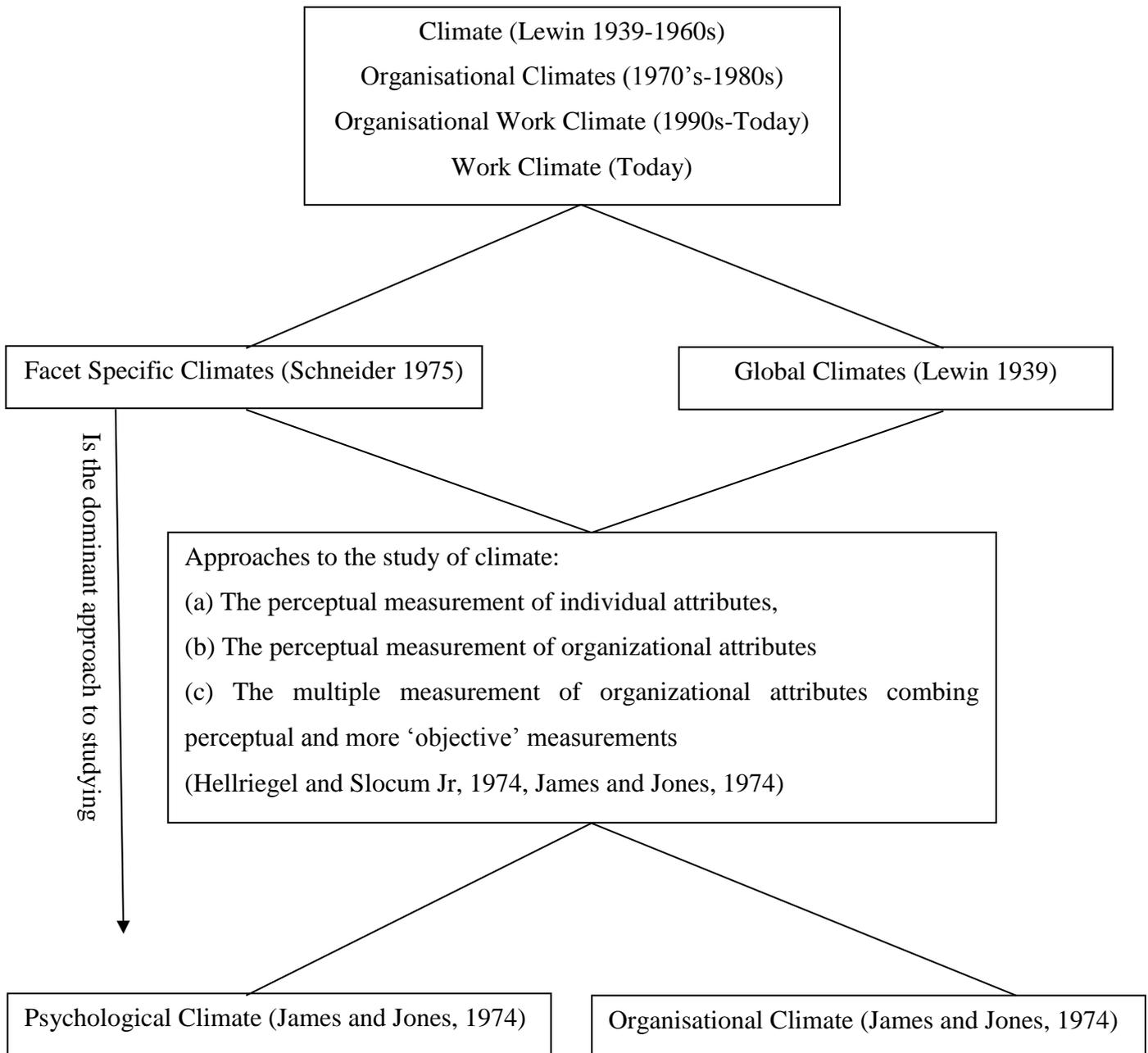


Figure 4.1 Evolution of the Climate Literature

Source: Author

The organisation of perceptions is where the whole is something special and not defined by the sum of its parts (Schneider, 1975). The critical notion of ‘the whole’ or ‘the Gestalt’ means ‘that individual elements of perception are formed into wholes that represent more than the simple sum of the specifics of the individual elements. A table, for example, is more than the sum of four small pieces of wood and one large piece of wood’ (Schneider et al., 2000, p. 22). Another example would be atmospherics, which is more than just the sum of the components of music, colour, lighting or design.

The Gestalt school of thought has had major influences on the work climate literature. Two major principles to stem from the Gestalt school of thought into the climate literature were that the task of the perceiver is to a) apprehend the order which objectively exists in the world and b) to create new order by a process of integration through thought (Chaplin and Krawiec, 1960, Schneider, 1975). Our environment is assumed to have order and the perceiver’s task is to discover that order (Schneider, 1975). The perceiver is compelled to find order in their environment and is driven to create order (Schneider, 1975). A preliminary definition of climate was that climate perceptions represent a meaningful understanding of order in the perceiver’s world based on their surrounding environment (Schneider, 2000). It also looks at how these perceptions drive individual’s behaviour and attitudes (Downey et al., 1975, Dietz et al., 2004). In defining climates Schneider and Reichers (1983) suggested that organisational climate is a perceptual phenomenon. The influence and the important role of perceptions in understanding behaviour at work is acknowledged throughout the work climates literature. Since the early research on work climates, the majority of

researchers have treated climates as perceptual in nature (James and Jones, 1974, Schneider, 1975, 2000, Kuenzi and Schminke, 2009).

In the beginning of perceptual research, using the terminology of Mehrabian and Russell (1974), the emphasis was on the Stimuli (S) (Chaplin and Krawiec, 1960). This turned towards an S-R orientation, where responses (R) became an important variable. Later on the role of learning, motivation and emotion became important determinants of perceptual research (Chaplin and Krawiec, 1960). Hellreigel and Slocum Jr (1974, p. 257) concurred and explained ‘that factors such as attitude, values, and motives are widely recognised as playing an important role in the perceptual process’. Chaplin and Krawiec (1960, p. 70) observed that ‘the S-R orientation of the traditional psychophysicists became an S-O-R orientation’ with the O being the Organism aspect. As identified in chapter two, Mehrabian and Russell (1974) attempted to present an integrated framework that provided a broad overview of the environment. They recommended an S-O-R paradigm, which suggested that the (S) component is the environmental stimulus; the (O) component is the emotional states and the (R) is the approach-avoidance responses. The S-O-R paradigm has its basis in environmental psychology literature.

Lewin (1951) point out that it was Lewin et al. (1939) that introduced the concept of climate into the social psychology literature. They used the terms ‘social climate’ and ‘social atmosphere’ interchangeably within their research. Schulte et al. (2006b) explained that early researchers used the terms social climate or atmosphere frequently. Schneider et al. (2000) concurred and stressed that Likert (1961) as well as Katz and Kahn (1978) emphasised that the conditions (climate and atmosphere)

created in the work place can have major implications on employees. Interestingly, as noted in the servicescape chapter, Kotler (1973) coined the term ‘atmospherics’ to describe the intentional control and manipulation of environmental cues in the service environment. However the term climate rather than atmosphere became the more dominant term in the climate literature. Similarly to early environmental psychology, early organisational climate concerned itself with the environment and the environments impact on human behaviour, specifically employee behaviour in the workplace. In this early organisational climate literature, Kurt Lewin’s field theory or the ‘Lewinian perspective’ played an important role. Lewin expressed his basic formula in terms of a simple equation

$$B=f(P,E),$$

where, B=Behaviour, E = Environment, and P= Person

Lewin’s (1951) field theory produced the formula stating that behaviour is a function of the person and environment. From the time of Lewin’s (1951) established formula, a person’s environment as a determinant of their behaviour has been the cornerstone of the climate literature (Glick, 1985). Denison (1996, p. 634) coincided and remarked that ‘according to the Lewinian field theory, the social world can be neatly divided into Bs, Ps, and Es’. Thus, in order to study a phenomenon such as organizational climate (or culture) from Lewin's perspective, the person must, by definition, be analytically separate from the social context.’ Denison (1996) further illustrated that this perspective clarifies the approach taken in the climate literature. That is that the person, the employees, are separate from the environment, they work

in the environment but they do not create their environment. It looks at how employees perceive their work environment and how the work environment impacts on those within it.

Burke et al. (2002) suggested that there are three primary perspectives on the significance of the work environment perceptions that have emerged in the climate literature, a) general psychological climate (James and James, 1989) b) multiple stakeholder (Burke et al., 1992), and c) social constructionist or 'climate for something' (Schneider and Reichers, 1983). Burke et al. (2002) identify that these three perspectives vary with their theoretical bases of employee work environment perceptions. Firstly, the general psychological climate refers to the variables designed to assess work environments (James and James, 1989). This generalized climate looks at individual's perceptions of their work environment characteristics. James and James (1989) viewed psychological climate perceptions as partial functions of personal value systems. Burke et al. (2002, p. 328) concurred and indicated that 'the general psychological climate perspective explicitly emphasizes the importance of personal values (e.g., clarity, responsibility, support, and friendly social relations) in the appraisal of work environment attributes.' Personal values imply what is important to the individual and provide the schemas or groupings to appraise the work environment in terms of its relevance to the individual (Burke et al., 2002). Personal value can be defined as 'that which a person wants or seeks to obtain' because it is 'that which one regards as conducive to one's welfare' (Locke, 1976, p. 1304). James et al. (2008, p. 8) suggested that 'in sum, personal values produce the schemas employed to cognitively appraise work environment attributes in terms of their significance to the individual'.

James et al. (2008) explain that the purpose of James and James's (1989) research was to attempt to tie climate to personal value in order to build a case that a single higher order factor underlies measurements of psychological climate. James and James (1989) research suggested that climate psychology has a set of variables that are readily identifiable for appraising work environments in terms of groupings. They highlighted in their research that there was a limited number of generalized climate dimensions for explaining work environment. According to James and James (1989, p. 740) the four psychological climates (PC) that have 'demonstrated factorial invariance in the diverse work environments are a) Role Stress and Lack of Harmony, b) Leader, Support and Facilitation, c) Job Challenge and Autonomy, and d) Workgroup Cooperation, Friendliness, and Warmth'. These factors tie in with Locke's (1976) proposed four latent factors. Locke (1976) suggested that the following latent variables underlie most important personal, work-related values. These latent factors are (1) desires for clarity, harmony, and justice; (2) desires for challenge, independence, and responsibility; (3) desires for work facilitation, support, and recognition; and (4) desires for warm and friendly social relations.

Psychological climate-general (PCg) is the latent psychological common denominator for the four factors. This general factor suggests that individuals employ a much simpler appraisal of their environment than was suggested previously (James et al., 2008). 'Stated simply, people respond to work environments in terms of how they perceive these environments, and the key substantive concern of perception is the degree to which individuals perceive themselves as being personally benefited as opposed to being personally harmed (hindered) by their presence in the environment' (James and James, 1989, p. 748).

The second perspective is looking at the multiple stakeholders. It is an extension of the single higher order factor model by James and James (1989). Burke et al. (1992) extended James and James' (1989) work and concluded that, in addition to personal values, values that are exposed to individuals in work by the organisation are likely to form additional schemas or groups for making sense of one's environment. Burke et al. (1992) proposed that first order psychological climate factors reflect both personal values and also organisational values towards other stakeholders. Stakeholders are a group of individuals within or outside an organisation, such as employees, customers, suppliers or contractors that have a stake in the organisation and that can be affected by its actions (Burke et al., 2002). Similarly to the psychological climate perspective, the multiple stakeholder perspective calls for the use of generalised dimensions for assessing individuals appraisals. The multiple stakeholder perspective also places greater emphasis on the use of stakeholder – specific dimensions unlike the social constructivist view which looks for a climate for something (Burke et al., 2002). It was Schneider (1975) who suggested the notion of a 'climate for something'. Initially the climate literature had attempted to identify the person's environment on a broad global level. Schneider (1975) proposed that it should be narrowed down and be facet specific. The global climate and facet-specific climates will be looked in more detail next.

4.3.1 Global Verses Facet-Specific Climates

In the beginning the climate literature appeared to be primarily researched as a broad global conceptualisation of work climates and its influence on employees (James and Jones, 1974, Kuenzi and Schminke, 2009). The 'early work climate was viewed as a

molar construct that would allow researchers to examine broad based determinants of employee behaviour' (Kuenzi and Schminke, 2009, p. 636). Litwin and Stringer (1968, p. 38) suggested that the global climate model 'hopes to provide a quantification, or, rather, a diagram of the total situational variables-a diagram that is relevant to the analysis and prediction of the total effects of the environment on groups of individuals'. Essentially, climate research attempted to understand the total or global situational influences in organisations and their effects on individuals (Kuenzi and Schminke, 2009).

This focus on climate as a global construct had many difficulties. One of the biggest difficulties was that there existed no consensus on how to define 'global climate' (James and Jones, 1974). Lack of definition of what climates were led to some ambiguity and vagueness of the construct (Kuenzi and Schminke, 2009). Schneider (2000) also pointed out that, due to lack of clarification as what constituted 'climate', there was a lack of a theoretical base and global climate dimensions were developed and added to the literature without clear rationale. Furthermore it was difficult to provide clear guidelines for measurement; for example there were a lack of appropriate procedures for aggregating individual climate perceptions to the group or organisational level (Glick, 1985).

Schneider (1975) acknowledged in his review article that organisational climate was so vast and global that he proposed the idea that climate have a focus or be facet-specific. Schneider et al. (1998) recommended that due to the fact that many climates could exist simultaneously within an organisation, climate research needed to be a climate for 'something' (Schneider, 1975). It needed to be related to particular

aspects of the organisational context such as justice (Naumann and Bennett, 2000), safety (Zohar, 2000), ethical (Victor and Cullen, 1988), service (Chunag and Schneider, 2002) and the physical work climate (which can also be referred to as environmental stimuli) (Davis, 1984). In particular the ‘service climate’ and ‘physical work climate’ can be closely related to services marketing literature. ‘Much of the work that has been done on service employees has concerned the creation of what has been called a ‘service climate’’ (Chuang and Scheinder, 2002, p. 71). Schneider (1975) proposed the notion of facet-specific climates to deal with the confusion and lack of clarity of the definition and conceptual issues with the global climate constructs.

In more recent research and studies, the many aspects of work climate have generally been dealt with on a facet-specific basis, with each area falling into a different literature (Kuenzi and Schminke, 2009), for example the service climate falling within the services marketing literature. Kuenzi and Schminke (2009, p. 637) noted that ‘this recent focus on facet-specific climates has increased our understanding of work climates and their influence on employee and organization outcomes’. There are different approaches to studying climates, Organisational and Psychological climates and they will be looked at next.

4.3.2 Organisational and Psychological Climates

Rousseau (1988) suggested that debates over the meaning of perceptual differences led to different ‘types’ of climate emerging. James and Jones (1974) concurred and highlighted that researchers were initially confused as to whether to treat work

climate as an organisational attribute, which was a unit level construct or an individual attribute, which was viewed as an individual-level construct (Kuenzi and Schminke, 2009). Both Hellriegel and Slocum Jr (1974) and James and Jones (1974) helped to clarify the situation by building a consensus around three distinct approaches to the study of climate: '(a) the perceptual measurement of individual attributes, (b) the perceptual measurement of organizational attributes, and (c) the multiple measurement of organizational attributes combining perceptual and more 'objective' measurements' (Denison, 1996, p. 623). These perspectives were separated into two views, organisational climate and psychological climate (James and Jones, 1974). The first perspective is characterised as the psychological climate and the second and third perspective are characterised as the organisational climate (Denison, 1996).

Over the years there have been attempts to differentiate the two climate views. James and Jones (1974, p. 1100) specified that 'organizational climate was viewed as a situationally determined psychological process in which organizational climate variables were considered to be either causative or moderator factors of performance and attitude'. Organisational climate represents a shared or summary perception that people attach to particular characteristics of the work place (Schneider and Reichers, 1983, Ostroff, 1993). Denison (1996) concurred and noted that organisational climate concerned itself with the perceptual measurement of organisational attributes. When perceptions of a work unit's employees are aggregated they reflect organisational climate (Kuenzi and Schminke, 2009). Kuenzi and Schminke (2009, p.638) proposed that 'the origins of organizational climate lie in individual perceptions; however, it is a property of the unit'. When employees within a unit

agree on their perceptions of the work place, unit level or organisational climate is said to exist (Schulte et al., 2006b). It was viewed as a logical extension of the psychological climate (James et al., 2008).

On the other hand psychological climate was seen to be the study of the perceptual measurement of individual attributes (Glick, 1985, Denison, 1996, Burke et al., 2002). It is based on perceptions of individual aspects of the work environment (James and Jones, 1974, Ostroff, 1993). Schulte et al. (2006, p. 646) agreed and proposed that 'individuals' own perceptions of the work environment constitute psychological climate at the individual level of analysis'. These perceptions are psychological and abstract in nature and are not treated as organisational descriptions but rather as information as to how the individual organise their understanding of the environment (Rousseau, 1988). These perceptions need not agree with those of other individuals in the same environment (Rousseau, 1988). According to Burke et al. (2002) the facet specific perspective is the dominant approach to the study of psychological climates.

Schulte et al. (2006) identified that past studies have tended to focus on psychological climate or on organisational climate. Though they have been separated in the literature and in research, psychological and organisational climates are conceptually related to each other (Schulte et al., 2006). According to Schulte et al. (2006) the relationship between psychological and organisational climate can be described as compositional, as they both refer to the same context but describe different phenomena at different levels of analysis, individual and unit. The important requirement is that these psychological climates are shared in order to

make the inference that they are organisational climates (James et al., 2008). James and Jones (1974, p. 1109) concur and illustrated that ‘the distinction between organisational climate and psychological climate permits the assessment of the differential importance of these two sets of variables in predicting both individual attitudes and behaviour and performances on an organisational or group level.’ Most recently James et al. (2008) concurred and suggested that the products of aggregates of psychological climate are typically referred to as organizational climate.

Although conceptually related, Glick (1985) suggested that it is important to differentiate between organisational climate and psychological climate because they may differ empirically. ‘Organisational climate connotes an organizational unit of theory, it does not refer to the climate of an individual, workgroup, occupation, department or job’ (Glick, 1985, p. 602). Ostroff (1993, p. 58) concurred and suggested that ‘organizational climate is the appropriate level of analysis for environment factors’.

4.3.3 Aggregate Level

Climate research takes an alternative approach to the motivational theories. In doing so, climate research has provided researchers with a focus on multiple levels of analysis (Schneider and Reichers, 1983). Instead of looking at research at an individual level, climate research could focus on aggregated or group level data to discover relationships between clusters of perceptions and organisationally relevant outcomes (Schneider et al., 1980, Schneider and Reichers, 1983). Rousseau (1988) suggested that ‘aggregate’, similarly to psychological and organisational climates, is

a type of climate. Aggregated climates are suggested to be individual perceptions that are averaged out at some hierarchical level, for example workgroup, department or division (Rousseau, 1988). Similarly to psychological climate, aggregated climates are thought to intervene between situational factors and individual responses (Joyce and Slocum Jr, 1984). Although aggregated climate derives from individual level data reflecting within unit agreement the meaning of the aggregate climate is not well established in the literature (Rousseau, 1988).

To date the literature has mainly focussed on the above mentioned climates of psychology and organisational climates. Although not directly recognised by other researchers as a type of climate, aggregate level has played an important role in the influence of past research. Schneider and Reichers (1983, p.21) highlighted that ‘while the importance of group membership and group influences on individual and organizational functioning has never been denied by researchers in this field, group phenomena have not, perhaps, received the attention they deserve in explaining behavior at work.’ Rousseau (1988, p. 143) proposed that ‘aggregate climates are constructed based on membership of individuals in some identifiable unit of the formal organisation and within-unit agreement or consensus in perceptions’. Joyce and Slocum Jr (1984) concurred and suggested that aggregated climates are based on groupings of individuals that identify themselves within a formal work group and that are unanimous in their perceptions.

Within past research aggregated climates have been recognized based on empirically observed between unit differences (Rousseau, 1988). ‘These differences are attributed to real situational differences that lead members within a unit to agree

more with each other regarding their perceptions than they do with members of other units' (Rousseau, 1988, p.143). Rousseau (1988) also pointed out that the etiology, theoretical implications, value and meaning associated with aggregate climate are not well established in the literature. This could be why considerable research has focussed on psychological or organisational climate.

4.3.4 Culture and Climate

In their research, Katz and Kahn (1978) use the term climate and culture interchangeably in their perspective on the social psychology of the organisation. This is not surprising as both climates and culture deal with the ways that individuals attempt to understand their environments (Kuenzi and Schminke, 2009). Reichers and Schneider (1990) concur and note that both climate and culture deal with the way members of an organisation make sense of their environment. 'These sense making attempts manifest themselves as shared meanings that form the basis of action' (Reichers and Schneider, 1990, p. 29). 'Furthermore, both are learned through interaction among group members' (Kuenzi and Schminke, 2009, p. 638). Within the literature there exists similarities between the two constructs and it has been suggested that they are related to one another. Schneider (2000) suggests that they are 'siblings' and that the two constructs are usefully linked, practically and conceptually.

Reichers and Schneider (1990) noted that culture exists at a higher level of thought than climate and that climate is a manifestation of culture (Schein, 2010). In examining culture, Schein (2010) suggested three levels of Culture; artifacts,

espoused beliefs & values and basic underlying assumptions. However, Schein (2010, p. 24) highlights that his terminology of ‘artifacts’ can be considered ‘the climate of the group’ and are the visible or feelable structures in place. These visible features are the environmental stimuli that employees can see and is further clarified in section 4.5 as the facet specific climate of employee environmental stimuli. .

Denison (1996) remarked that although it is clear that culture and climate are very distinct perspectives on organisational environments, it is a lot less unclear if they actually examine distinct organisational phenomena. The two perspectives often overlap and Denison (1996) presents a summary of the similarities between the two literatures as per Table 4.1

However there are several reasons to view the two constructs as two separate and distinct constructs (Kuenzi and Schminke, 2009). James et al. (2008) identified that ‘the development of literatures on climate and culture initially proceeded independently’. The climate literature has a longer history than culture and each stems from different academic roots (Kuenzi and Schminke, 2009). Rousseau (1988) concurred and remarked that climate is a mature concept in organisational research.

| Areas of Convergence | Examples of Convergence |
|------------------------------|---|
| Definition of the Phenomenon | Both focus on the internal social psychological environment as a holistic, collectively defined social context |
| Central Theoretical Issues | Shared dilemma: context is created by interaction, but context determines interaction. Definition of domain varies greatly by individual theorist -Dynamics between the whole and the part -Multiple layers of analysis -Dimensions vs. holistic analysis -Subcultures vs. unitary culture |
| Content & Substance | High overlap between the dimensions studied by quantitative culture researcher and earlier studies by climate researchers |
| Epistemology & Methods | Recent emergence of quantitative culture studies and qualitative climate studies |
| Theoretical Foundations | Roots of culture research are in social constructionism. Roots of climate research are in Lewinian field theory. Many recent studies have crossed or combined these traditions |

Table 4.1 Areas of Convergence in the Culture and Climate Literature

Source: Denison (1996, p. 627)

The climate literature has been around for a considerably longer period than culture (Denison 1996). The definition of what constitutes culture was more concrete than climate in its early stages. In the beginning of the climate literature there were a wide variety of classifications for climate. Reichers and Schneider (1990) pointed out that the definition of climate was left unattended to for many years. It was not till the major introduction of the concept in the late 1960s that Litwin and Stringer (1968) focused on defining the concept of climate.

Hellriegel and Slocum Jr, (1974, p. 256) definition of work climate was ‘a set of attributes which can be perceived about a particular organisation and/or its subsystems, and that may be induced from the way that organisation and/or its subsystems deal with their members and environment’. For almost thirty years the climate concept was left open to debate (Reichers and Schneider, 1990). On the other hand, the construct of culture was defined at its very beginning. ‘Culture researchers have devoted numerous articles and books to explorations of the nature of concept, to its definition, and to discussions of what it is and is not ‘in’ the concept of culture (for example, norms, values, shared meaning and/or rituals, myths, artefacts, languages, assumptions, and so on)’(Reichers and Schneider, 1990, p. 18).

By examining their history and definitions it can clearly be acknowledged that the two concepts have fundamentally different roots. Denison (1996, p. 634) noted that ‘the climate literature has its roots in the field theory of Kurt Lewin (1951), whereas the culture literature is grounded in the symbolic interaction and social construction perspectives developed by Mead (1934) and Berger and Luckmann (1966)’. Within the roots of climate literature, organisational effectiveness was an important aspect to understand and the climate construct helped to understand why some organisations were more effective than others (Reichers and Schneider, 1990). ‘In contrast, effectiveness is not an important aspect to anthropology, especially in comparative or cultural anthropology; description is the issue’ (Reichers and Schneider, 1990, p. 20). The study of culture concerns itself with comparisons not with the effectiveness of an organisation.

Furthermore, the social construction perspective and the symbolic interaction perspective are in contrast to the Lewinian perspective as they suggest that the environment and the person cannot be analytically separated and that the ‘members of the social systems are best regarded as being agents and subjects simultaneously’ (Denison, 1996, p. 635). The Lewinian perspective, developed from Kurt Lewin (1951) field theory, is distinct from the cultural perspective of social construction as it separates the person from the social environment (Edwards, 2008). Climate stems from the Gestalt school of thought, where perceptions play a vital role, where as culture stems from the social construct. ‘These distinct ancestries have affected both the study and measurement of the climate and culture’ literatures (Kuenzi and Schminke, 2009, p. 638).

Denison (1996) formed a table to highlight the main differences between the climate and culture literatures. Table 4.2 presents a summary of the contrasts that exist in epistemology, point of view, methodology, level of analysis, temporal orientation, theoretical foundations, and disciplinary base of the culture and climate perspectives.

| Difference | Culture Literature | Climate Literature |
|-------------------------|--------------------------------------|-------------------------------|
| Epistemology | Contextualized and Idiographic | Comparative & normative |
| Point of View | Emic (native point of view) | Etic (researcher's viewpoint) |
| Methodology | Qualitative field observations | Quantitative survey data |
| Level of Analysis | Underlying values and Assumptions | Surface-level manifestation |
| Temporal orientation | Historical evaluation | A historical snapshot |
| Theoretical Foundations | Social construction; Critical theory | Lewinian field theory |
| Discipline | Sociology & anthropology | Psychology |

Table 4.2 Areas of Difference in the Culture and Climate Literature

Source: Denison (1996, p.625)

As previously examined, psychological climate was the study of the perceptual measurement of individual attributes and is based on perceptions of individual aspects of the work (James and Jones, 1974, Glick, 1985, Denison, 1996, Burke et al., 2002). On the other hand organisational climate represents a shared perception that people attach to particular aspects of the work place (Schneider and Reichers, 1983, Ostroff, 1993, Denison, 1996). However, as James et al (2008, p.20) importantly clarified 'climate remains a property of the individuals regardless of the agreement or disagreement among individuals perceptions'. When there is agreement among individuals within a work unit then individual perceptions are shared and can be grouped together to characterise a work unit, which is called organisational climate, but the perceptions still remain the property of the individual regardless if they are grouped together or not (James, 1982). Thus aggregation does not change the definition of the climate construct (James et al., 2008).

On the other hand, culture is defined by the system values and shared behavioural expectations in an organisation (Katz and Kahn, 1978, James et al., 2008). ‘The system values and system norms are often viewed as the products of group dynamic, namely interactions among systems members designed to collectively develop (create, enact, evolve) a set of socially constructed schemas for making sense out of the function of the system’ (James et al., 2008, p. 21, see, Katz and Kahn, 1978, for a review). Similarly to psychological climate, these socially constructed groupings form a basis for identifying what it is that is significant about the system (James et al., 2008). James et al. (2008, p. 21) point out that ‘unlike those related to psychological climate, however, beliefs pertaining to system functioning are not designed to reflect individuals personal valuations’. What differentiates climate from culture is that climate reflects an individual’s perception or orientation and is a property of the individual at both psychological level and organisational level, whereas culture reflects a system-level orientation and is part of the system (James et al., 2008). According to James et al. (2008, p. 20), ‘this individual-versus-system orientation is a key to set climate and culture as two distinct constructs.’ The predominant climate contributions that have relationships with the service marketing literature will be looked at next.

4.4 Climate Contributions

4.4.1 Attraction-Selection-Attrition Model (ASA)

Schneider and his colleagues, (Schneider, 1978, Schneider, 1987, Schneider and Reichers, 1983, Reichers, 1987) explored the issue of where organisational climates came from through what they called an 'Attraction-Selection-Attrition' (ASA) process. The ASA framework is based on the assumption that people within an organisation become more similar in their disposition over time and due to this they become more homogenous in attitude (Schneider et al., 1995). It was Schneider (1978) who proposed a person-oriented model of organisational behaviour and from this he further proposed that organisations become defined by the people in them as a natural outcome of ASA cycle (Schneider, 1987).

The ASA model was first referred to as the selection-attraction-attrition (SAA) model and later became the ASA model (Schneider and Reichers, 1983). The ASA model 'outlines a framework for understanding organisational behavior that integrates both individual and organisational theories' (Schneider et al., 1995, p. 748). The framework proposes that the outcome of three related processes; attraction, selection and attrition determine the types of people that can be found in an organisation, which consequently defines the nature of the organisation, its structure and its climate (Schneider et al., 1995, Schneider, 1987). Schneider proposed that organisation processes, such as selection into the organisation and the individual's attraction to an organisation and the attrition from the organisation, combine to produce relatively similar memberships in any one organisation (Schneider and Reichers, 1983, Schneider, 1987, Schneider et al., 1995). The attraction process concerns an individual's preference for a particular organisation based on their personal characteristics or goals and the fit of these characteristics or goals with that of the organisation (Schneider et al., 1995). The next step is the selection process and this can involve formal or informal selection procedures used

by the organisation to choose employees that they find to be most suited to the organisations goals or attributes (Schneider et al., 1995). Schneider et al. (1995, p. 749) indicate that the final step is the attrition process which ‘refers to the idea that people will leave an organization they do not fit’.

The concept of ASA can also be related to Internal Marketing (IM). As Berry and Parasuraman (1992) pointed out IM relates to the attraction, retention, motivation and development of staff. The prime purpose of IM is to create a work climate that employee are satisfied to work in (Greene et al. 1994). According to Schenider and Reichers (1983, p. 27) members of the organisation therefore have ‘similar perceptions and attach similar meanings to organizational events because the members themselves are in some ways similar to each other’. Wangenheim et al. (2007, p. 691) concurred and proposed that ‘this is because individuals in a group or organisation share certain experiences: an intolerable supervisor and poor working conditions, or a very respectful supervisor and positive working conditions’. Schneider et al. (1995) suggested that organisational behaviour research supports this homogeneity hypothesis. Therefore the development of a positive and satisfactory climate enables employees to be better aware and more responsive to customer goals, whilst negative climates hinder customer satisfaction. This corresponds with the IM and SPC that satisfied employees will influence customer satisfaction.

According to Wangenheim et al. (2007, p. 691) ‘job satisfaction should be related to customer satisfaction due to the homogeneity of the working climate within a group of employees’. Positive working environments increase job satisfaction affecting customer satisfaction, whilst a negative working climate will ultimately decrease both employee and customer satisfaction (Wangenheim et al., 2007). Wangenheim et

al. (2007) suggest that the ASA framework therefore proposes an existence of a service climate in the organisation.

Denison (1996, p. 624) explain that 'this process [ASA] interestingly portrays the dynamics of climate formation in terms of membership changes coupled with socialization processes'. The ASA framework proposes that persons make environments, which is in contrast to the Lewin's (1951) P-E model, which forms a fundamental cornerstone of the climate literature. As noted, the P-E model suggests that the person is separate from the environment. Whereas the ASA framework promoted the idea that 'the situation is not independent of the people in the setting; the situation is the people there behaving as they do' (Schneider et al., 1995, p. 751). Schneider (1987) suggests that Kurt Lewin may have overstated the case when he proposed that behaviour is a function of person. Denison (1996) acknowledged that it was during the 1980's, when there was growing influence of the culture perspective, that research into where organisational climates came from appeared through the process of the ASA framework. In discussing the ASA framework, Schneider et al. (1995) updated the framework and suggest that the people in the organisation determine structure, process and culture. The ASA framework originated from the climate literature but according to Schneider et al. (1995) it plays a role in determining the culture of the organisation. This shift towards a culture perspective may have been due to the large presence of cultural research that was taking place during the 1980s.

However as Denison (1996) observed culture and climate are two distinct concepts and should be treated as such. Overall the ASA framework suggests that the work

climate can affect employee satisfaction, which in turn affects customer satisfaction, thus giving support to the Service Profit Chain (SPC). Emotional contagion, which will be looked at next, gives an alternative approach to understanding employee satisfaction affecting customer satisfaction.

4.4.2 Emotional Contagion

The concept of emotional contagion has been used in the marketing research to explain the link between employee satisfaction and customer satisfaction (Tombs and McColl-Kennedy, 2003, Homburg and Stock, 2004, Wangenheim et al., 2007). It attempts to explain how emotions are transmitted between people (Barger and Grandey, 2006). Howard and Gengler (2001, p. 189) explained that emotional contagion ‘refers to someone (hereafter the receiver) catching the emotion being experienced by another (hereafter the sender), wherein the emotion of the receiver converges with that of the sender’.

There are two main foci of the emotional contagion hypothesis, firstly it suggests ‘that some processes are responsible for emotional contagion and secondly, it suggests that there are strong individual differences in the way that some people are susceptible to emotional contagion or are able to transmit their emotions to others’ (Verbeke, 1997, p. 620). Verbeke (1997, p. 620) found that ‘in interactions, people automatically and continually tend to mimic and synchronise their movements with the facial expressions, voices, postures movements, and the instrumental behaviours of others’. This process of copying others is called primitive emotional contagion (Barger and Grandey, 2006). The process of primitive emotional contagion refers to

how emotions infect others via an automatic process which involves two mechanisms, feedback and mimicry (Barger and Grandey, 2006). According to Hatfield et al. (1994) mimicry is the tendency to imitate others expressions or behaviours, whilst feedback is the response mechanism for the observed expression or behaviour. Within the emotional contagion hypothesis the main focus is on the facial expressions of others (Verbeke, 1997).

Emotional contagion theory suggests that there are transmitters and infection-prone people. Transmitters are those that transmit their emotions on to others. According to Hatfield et al. (1994, p. 138) transmitters are ‘charismatic, colorful, and entertaining; had often taught, lectured, or worked as a salesperson ... [they] scored high on dominance, affiliation and exhibition’. The controlling ability of the transmitter is not a conscious process but rather a automatic response or implicit one (Verbeke, 1997). The infection prone people or catchers are those that are susceptible to the emotions of others. They focus attention on other peoples’ emotions that are around them (Hatfield et al., 1994).

Due to their susceptibility, infection-prone people tend to make those that they are communicating to, for example a customer, feel relaxed and the receiver, customer, is likely to communicate more information back to the infection-prone person (Verbeke, 1997). Similarly to transmitters, infection prone people are unaware of their attentional involvement towards those around them. Verbeke (1997) suggested that infection-prone people can make themselves miserable due to them being susceptible to negative emotions of others around them, and emotionally negative

individuals like to express how they are feeling and are drawn towards those that are empathetic.

Hatfield et al. (1994) highlighted that although some people are susceptible and others transmitters of emotions, the two categories are not mutually exclusive. Based on Hatfield et al. (1994) work, Verbeke (1997) suggested a possible fourfold typology as per table 4.3. Hatfield et al. (1994) suggested that there exists four separate types of individuals within the emotional contagion research; charismatics, empathetics, expansives and blands.

| | High Ability to Infect (High Primitive Control) | Low Ability to Infect (Low Primitive Control) |
|--|--|--|
| High Capability to be Infected (High Primitive Empathy) | Charismatics (CH) | Empathetics (EM) |
| Low Capability to be Infected (Low Primitive Empathy) | Expansives (EX) | Blands (BL) |

Table 4.3 The Typology of People Based upon Their Emotional Constitution

Source: Verbeke (1997, p. 622)

Charismatics are able to infect the emotions of those around them and are easily infected by emotions of others. Empathetics are susceptible to emotions, they catch others emotions but are not easily able to infect others with their own emotions (Hatfield et al., 1994). The third group are called expansive, they are able to infect others but have no empathy towards those that they are infecting. Expansives may display inappropriate behaviours, for example making a joke at a funeral (Verbeke, 1997). The last group are called blands and are unable to infect others and are not infected by those emotions of others around them (Hatfield et al., 1994).

Howard and Gengler (2001, p. 198) found that ‘when senders were happy and receivers liked the senders, receiver emotions converged with the happy emotion of senders, and a positive attitudinal bias occurred.’ Thus in a service context, when employees are satisfied this satisfaction can be transferred over to the customer. Brown and Lam (2008, p. 245) noted that emotional cognition suggests ‘that affect transfer alone (i.e exclusive of quality or value considerations) is sufficient to account for ES [employee satisfaction] -customer response relationships’. However emotional cognition may be limited in its scope in explaining the employee-customer satisfaction link. In describing their social-servicescape model Tombs and McColl-Kennedy (2003) incorporate the concept of emotional cognition and purchase occasion. They suggest ‘customers interact with each other, either consciously or subconsciously, their affective state is likely to be influenced by the displayed emotions of their fellow customers’ and that ‘purchase occasion will determine the spatial layout of the customers, their sociability and whether they identify as part of a larger group’ (Tombs and McColl-Kennedy, 2003, p. 462).

The Service Profit Chain (SPC) framework further extends the scope of the emotional cognition, by suggesting that satisfied employees are more productive, provide better service quality and perceived value, leading to higher customer satisfaction. Brown and Lam (2008, p. 245) clarified that ‘while this view is not incompatible with emotional contagion, its scope is greater, as it suggests a cumulative perceptions of service quality and value are foundations of ES [employee satisfaction] customer response relationships’.

4.5 Facet Specific: Employee Environmental Stimuli

‘Disregarding the well-documented effects of the physical work environment on people’s behaviour leaves behavioural variance unexplained and the relationships between environmental variables and measures of interest to researchers and practitioners (e.g staff turnover, satisfaction and commitment) unexplored.’

(Carlopio, 1996, p. 330)

Although early researchers argued that atmospherics or climates created in work places have significant consequences on employee behaviours (Newman et al., 1966, Schneider, 1975, Davis, 1984), the main focus of research relating to work climates relates to psychological climate, organisational climate or global climate. In more recent years, there has been particular emphasis on many facet specific climate dimensions such as climate for safety or climate for service (Schulte et al., 2006a, Sowinski et al., 2008). Babin and Boles (1996) mention the retail work environment and suggest it is sometimes called climate, though they examined supportive work environments relating to supervisor support, role stress and did not relate their research to environmental stimuli.

This diverse range of research has provided an increased understanding of work climates in certain facet specific climates. However, one facet specific climate that has been overlooked in the literature is how physical environmental stimuli, as suggested by Davis (1984), impacts employees. Davis (1984) suggested that physical environmental stimuli consisted of physical structure, physical stimuli and symbolic artefacts. These are almost identical to Bitner’s (1992) three dimensions of the servicescape that have been thoroughly examined in chapter three.

Early on, Newman (1966) highlighted the need for research into music and Davis (1984, p. 282) advocated for research ‘to examine how the physical environment can be modified to support more efficient behaviour’. Carlopio (1996, p. 330) reinforced the need for research by advocating that ‘many theories of behaviour at work fail to consider the effects of the physical environment on employee behaviour and attitudes.’ More recently, Parish et al. (2008) highlighted that the physical environment or servicescape is often considered less important by managers than other motivational variables.

Brief and Weiss (2002, p. 292) highlighted that research on ‘affective reactions to the physical work environments is small and eclectic, but interesting’. Oldham and colleagues are some of the few researchers who examined elements of environmental stimuli impacting employees (Oldham and Rotchford, 1983, Oldham et al., 1991, Oldham et al. 1995). However, their research is very limited in terms of how they examine environmental stimuli, but also in what they are measuring. They examine darkness, density or spatial density, accessibility and music (Oldham and Rotchford, 1983, Oldham et al., 1991, Oldham et al., 1995). Their research largely ignores the three dimensions of the physical work environment as proposed by Davis (1984) and they do not examine service environments where customers will also be present.

Most recently, Skandrani (2011, p. 52) highlighted the considerable lack of empirical research, ‘despite the accumulated body of knowledge, little interest has been directed to how these store atmospherics might affect employees’. Skandrani et al. (2011) further note that despite the widely recognised importance of the IM and growing interest of the employee-customer satisfaction performance relationship,

research on environmental stimuli impacting employees is astonishingly scant. They carried out qualitative research examining different environmental stimuli and found music to be of particular significance for employees. Furthermore as noted in the SPC 'workplace design' form part of the internal service quality for employee (Heskett et al. 1994).

4.6 Conclusion

The focus of this research is on the environmental stimuli impacting employees and customers in a service environment. As can be seen, elements of both the work climate literature and the services marketing literature have their foundations in the SOR paradigm. However, each literature has a separate focus; work climate relates to employees environmental stimuli, emotional cognition and Lewin's (1951) field theory; whereas services marketing literature relates to the customer environmental stimuli or servicescape, the SPC and satisfaction mirror. Due to each having a unique focus it was essential to include aspects from both literatures in designing the proposed model, as its foundations are based on the SOR paradigm. Furthermore, the SPC specifies the relationships between employees and customers in a service setting. The next chapter will discuss how the model was formed by incorporating elements from each of the areas discussed within the four literature chapters.

5 CHAPTER 5 Methodology

‘A primary objective of virtually all research is to make sense of some aspect of the world experiences’

(Bagozzi and Yi, 2012, p. 12)

5.1 Research Methodology

Having examined the extant literatures, the methodology, to address the research aim and objectives, can now be considered. This chapter specifies the research process that was taken for the research. In outlining the research process, the aims and objectives are proposed, hypotheses constructed, model re-presented and research framework assembled. A predominantly positivistic approach is taken for the data collection stage. Before examining the quantitative data collection stage, the managerial discussions leading to the development of the questionnaire will be discussed. An analysis of the pilot questionnaire is discussed in order to gain an understanding of the issues underlying the final questionnaire. The chapter will close with a description of the two step approach of analysis proposed by Anderson and Gerbing (1988) for using Structural Equation Modelling (SEM).

5.2 The Research Process

Before outlining the research process it is appropriate to specify the philosophical assumption being taken as it will constitute the foundations for the research. According to Aubert-Gamet (1997, p. 27) ‘the environmental impacts of physical settings on consumer behaviour have been analysed using the positivist paradigm’. In their study on emotions and satisfaction, Bigne et al. (2005) followed a positivist paradigm. Donaldson (1996) indicated that a positivist approach is informed by empirical research and is built open from the data. Based on past research on the impact of environmental stimuli both on users’ behaviour and their feelings, a predominantly positivist approach was taken for this research

The research process can take many formats. Many authors develop their own process and stages of research, examples in the extant literature reviewed include (Donovan and Rossiter, 1982, Donovan et al., 1994, Babin et al., 2003, Paulin et al., 2006, Kim and Moon, 2009, Schneider et al., 2009). However, authors mostly follow a similar process of steps. Firstly and most importantly they have a problem definition and then they develop a research design or plan of action, determine their sample frame, collect the data, analyse the data and present the findings academically and sometimes tailor them for a managerial perspective. Hu and Jasper (2010) in their study on store image and its effects on customers, Schneider et al.'s (2009) research on service climate and customer satisfaction and Larivière's (2008) study on the SPC all followed similar steps in their research process.

The first key step that any researcher should take is to find out what the research is hoping to achieve (Saunders et al., 1997). Thus the problem definition identifies what needs to be addressed and gives the research a focus. The review of the literature has identified three significant gaps in need of attention and these will be summarised next.

Firstly Homburg et al. (2009) noted that, despite the widespread acceptance of many of the links in the SPC, further research examining both customer and employee responses and the impact on financial performance is essential to the development of the literature. Traditionally the links in the SPC have been looked at in isolation (Anderson et al., 1994, Anderson et al., 2004, Brown and Lam, 2008). A limited set of authors have examined more than one link in the chain (Hallowell, 1996, Loveman, 1998, Gelade and Young, 2005, Chi and Gursoy, 2009).

Secondly with regard to the servicescape literature, examination of many elements of the environmental stimuli such as music, colour, lighting, layout in any one study is rare (Reimer and Kuehn, 2005, Ezeh and Harris, 2007). Past research has mainly examined only single components in isolation such as music (Herrington and Capella, 1994, Dubé et al., 1995, Herrington and Capella, 1996, Morin et al., 2007), lighting (Areni and Kim, 1994, Cuttle and Brandston, 1995, Summers and Herbert, 2001), olfaction (Spangenberg et al., 1996), colour (Bellizzi and Hite, 1992), with some authors looking at two components (Mattila and Wirtz, 2001, Spangenberg et al., 2005).

Thirdly, past research has been predominantly customer focused. Hoffman and Turley (2002, p. 33) strongly stated that ‘clearly the interaction of the inanimate environment, contact personnel and other customers is an important area of study’. An apparent area that has been under researched is the impact of environmental stimuli on employees. The impact of the environmental stimuli on employees is not fully understood (Bitner, 1992, Parish et al., 2008, Skandrani et al., 2011). Parish et al. (2008, p. 236) noted that ‘a facilities design is important not only because of its direct effect on customers’ experience but also because of its possible indirect effect due to the building impact on service providers’. Han and Ryu (2009, p. 488) suggested that despite the indications that the tangible environment impacts on customer satisfaction and the formation of customer loyalty there is ‘surprisingly little research in the service literature’. This research will therefore combine the servicescape literature and the climate literature with the SPC literature.

5.3 The Research Framework

As noted, over the past few years there has been a growing literature within the services marketing and the organisational behaviour literature implying that environmental stimuli impact both the customer and the employee (Schneider and Bowen, 1985, Wiley, 1991, Bitner, 1992, Schneider et al., 2000, Homburg and Stock, 2004, Kim and Moon, 2009, Schneider et al., 2009). Bigné et al. (2005) indicated that early studies focused on understanding this influencing behaviour from a theoretical standpoint.

The implications of previous research suggest that organisations need to be acutely aware of how they manage a wide range of internal design issues because they appear to affect the perceptions, emotional state and behavioural intentions of employees and the customers. As explained in chapter two, it was Mehrabian and Russell (1974) that suggested SOR as a broad theoretical environmental psychology model to explain the interactions of individuals, their emotions and their environment. This model has been used extensively within the literature (Bitner, 1992, Mano and Oliver, 1993, Donovan et al., 1994, Spies et al., 1997, Turley and Milliman, 2000, Mattila and Wirtz, 2001, Newman, 2007, Parish et al., 2008, Rosenbaum and Massiah, 2011).

Figure 5.1 presents the theoretical model proposed for this research. It has been developed from the building blocks of previous research streams. This model clearly acknowledges the fundamentals of the Mehrabian and Russell (1974) broad environmental psychological framework. In acknowledging the SOR framework this

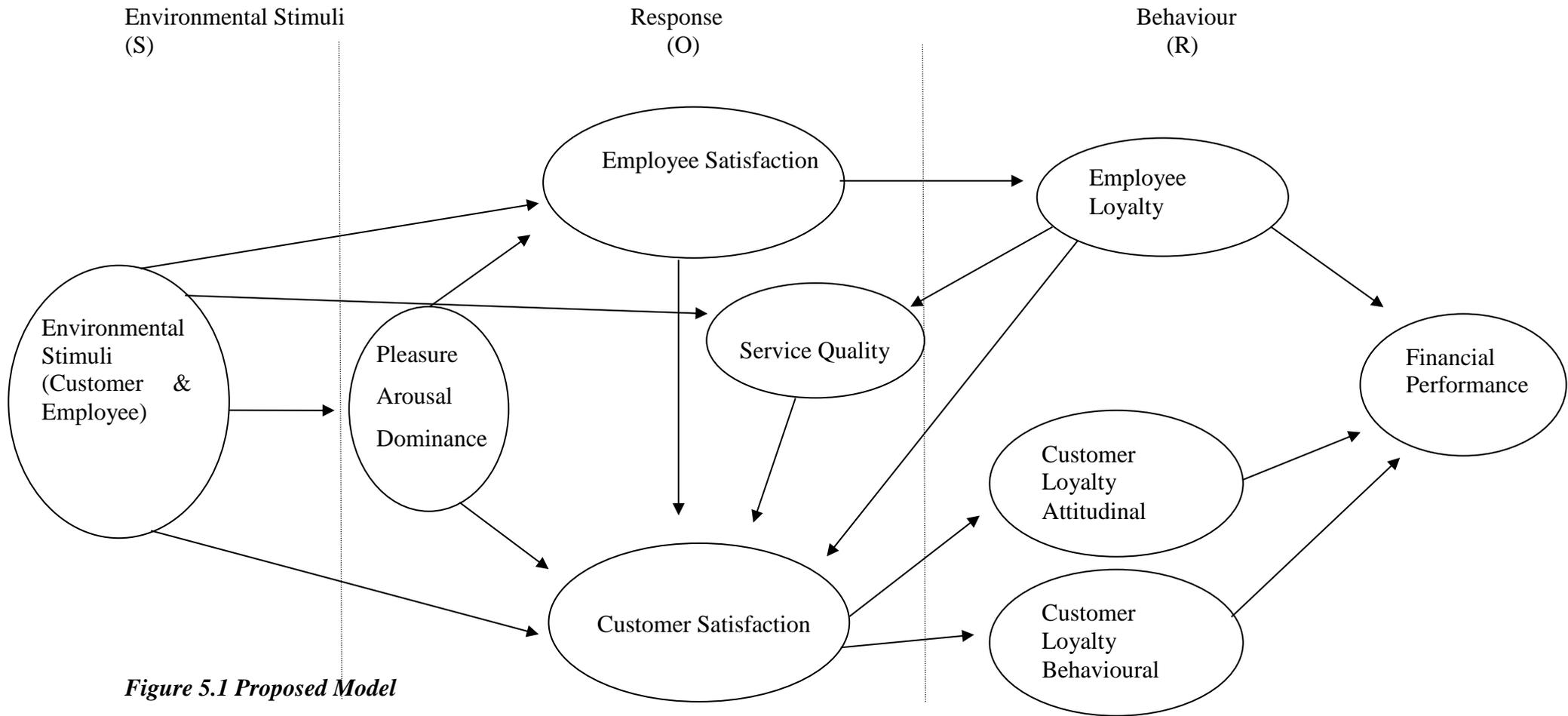
research draws from three main literatures, service marketing, environmental psychology and the climate literature. Specifically this research examines aspects of the servicescape model and the SPC. These graphical models isolate variables and suggest that relationships exist between them.

In the proposed theoretical model, elements of the environmental stimuli, the S component, affect both the customers and employees emotional response, the O component, resulting in employee loyalty or customer loyalty, the R component, with the final factor in the proposed model being the financial performance. Each link within the proposed model will be discussed and the hypotheses within the model are developed. First the research aim and objectives will be examined.

5.4 Research Aim and Objectives

5.4.1 Research Aim

The aim of this research is to investigate the impact of environmental stimuli on the emotional responses of both the customer and the employee, the implications that these stimuli have on their behavioural responses and the subsequent effect on the financial performance.



According to Davis (1984) and Hoffman and Turley (2002) environmental stimuli can be broken down into three dimensions, facility exterior, facility interior and other tangibles. Shostack (1977) and Davis (1984) remarked that these three dimensions are controllable. Based on previous research (Bitner, 1992, Wakefield and Blodgett, 1996a, Schneider et al., 1998, Ezeh and Harris, 2007, Newman, 2007, Parish et al., 2008, Kim and Moon, 2009, Miles et al., 2012) it is assumed that if the elements of the environmental stimuli are controllable, such as the music played, layout chosen and colour used, that then human behaviour can be influenced. As noted the focus of this research is to examine the impact of the environmental stimuli on the SPC. In order to achieve this, the following objectives have been developed along with the links within the proposed model.

In the literature chapters, the terms atmospherics, servicescape, environmental stimuli, service environments, physical environment, physical work environment, work climate and climate has been used in different circumstances throughout the different streams of literature. Mainly, servicescape relates to customers and physical work climate relates to employees. Overall the term environmental stimuli will be used in explaining the objectives. However, where authors have specifically used their own terminology, their term will be used in the discussion of the objectives.

5.4.2 Research Objective 1

The first objective is to explore the links in the SPC. This subsection will be organised by the links in the chain.

Link: Employee Satisfaction-Employee Loyalty

The SPC suggested that employee satisfaction with the job will lead to employees staying in their job for longer (Heskett et al., 1997, Parish et al., 2008). Rust et al. (1996) agreed and noted that satisfaction in the job resulted in intention to remain in the job and that these intentions translate into behaviour, employee retention or loyalty. Heskett et al. (1994) indicated that loyalty is driven by employee satisfaction. From this the following hypothesis was developed

H1 Employee Satisfaction positively influences Employee Loyalty

Link: Employee Satisfaction-Customer Satisfaction

Silvestro (2002, p. 33) noted that ‘in the service literature, awareness of the ways in which employees can directly impact upon customer perceptions of the service has led to general acceptance of what Heskett et al. (1997) refer to as the ‘satisfaction mirror’’. This implies that employee satisfaction is reflected in terms of customer satisfaction (Heskett et al., 1997). Pugh (2001, p. 1020) suggested that ‘customers when exposed to the emotional displays of employees, experience corresponding changes in their own affective state’. The work climate literature also stresses the concept of emotional cognition which parallels the ‘satisfaction mirror’ concept. Howard and Gengler (2001) and Barger and Grandey (2006) indicated that emotional cognition attempts to explain how emotions are transmitted between people.

Along with the general acceptance in the literature for the link between employee satisfaction and customer satisfaction, there has been some empirical support (Wiley, 1991, Schneider and Bowen, 1993). Homburg and Stock (2004) found that employee's job satisfaction positively influenced customer satisfaction in a B2B context. The following hypothesis was developed,

H2 Employee Satisfaction positively influences Customer Satisfaction

Link: Employee Loyalty- Customer Satisfaction

Rust et al. (1996) noted that employees who stay in their jobs develop relationships with customers and that these relationships lay a foundation for a cycle of positive interactions between employees and customers (Schlesinger and Heskett, 1991, Heskett et al., 1994, Wallace and De Chernatony, 2009). 'Employees who perceive relationships with customers provide better service. Customers who receive better service express fewer complaints and thereby create fewer problems for employees. Employees in turn react more favourably to encounters with customers. These reactions result in better service which again leads to higher customer satisfaction' (Rust et al., 1996, p.63).

Rust et al. (1996) concurred with Heskett et al.'s (1994, p. 167) proposed linkage that 'low employee turnover was found to be linked closely to high customer satisfaction'. Wallace and De Chernatony (2009) agreed and suggested that committed employees stay with the organisation and their retention results in customer satisfaction. The following hypothesis was proposed.

H3 Employee Loyalty positively influences Customer Satisfaction

Link: Employee Loyalty- Service Quality

As noted a direct link between employee loyalty and customer satisfaction has been generally accepted within the literature. However service quality has been noted to precede customer satisfaction. According to Heskett et al. (1997) and Loveman (1998) employee loyalty impacts service quality. Empirical evidence to support a link between employees experience with their work environment and customers evaluations of the service quality have been found (Schneider and Bowen, 1985, Schneider et al., 1980, Schneider et al., 1998, Schneider, 1990, Schneider et al., 2000). Dean (2004) indicated that it is the positive environment for employees that can lead to perceived service quality for the customer. In his research on the SPC Loveman (1998) did not measure service quality due to data constraints but suggested employee loyalty played a vital role in service quality. The following hypothesis was developed.

H4 Employee Loyalty positively influences Service Quality

Link: Service Quality- Customer Satisfaction

Bitner (1990) noted that originally it was proposed that customer satisfaction preceded service quality. However, due to past empirical and conceptual work it is now widely accepted that service quality precedes customer satisfaction (Anderson et al., 1994, Heskett et al., 1997, Cronin Jr et al., 2000, Brady and Robertson, 2001,

Pollack, 2009). Lazarus (1982) suggested in his appraisal-emotional response framework that cognitive appraisal occurs prior to affective appraisal. As previously discussed service quality is considered to be cognitively orientated whilst customer satisfaction is considered to be both cognitive and affective.

In line with the idea that the more cognitive construct (service quality) should precede the more affective (customer satisfaction) construct (Brady and Robertson, 2001) and from the SPC line of thought (Heskett et al., 1994), the following hypothesis was developed.

H5 Service Quality positively influences Customer Satisfaction

Employee perceptions of service quality are not being examined as objective one relates to examining the links in the SPC. The SPC suggests that service quality influences customer satisfaction and does not suggest that service quality influences employee satisfaction. Therefore the employee perspective of service quality is not being examined.

Link: Customer Satisfaction-Customer Loyalty

It is generally acknowledged and accepted that customers who are satisfied with a service will return and repeat purchase. There is an overlap between the servicescape literature and the SPC framework relating to satisfaction and loyalty. The servicescape literature suggests that the physical environment affects satisfaction which can influence desire to return. Donovan and Rossiter (1982) found empirical

evidence that customers' pleasure feeling, derived from the physical environment, influences customers' likelihood to return. Wakefield and Blodgett (1996, p. 52) noted that 'satisfaction with the servicescape was found to have a positive effect on customers' repatronage intentions'. Whilst Heskett et al. (1994) SPC framework proposed that customer satisfaction drives customer loyalty. In his study Hallowell (1996) found empirical research supporting the relationship between customer satisfaction and customer loyalty. Both literatures suggest that satisfaction effects loyalty. Both attitudinal loyalty and behavioural loyalty will be examined. From this the following hypotheses were developed.

H6a Customer Satisfaction positively influences Customer Loyalty Attitudinal

H6b Customer Satisfaction positively influences Customer Loyalty Behavioural

Link: Customer Loyalty-Financial Performance

Gelade and Young (2005, p. 5) noted that within the literature there is a 'general conception of a link between customer satisfaction and financial performance'. Wiley (1991, p. 117) concurred and noted that 'from a marketing perspective, providing high levels of customer satisfaction is a key mechanism for the guarantee of customer retention' and from a 'financial performance perspective achieving high levels of customer satisfaction is seen as a natural and logical means for increasing' financial performance.

Hallowell (1996) found, through quantitative research, that customer satisfaction is related to profit through customer loyalty. Anderson and Mittel (2000) pointed out that customers become profitable over time by becoming loyal to the store. However, Heskett et al. (1994) provided little empirical research and Silvestro and Cross (2000) suggested that more research is needed. Schneider et al. (2009) also indicated that the role of customer satisfaction as a mediator between service climates and financial outcomes has not been formally proposed or tested. The following hypotheses were developed.

H7a Customer Loyalty Attitudinal positively influences Financial Performance

H7b Customer Loyalty Behavioural positively influences Financial Performance

Link: Employee Loyalty-Financial Performance

Chi and Gursoy (2009) indicated that similar to the link between customers and financial performance, the same holds true for employees. Retention of employees achieves a better financial performance due to a decrease in costs (Green and Tsitsianis, 2005, Hsu and Wang, 2008). However, findings of this link have been mixed. Chi and Gursoy (2009) found no direct link but indicated that the relationship between employee loyalty and financial performance is mediated by customer satisfaction. Loveman (1998) indicated that further research is needed to examine the relationship. From the literature the following hypothesis was proposed.

H8 Employee Loyalty positively influences Financial Performance

5.4.3 Research Objective 2

The second objective is to evaluate the relationship between the environmental stimuli and service quality.

Within the literature elements of the environmental stimuli have been incorporated into the service quality dimension (Brady and Cronin Jr, 2001, Pollack, 2009). However Baker et al. (1994), Reimer and Kuehn (2005) and Hooper et al. (2013) found support that environmental stimuli are an antecedent to service quality. There is considerable support for the association between environmental stimuli and service quality. Bitner (1992), Spangenberg et al. (1996) and Reimer and Kuehn (2005) all considered the influence of the environmental stimuli on customers' evaluations. Due to services being intangible the customer often needs to be present, and the surrounding environmental stimuli can have a significant influence on perceptions of the overall quality of the service encounter (Bitner, 1992). The following hypothesis was developed:

H9 Environmental Stimuli positively influences Service Quality

5.4.4 Research Objective 3

The third objective is to assess the link between environmental stimuli and the emotional responses of customers and employees. This is broken into two aspects. The first is the link between environmental stimuli and customer satisfaction/employee satisfaction, which contains an affective component. The

second concerns emotions themselves and their links to environmental stimuli and customer satisfaction/employee satisfaction.

Environmental Stimuli-Customer Satisfaction/Employee Satisfaction

Bitner's (1992) framework suggested that the servicescape can affect customer responses, such as satisfaction. However the empirical evidence on the servicescape, as a whole, impacting responses is surprisingly scant though a number of authors have attempted to examine the link between elements of the environmental stimuli and customer satisfaction (Wakefield and Blodgett, 1994, Wakefield and Blodgett, 1996, Hightower et al., 2002, Wu and Liang, 2009). The first of these was Wakefield and Blodgett (1994) who conducted an experimental study on students' perceived satisfaction of a sports stadium. This study was limited due to students' satisfaction with the servicescape being measured rather than developing a measure for the servicescape itself. In their later study, Wakefield and Blodgett (1996) addressed this limitation and developed a measure for the servicescape and conducted field research.

However, they did not look at the entire servicescape but rather the layout, facility aesthetics, seating, electronic equipment and cleanliness of the environment. They found that servicescapes are important determinants of customer behavioural intentions. Hightower et al. (2002, p. 703) concurred and found that the 'servicescape does have a significant influence on consumer behavioral intentions'. They also noted that the physical environment has a positive and significant influence on

positive affect, which they found to be directly related to behavioural intentions. The following hypothesis was developed:

H10a Environmental Stimuli positively influences Customer Satisfaction

Similarly to customer responses, Bitner (1992) suggested that the servicescape can affect employee responses, such as employee satisfaction. Davis (1984) indicated that organisations' facilities can also influence employee behaviour. Similarly to customer satisfaction, employee satisfaction can be influenced by the environmental stimuli. Parish et al. (2008) found that the design of the facility in which employees work influence their job satisfaction. The following hypothesis was developed:

H10b Environmental Stimuli positively influences Employee Satisfaction

Environmental Stimuli- PAD

Previous research assumes that emotions can be caused by exposure to specific environmental stimuli, which may result in a behavioural response. As noted, this is based on the Mehrabian and Russell (1974) model which focuses on three emotional states: Pleasure, Arousal and Dominance (Mehrabian and Russell, 1974). In their research, Donovan and Rossiter (1982) found that the atmosphere can create a pleasurable environment for the customer and Wakefield and Blodgett (1994) found that the environmental stimuli directly and positively affect excitement. Similarly, in a later study of a sporting venue Hightower et al. (2002) found support for the relationship between the physical environment and customers emotional responses.

Spies et al (1997) found that customers' mood improved in a pleasing environment and deteriorated in the less pleasant environment. Aubert-Gamet (1997, p. 27) indicated that the components of the environmental stimuli 'affect the emotional state of individuals and therefore their behaviour'.

Based on the environmental psychology literature, Kim and Moon's (2009) research explored the relationship between environmental stimuli, customers' emotions and behavioural intentions. In particular, they highlighted the role Pleasure-feeling played in understanding the impact of environmental stimuli on behavioural intentions. Kim and Moon (2009) found that environmental stimuli directly influences customer emotions. In particular, they indicated that the environmental stimuli would positively affect customer's pleasure feeling. Kim and Moon (2009) suggested that further research should be carried out examining all three affective components, Pleasure, Arousal and Dominance. From the literature this link in the model is identified as environmental stimuli affecting emotional responses of both employees and customers. The following hypotheses were developed:

H11a Environmental Stimuli positively influences the Emotional Response of Pleasure for Customers/Employees

H11b Environmental Stimuli positively influences the Emotional Response of Arousal for Customers/Employees

H11c Environmental Stimuli positively influences the Emotional Response of Dominance for Customers/Employees

PAD-Customer Satisfaction

Wirtz and Bateson (1999) suggested that Pleasure played an important role in understanding satisfaction. Bigné et al. (2005) agreed and proposed that the Pleasure and Arousal dimension positively influenced visitor satisfaction. From their findings Foxall and Greenley (1999) showed that Pleasure, Arousal and Dominance explain customer's verbal expressions of approach-avoidance. Due to its lack of usage within the literature, Foxall and Greenley (1999) highlighted the role of the Dominance dimension. More recently Newman (2007) found that Dominance is beneficial as a measure of affective responses. In line with previous research, that emotion positively impacts satisfaction, the following hypotheses were developed:

H12a The Pleasure dimension positively influences Customer Satisfaction.

H12b The Arousal dimension positively influences Customer Satisfaction.

H12c The Dominance dimension positively influences Customer Satisfaction.

PAD-Employee Satisfaction

Bagozzi et al. (1999) noted that we know much less about the role of emotions in marketing behaviour compared with behavioural decision research and what we do know is confined to consumer behaviour, as opposed to the behaviour of salespeople or managers. Foxall and Greenley (1999) pointed out that the failure to find a role for Dominance might be due to the narrow range of customer settings used in past

studies. It could also be that employees may have more control over their environment than customers and that Dominance may be a more important dimension for understanding employee satisfaction. It would appear in the literature that the Dominance dimension has not been examined in understanding employee satisfaction. Based on the customer satisfaction literature and the need to understand emotions and the role they play in employee satisfaction, the following hypotheses were developed;

H13a The Pleasure dimension positively influences Employee Satisfaction.

H13b The Arousal dimension positively influences Employee Satisfaction.

H13c The Dominance dimension positively influences Employee Satisfaction.

5.5 Control Variables

The observed variables are represented in the model as controls. For this research three types of questionnaires were administered. Similarly to Kantabutra (2011) and Lichtenstein et al. (2010), separate questionnaires were used for the managers, employees and customers. All three types of respondents were asked age and gender, in order to gauge the demographic characteristics of the sample. Similar to previous research, employees were asked time in job and full/part time position (Carlopio, 1996, Gelade and Young, 2005) and the managers of the store were asked all control variables. Size of store was controlled for because smaller stores may provide the opportunity for more intimate relationships (Dietz et al., 2004). Location was controlled for because different dynamics could occur in rural or urban locations

(Dietz et al., 2004). Date of last refurbishment is a particularly important control variable as it relates to the environmental stimuli and this is an important variable in the model. Figure 5.2 shows the model with the hypotheses and control variables.

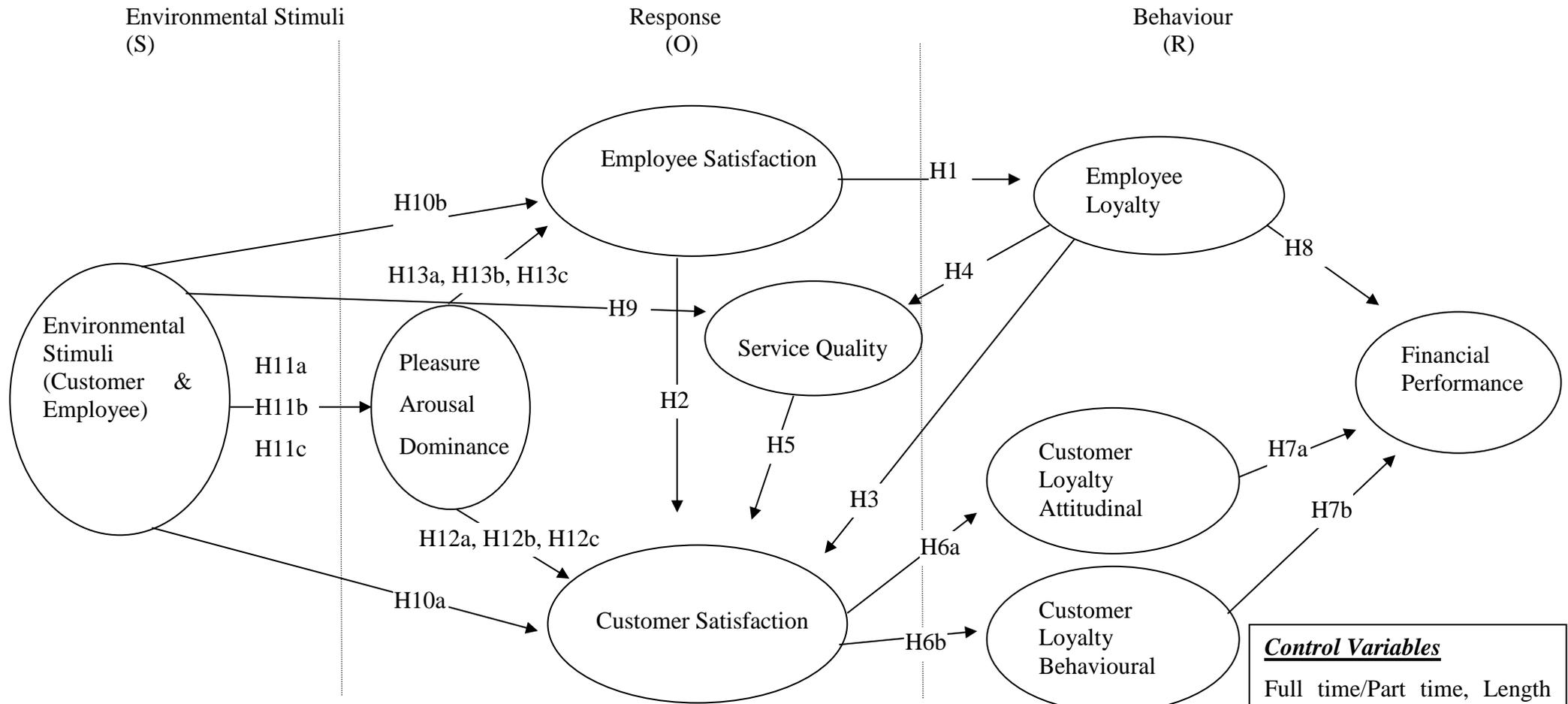


Figure 5.2 Proposed Model with Hypothesis and Controls

Control Variables
 Full time/Part time, Length of time Working, Store Location, Date of Last Refurbishment, Size of Store, Age/Gender of Employee, Day of the Week

5.6 Research Plan

As previously mentioned, data was collected from customers, employees and managers in order to meet the aim and objectives of this research. Objective one relates to the SPC and linking employee and customer responses. In order to meet this objective dyadic data was collected. This is where data is collected from both sides of a dyad (Homburg and Stock, 2004). In order to collect dyadic data and for all the research objectives to be investigated, a field study was chosen. Research collected in real settings are called field studies and many authors in this area have chosen a field study approach for collecting data (Yalch and Spangenberg, 1993, Herrington and Capella, 1996, Foxall and Greanley, 1999, Hightower et al., 2002, Bigné et al., 2005, Newman, 2007). This differs from laboratory research where the environment is an artificial setting constructed by the researcher to their desired set of conditions which is a feature of studies in this area also (Wirtz et al., 2000, Gilboa and Rafaeli, 2003, Mattila and Wirtz, 2006).

In order to ensure that valuable data is collected from the field research, a research plan was drawn up. This allowed for data to be screened ensuring data was useful, reliable and valid for testing the relationships. Babin et al. (2003) defined their population, picked a sample size, choose a sample, and decided on a technique to use to collect the data. Donovan et al. (1994), Chebat et al. (2001), Reimer and Kuehn, (2005) and Homburg et al. (2009) all followed a similar research plan. This research plan provided a clear strategy and was used in this research.

5.6.1 Field Study

Essential to this research was that all respondents were asked to fill out the questionnaire within the store, or as close as possible to the store after existing. This ensured that the respondents experienced the service environment of actual market conditions. Wakefield and Blodgett (1996, p. 50) indicated that ‘subjects are in a position to observe and experience the servicescape directly and to offer more valid responses’ if surveyed inside the service encounter. In conducting field research for this study it is important that the respondents have the stores atmosphere fresh in their minds. Donovan and Rossiter (1982, p. 35) indicated that ‘store atmosphere effects are basically emotional states that are difficult to recall’. Bigné et al. (2005) concurred and pointed out that it is the stimulus itself that evokes emotions.

To overcome the difficulty of trying to recall the stores atmosphere Machleit and Eroglu (2000) collected the data immediately after the customer had finished their shopping. This process was similar to Bigné et al. (2005) study on tourism attraction and on Wakefield and Blodgett (1996) study on consumer’s behavioural intentions in leisure service experiences. Customers were asked to fill out the questionnaire immediately after finishing their shopping. Employees were asked to fill out the questionnaire at the end of their shift on the same day that the customers filled out their questionnaire. By filling out the questionnaire on the same day both respondents have the ability to experience the same environmental stimuli that creates the atmosphere. Furthermore, this allowed for the fluid collection and coding of the dyadic data, data that can often be problematic to gather.

5.6.2 Dyadic Data

Dyadic data is when data is collected from both sides of a dyad (Homburg and Stock, 2004). In this research customer satisfaction is based on customer's responses and employee satisfaction is based on employee's responses. Past research frequently collected from only one source and this could have led to common method bias. For example, asking employees to rate customer satisfaction with their service can be problematic; if employees are highly satisfied themselves they might rate customers satisfaction higher (Homburg and Stock, 2004).

Difficulties can arise from collecting dyadic data (Homburg et al., 2009). Homburg and Stock (2004) noted that in their approach of collecting dyadic data that they may have brought about a systematic bias by asking employees to choose their customers. To overcome this systematic bias customers were chosen at random by the researcher in this research. If the customer agreed to fill out the questionnaire the researcher took note on their questionnaire which till operator they used. The key to overcoming the difficulty in collecting dyadic data is to match customers with the employees correctly. Homburg et al. (2009, p. 45) noted that 'with respect to the employee-customer link interviews assigned the customers to the respective employees code number'.

In order to maintain consistency throughout the stores in the collection for the dyadic data, the following procedure took place. At the start of the day each till operator was given an assigned number. This number was written on to their questionnaire. This number was also written in large writing at the till they sat at. If the employee

moved till, they took their large hand written number with them and placed it on their new till. When the customer agreed to answer the questionnaire, they were asked the number of the till they were at. The researcher double checked this number and wrote it on the questionnaire before handing it to the customer. In doing so, the researcher was able to match customers with the corresponding till operator that served them.

5.6.3 Sample Type

In relation to the nature of the sample, the research participants should provide a real world setting of interest (Calder et al., 1981). Calder et al. (1981, p. 199) indicated that this is completed by ‘carefully defining the relevant population for effects of interest’ and having a representative sample of individuals from this target population’. This research examines grocery retail stores in Ireland. Grocery retail stores are utilitarian in nature; however customers do tend to spend more time in the grocery retail environment compared with other utilitarian environments such as dry-cleaners or petrol stations. Furthermore the level of target Arousal sought for customers in a retail setting would be considered low (Mattila and Wirtz, 2006). As customers spend a considerable time period in the grocery store yet have low target Arousal, it makes grocery retail stores a unique service environment to be examined.

Both males and females over the age of 18 were asked to take part in the research. The sample frame was those customers that were shopping on the day the research was being collected. Research was carried out on different days of the week to limit any research bias occurring. Employees completed their questionnaire on the same

day as the customers. To ensure that all respondents were part of the target market, some descriptive questions were asked. Machleit and Eroglu (2000) in their research asked respondents about their shopping intentions, how long they spent in store and the number of times previously shopped in the store. Similar questions were asked to the customer sample.

5.6.4 Sampling Method

As mentioned, data was collected from customers, employees and managers. Separate sampling methods were used for each of the three respondent types. All managers that were available on the day the stores were being investigated took part in the research. Justification sampling was used for the employees. Only employees that were working on the till for more than two hours were used in the research. This was done to ensure that there would be sufficient customers to ask to fill out the questionnaire. With regards to customers, initially justification sampling was used. This was the initial stage, as only customers who used the employees chosen for the research were asked. Systematic sampling was then used, with every 4th customer being asked to fill out the questionnaire. The majority of customers approached agreed to fill out the questionnaire. Those who refused generally cited pressures of time as the reason.

As mentioned, retail stores were chosen based on not only a key interest from the retail stores managers to investigate their atmospherics or the environmental stimuli but also due to the unique nature of a grocery retail environment. As customers spend a considerable time period in the grocery store it makes grocery retail stores a

unique service environment to be examined compared to other utilitarian environments such as petrol stations or dry cleaners.

5.6.5 Sample Size

According to Fabrigar (1999), researchers need to determine how large the sample should be and then look at how the sample would be selected from the population. The stores were chosen based on in depth discussions with the Head of retail operations of a Grocery retail chain within Ireland. This grocery retailer gave access to each of these stores and is further considered in the managerial discussions which can be found in section 5.7.

At least one store manager from each store visited was administered a questionnaire. Depending on size of store, three to eight till operators were given questionnaires along with eight to ten customers per till operator. For a sample of 15 stores, this gave a minimum of 15 managers, between 45 to 120 till operators and between 360 to 1200 customers. Within the literature there are different views on how large a sample size should be (Fabrigar et al., 1999). In their research, Gracia et al. (2010) looked at 117 tourist units and collected questionnaires from 349 employees and 1,157 customers and examined five constructs within their proposed model. In collecting dyadic data, Homburg and Stock (2004) collected 164 dyadic cases, this consisting of one employee to two customers. Parish et al. (2008) had three rounds of data collection and collected 706 questionnaires. In their study, Chi and Gursoy (2009) collected 2023 employee questionnaires, 3346 customer questionnaires and

250 manager questionnaires. Gazzoli et al. (2010) collected 474 employee and 1,289 customers and 14 manager responses.

Generally it appears to be that the more variables there are the larger the sample size should be. The proposed model consists of seven constructs and some constructs will most probably contain sub-factors. However Fabrigar (1999, p. 274) indicated that ‘adequate sample size is not a function of the number of measure variables per se but is instead influenced by the extent to which factors are over determined and the level of the communalities of the measured variables’. Gazzoli et al. (2010) concurred and recognised that their large sample size could influence the model fit and reliability testing. Bagozzi and Yi (2012, p. 34) highlighted that ‘because the χ^2 is sensitive to sample size, it becomes difficult to achieve satisfactory models fits as the sample size increases. As a result, researchers have proposed a number of indexes of practical fit’. Model fit and reliability testing will be looked at under section 5.9.3, SEM: Stage 2, towards the end of this chapter.

5.7 Managerial Discussions

As mentioned, a predominantly positivist approach was taken for this research. However before the quantitative stage took place, qualitative research was carried out. This consisted of in-depth interviews with store managers, customers and with the head of retail operations for Ireland of a grocery retail chain that operates on a franchise basis. Before approaching the individual store managers, an email was sent out to the head of retail operations of the grocery chain, followed by several phone calls. The grocery retail chain was very interested in the research and a meeting was

set up with the head of retail operations. An in-depth meeting took place at the headquarters of the grocery chain. This discussion provided confirmation that there was a need for research in the proposed area. In particular it was highlighted by the head of retail operations that store design was crucial to further development of grocery retail stores. While this was a long and wide ranging discussion, the head of the retail operations requested that it not be recorded.

This informal meeting led to detailed discussions taking place regarding the nature of the research. The grocery chain was keen to investigate their franchised stores within the Dublin area and suggested that we contact stores that were based in the greater Dublin area. Inside store access was crucial to the main data collection stage, as research needed to be collected within the store environment due to environmental stimuli being difficult to recall (Bigné et al., 2005). Before contacting each of the franchised stores, the head of store development examined the initial proposed questionnaire and gave feedback regarding some of the questions. This also gave insight into the nature of the grocery industry.

Due to the store being franchised, each individual store was contacted. 15 stores were chosen based on geographical location, type of store and size of store. Having stores from the same geographical location limited the impact of differences in terms of management style and labour markets (Silvestro and Cross, 2000). In their research, Silvestro and Cross (2000, p. 249) gained access to 15 stores and as it was a large supermarket chain they suggested ‘the stores have a strong corporate image, with similar layouts and overall appearance, thus the stores are broadly comparable in terms of service provision and service levels’. The same holds true for this grocery

retail chain, which maintains very tight control over the store layout and product range.

The retail grocery main office passed on a list of the stores, their managers, email addresses and contact numbers. Four of the stores were owned by the same person and it was particularly important to have them taking part in the research, as the sample would be greatly reduced if they did not. Each of the stores were sent an email regarding the nature of the research and that the main researcher would be in contact with them shortly afterwards. Within the email, it was explained that the grocery main office had passed on their details and indicated that they might be interested in the research. Appendix 2 provides a copy of the email. Having sent an email to each of the stores, a follow up phone call was arranged with each of the store managers. An informal phone conversation took place with the managers of the stores and 15 stores were happy to take part in the research.

Having confirmed 15 stores were willing to take part, a research time frame for the data collection was worked out with each of the managers of the stores. Research took place in March/April 2011, during a three week time period. In order to collect the data as effectively as possible within the short timeframe, a research team was used. This research team consisted of six individuals who were trained to administer the questionnaire, correctly collect the dyadic data using the above mentioned procedure, and were given insight into the aims of the research. Out of the 15 stores that data was collected from, the main researcher was present at 14 of them. After the data was collected, a letter was sent out to each of the stores thanking them for their help. See appendix 3 for a copy of the letter.

5.7.1 Manager and Customer Interviews

Having confirmed that research would be insightful to the grocery retail chain, interviews were set up with managers of several of the chains grocery stores. In order to accomplish the principal objectives of the research, semi structured interviews were used. In their research, Heide et al. (2009) conducted interviews based on a carefully developed interview guide, which included topics relating to company, individual, atmosphere, design and human elements. Similarly for this research, the interview guide was carefully thought out and topics were chosen based on the relevant constructs that were being examined. See appendix 4a for the interview topic guide for the managers. Before having the interviews with the managers, they were sent a pilot copy of the customer questionnaire, the employee questionnaire and manager questionnaire to have a look at and discuss at the interview. Notes were taken and the interviews were recorded. Interviews were carried out with four managers of the grocery retail chain franchise. One of those that was interviewed worked at a store that belonged to the group that had four franchises. This was particular insightful as the discussion ranged across the four stores.

Similarly to Homburg et al. (2009), interviews were conducted to form a better basis for the questionnaire. In using semi structured interviews information was gained that was relevant to the quantitative stage of the research. The objectives of the semi structured interview were threefold. Firstly, it allowed gaining insight and understanding of the most appropriate terminology to use in the survey. Kenhove and Desrumaux (1997) conducted interviews to collect relevant environmental items

for their questionnaire. From the literature and their qualitative research they were able to choose the most relevant items for their questionnaire. Homburg and Stock (2004) followed the same process. Secondly, to identify the most important areas for further research, any new items or constructs that were considered important by managers to the research would be reviewed in the literature. Thirdly, to identify and obtain feedback on the reactions to the questions being asked. These three objectives helped form a robust basis for the questionnaire development. In particular the financial measure was adapted to suit the needs of the managers. This was done in order for them to feel comfortable in answering financial data about their store.

Four customers were interviewed in order to gain insight into their reactions to the questions and to determine the most relevant terminology. Customers were contacted by phone and similarly to managers a topic guide was used, as per appendix 4b. Customers were sent a copy of the proposed pilot customer questionnaire before the interview for them to have a look at. In their research, Newman et al. (2007) adapted questions based on suggestions that some of the terminology was outdated. Based on the interviews with both managers and customers, some wording was changed to the pilot questionnaire before it was tested. For example, some past research was based on restaurants (Harris and Ezeh, 2008, Kim and Moon, 2009) whilst other research used the term 'shops' (Hightower et al., 2002) or 'this facility' (Wakefield and Blodget, 1994). In order to maintain consistency, the primary word used was shops. The following section identifies the literature used in developing the questionnaire for the initial pilot stage.

5.8 Questionnaire Development

Similar to Bigne et al. (2005) research, the classification questions relating to demographic variables and the grocery store, together with multiple-item scales of the different constructs dealt with in the proposed conceptual model (environmental stimuli, emotions, customer/employee satisfaction and behavioural intentions), were included in the questionnaire. The multiple item scales used questions that are in the form of a statement. For example ‘the music in the store is played at an appropriate volume’. Similarly to past research a Likert scale was used for respondents to evaluate their degree of agreement with each of the statements (Baker et al., 1994, Brady and Cronin Jr, 2001, Dietz et al., 2004, Hu and Jasper, 2010). In their research, Parish et al. (2008) used a 7 point Likert scale. This research also used a 7 point Likert scale. This allowed for the questions to be coded appropriately for the analysis stage. PAD was measured with semantic differential scaling because based on past research (Mehrabian and Russell, 1974, Donovan and Rossiter, 1982, Foxall and Greanley, 1999, Newman, 2007) this was the most appropriate scale to use and could be coded appropriately for the analysis stage. Similarly to Funk and Ndubisi (2006) and Parish et al. (2008) the questionnaire items were adapted from past studies and fine-tuned to suit this study’s objectives. Each of the items for each of the construct will be looked at next. Some of the questions are highlighted in red and this will be discussed in the pilot questionnaire subsection.

5.8.1 Environmental Stimuli

Numerous studies have considered environmental stimuli to be multidimensional (Davis, 1984, Bitner, 1992, Areni and Kim, 1994, Aubert-Gamet, 1997, Hightower et al., 2002, Reimer and Kuehn, 2005, Chebat and Morin, 2007, Morin et al., 2007, Ryu and Jang, 2007, Parish et al., 2008, Kim and Moon, 2009, Lin and Worthley, 2012, Hooper et al., 2013). Each of the items relating to environmental stimuli can be seen in table 5.1. Many items were adapted from different authors due to no single study having examined all items. The aim was to have a minimum of three items per sub dimension in keeping with the best practice in SEM studies.

| Construct | Literature | Items |
|--|--|---|
| Environmental stimuli (Music) | Adapted from Harris and Ezeh (2008). | Q. The music played in the store is appropriate. Q. The music in the store is played at an appropriate volume. Q. The music played in the store is pleasant. Q. The music played in the store is not pleasant (R)* |
| Environmental stimuli (Design & Signage)** | Kim and Moon (2009) <i>Items in italics adapted from Jang and Namkung (2009)</i> Items in bold adapted from Hightower et al. (2002) | Q. This store is decorated in an attractive fashion. Q. The interior décor of this store is attractive. <i>Q. The interior design is visually appealing.</i> Q. The materials used inside the store are pleasing and of high quality. Q. The style of the interior accessories is fashionable. |
| Environmental stimuli (Layout) | Brady and Cronin Jr (2001) and Pollack (2009). <i>Kim and Moon (2009).</i> | Q. This service provider's layout never fails to impress me. Q. This stores layout serves my purpose Q. The store understands that the design of its facility is important to me. <i>Q. In this store, the aisles between the shelves are wide enough to pass through easily.</i> <i>Q. The signs in this store environment provide adequate direction.</i> |

| | | |
|-------------------------------------|---|--|
| | | <i>Q. It is easy to walk around this store and find what you are looking for.</i> |
| Environmental stimuli (Cleanliness) | Harris and Ezeh (2008). <i>Wakefield and Blodgett (1996)</i> | Q. The store is kept clean. Q. The store has clean walkways and exits. Q. The store has clean toilets.*** Q. The store is not kept clean (R). <i>Q. This facility maintains clean food service areas</i> |
| Environmental stimuli (Colour)** | Jang and Namkung (2009) <i>Hightower et al. (2002)</i> Kim and Moon (2009) | Q. Colours used create a pleasant atmosphere <i>Q. The colour scheme in the store is attractive.</i> Q. The use of colour in the decor scheme adds excitement to this store environment |
| Environmental stimuli (Lighting) ** | Kim and Moon (2009) <i>Jang and Namkung (2009)</i> Hightower et al. (2002) | Q. The overall lighting level in this store environment is appropriate. <i>Q. Lighting creates a comfortable atmosphere</i> Q. The lighting is excellent at the store |
| Environmental stimuli (Olfaction)** | Harris and Ezeh (2008) <i>Kim and Moon (2009)</i> Hightower et al. (2002) | Q. The aroma in the store is inappropriate (R). Q. The aroma in the store is fitting. <i>Q. The aroma in this store is pleasant.</i> Q. The store has a pleasant smell. |

Table 5.1 Environmental Stimuli Items

* (R) item is reverse coded.

** Colour, Lighting, Olfaction and Design&Signage tend to be looked at within an overall concept called atmospherics or facility design or ambient (Hightower et al., 2002, Jang and Namkung, 2009, Kim and Moon, 2009).

*** Indicated the item was only asked to employees. Toilet was not accessible for the customers.

5.8.2 PAD

Mehrabian and Russell's (1974) 18 item scale formed the basis for this research. This scale has been used by many authors in past research (McGoldrick and Pieros, 1998, Newman, 2007, Ryu and Jang, 2007, Jang and Namkung, 2009, Hu and Jasper, 2010). In his research, Newman (2007) looked at Pleasure, Arousal and Dominance. As noted in Chapter 2, previous research has largely ignored the Dominance dimension. Newman (2007) suggested that there were necessary adjustments needed for the scale. Newman (2007) altered the wording of some of the variables to be more suited to today. The * beside a word indicated that the wording of the item was changed by Newman (2007). The original wording from Mehrabian and Russell (1974) study is written in the brackets. A scale of 1 to 7 was used and the number closest to the adjective that best described the individual's feelings with regard to visiting or working in the store was chosen using a semantic differential scale. The following adjectives were chosen for each of the PAD dimensions. The questions were asked to both the customers and employees. Table 5.2 identifies the Pleasure items.

| Pleasure | |
|--------------------------|-----------------------|
| Happy | Unhappy |
| Pleased | Frustrated* (Annoyed) |
| Unsatisfied | Satisfied |
| *Depressed (Melancholic) | Contented |
| Hopeful | Despairing |

Table 5.2 Pleasure

Table 5.3 identifies the Arousal items. In their research Mehrabian and Russell (1974) used Jittery-Dull, Frenzied-Sluggish and Aroused –Unaroused. According to Newman (2007) the items used in his research coincide with the originally Arousal dimensions.

| Arousal | |
|-------------------------|-------------|
| *Unstimulated (Relaxed) | Stimulated |
| Calm | Excited |
| Sleepy | Wide Awake |
| *Lethargic | *Frantic |
| *Gloomy | *Fidgety |
| *Uncrowded | *Jam-packed |

Table 5.3 Arousal

Table 5.4 identifies the Dominance items used. The items that are written in italics were not used by Newman (2007) in his study but are identified by Mehrabian and Russell (1974).

| Dominance | |
|------------------------|---------------------------|
| Guided | Independent* (Autonomous) |
| *Restricted (Dominant) | Free to act* (Submissive) |
| Controlled | In-control* (Controlling) |
| <i>Influentia</i> | <i>Influenced</i> |
| <i>In control</i> | <i>Cared for</i> |

Table 5.4 Dominance

In Newman’s (2007) study, two Dominance items appeared to overlap with both a Pleasure item and with an Arousal item. These are represented in Table 5.5. As the Dominance dimension is an important dimension for this research, it was considered important to add all relevant Dominance items to the survey.

| | |
|-------------------------------|-----------|
| Dominance and Pleasure | |
| Bored | Relaxed |
| Dominance and Arousal | |
| *Unimportant (Awed) | Important |

Table 5.5 Dominance Overlap

5.8.3 SPC

The SPC takes into consideration the following concepts, service quality, customer satisfaction, employee satisfaction, customer loyalty and employee loyalty. Service quality, customer satisfaction, customer attitudinal loyalty and customer behavioural loyalty were examined on the customer questionnaire as per table 5.6. Customer loyalty can be measured as behavioural loyalty or attitudinal loyalty. Past research generally focuses on one or the other (Dick and Basu, 1994, Zeithaml et al., 1996, Chen et al., 2009). Oliver (1999) indicated that in order to detect customer loyalty both attitudinal and behavioural should be researched. This questionnaire asked customers both. Similarly to customers, employees were also asked about their satisfaction and loyalty as per table 5.7. Due to service quality being a large construct, this is in a separate table, as per 5.8

| Construct | Literature | Items |
|-------------------------------|---|---|
| Customer satisfaction* | Adapted from Dietz et al. (2004) | <p>Q. How satisfied are you with the service you receive from employee at the supermarket in terms of...</p> <p>Q. Providing fast service.</p> <p>Q. Courtesy and friendliness.</p> <p>Q. Accuracy of service.</p> <p>Q. Willingness to help.</p> <p>Q. Making you feel secure about your transactions.</p> <p>Q. Showing sincere interest in your questions or problems.</p> <p>Q. Resolving problems quickly.</p> |
| Customer Attitudinal Loyalty* | Dick and Basu (1994) and Chen et al. (2009). | <p>Q. I am a loyal customer of this store</p> <p>Q. This store is the first choice for me among the same types of stores</p> <p>Q. If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here</p> |
| Customer Behavioural Loyalty* | Zeithaml et al. (1996) and Harris and Ezeh (2008) | <p>Q. Say positive things about the store to other people</p> <p>Q. Recommend the store to someone who seeks your advice.</p> <p>Q. Encourage friends to do business with the store</p> <p>Q. Encourage relatives to do business with the store</p> <p>Q. Consider the store your first choice to buy services.</p> <p>Q. Do more business with the store in the next few months</p> |

Table 5.6 Customer constructs except for Service Quality

| Construct | Literature | Items |
|------------------------|--|---|
| Employee Loyalty* | Adapted from Paulin et al. (2006). <i>Items in italics adapted from Currivan (1999)</i> | Q. Most of the time I am willing to put in extra effort so that the store remains a leading store Q. I feel proud to work at this store Q. I would turn down a job with comparable pay and career prospects to stay at this store <i>Q. I care about the fate of the shop in which I work</i> <i>Q. I speak highly of the shop in which I work to my friends</i> |
| Employee Satisfaction* | Homburg and Stock (2004). <i>Homburg et al. (2009).</i> | Q. Generally speaking, I am very satisfied with this job Q. I do not intend to work for a different company Q. I like my job Q. There are no fundamental things I dislike about my job. Q. I like my job more than many employees of other companies Q. I consider this employer as first choice <i>Q. I am generally satisfied with the kind of work I do in this job</i> <i>Q. I frequently think of quitting this job</i> |

Table 5.7 Employee Constructs

5.8.4 Service Quality

The customers were asked about the service quality that they received, as per table

5.8

| Construct | Literature | items |
|-----------------|---|--|
| Service Quality | <p>Adapted from Baker et al. (1994b).</p> <p><i>Items in italics added in from Hu and Jasper (2010).</i></p> <p>Items in bold adapted from Brady and Cronin (2001), Sirohi et al. (1998) and Chen et al. (2009)</p> <p><i>Items in bold and italics adapted from Brady and Cronin (2001)</i></p> | <p>Q. Customers are treated well.</p> <p>Q. Employees are willing to help customers.</p> <p>Q. Employees give personal attention.</p> <p>Q. Employees are not too busy to respond.</p> <p><i>Q. The store has fast check-out.</i></p> <p>Q. In comparison to other stores, the arrangement of this store interior decorations is better</p> <p>Q. In comparison to other stores, the design of this store's interior shopping path is better</p> <p>Q. In comparison to other stores, the design of this stores ambient light is better</p> <p>Q. In comparison to other stores, the space of this store's internal paths is more spacious</p> <p>Q. In comparison to other stores, the design of this store's checkout counters is better</p> <p>Q. In comparison to other stores, the design of this store's external environment is better</p> <p><i>Q. I believe the store offers excellent service.</i></p> <p><i>Q. The store offers high-quality service.</i></p> |

Table 5.8 Service Quality

5.8.5 Financial Performance

Having reviewed the SPC and services literature and the several measurements used to examine the financial performance link (Anderson, 1994, Schneider, 2003, Gelade and Young, 2005, Schneider et al., 2005, Maxham et al. 2008, Chi and Gursev, 2009, Sheng et al. 2011), it was deemed appropriate to discuss with managers their level of sincerity regarding the financial performance indicator. Having discussed with managers during the interview stage, the following questions were adopted from Sheng et al (2011) and Schneider (2003). They were adapted to a Likert scale of 1-7. Managers had indicated that they would not be willing to give actual figures. They

suggested an alternative Likert type question that they felt was more suited. A Likert scale was developed based on their recommendations and from previous literature examining the financial performance link within the services literature.

Q. The sales growth

Q. The market share

Q. The profit margin

Q. The average scanning margin for the store

Q. The average footfall of the store

‘The average footfall of the store’ question was developed from interviews with managers as they suggested this was an important factor to consider when discussing financial performance.

5.8.6 Control Variables

In order to carry out the analysis some control variables were needed. This allowed for each of the objectives to be met. As noted this research carried out three different surveys. These were collected from managers, till operators and customers. All three types of respondents were asked, age and gender, in order to gain demographic characteristics of the sample.

Q. Store location

Q. Please indicate your gender

Q. What age group do you belong too

Customer questionnaire

Customers were asked the following questions. This allowed for information to be gathered regarding customers shopping intentions. This helped with research objective one.

Q. How much did you spend in store today?

The above question was based on findings from the interview process. Customers were asked to tick a box.

These two questions were adapted from Machleit and Eroglu (2000):

Q. How long did you spend in the store?

Q. What was the shopping intention of your visit?

These two questions were adapted from Maxham et al. (2008):

Q How many times would you visit this store on a weekly basis?

Q What would be your average spend per visit?

The following question was asked in order to connect customers with the employees.

This is vital for the collection of dyadic data.

Q Which till operator did you use?

Employee questionnaire

Similar to previous research, employees, the till operators and managers, were asked time in job and full/part time position (Carlopio, 1996, Gelade and Young, 2005).

Q. Are you a full-time or part-time employee in this store?

Q. How many hours a week do you work?

Manager questionnaire

Q. How long have you been working for _____?

Q. How long have you been the store manager in this store?

Q. Did you work as a store manager before this store on behalf of _____? Yes/ No

Q. If Yes, How many years?

Q. Has the supermarket been refurbished in the last 5 years? Yes/No

Q. If Yes, when was it refurbished?

Q. If No, when was it opened?

Q. What is the number of full time employees working in this store

Q. What is the number of part-time employees working in this store

Having developed the questionnaire using existing scales from literature and from refining the wording through in-depth interviews with managers, the pilot questionnaire was administered.

5.8.7 Pilot Questionnaire

Before administrating the final questionnaire, it is beneficial to conduct a pilot questionnaire (Saunders et al., 1997, Jang and Namkung, 2009). This pilot testing phase is carried out in order to evaluate the questionnaire further. McKinney (2004) indicated that a pre-test can improve the content or the wording of a survey. Parish et al. (2008) concurred and indicated that asking bilingual speakers to review the survey to ensure that those who spoke English as their second language would understand the wording was also important. This survey was given to several bilingual speakers, French, German, Italian and Polish native speakers, to clarify the wording used.

The pilot survey was with two groups. One group was full time retail managers who were doing a part time postgraduate course; they completed the employee questionnaire using a paper based questionnaire. The second group were students who did their own shopping or were customers of grocery retail stores; they did the survey online. The survey was distributed to 600 students on undergraduate and postgraduate programmes. In all, 133 customer questionnaires and 61 employee questionnaires were collected. The profile of the respondents is 42% male and 58% female. 51% of the employees were aged 18-24, with the remaining 49% being 25-54. 63% of the customers were 18-24, the remaining 27% being 25 years and older.

Similarly to Hume and Mort (2010) and Mak and Sockel (2001), the pilot questionnaire was analysed using reliability testing and factor analysis. This was carried out to ensure the internal validity of the model constructs. In their pilot

survey, Wu and Liang (2009) eliminated questions based on respondents' suggestions and the item factor loading. Based on previous research, Newman et al. (2007), Harris and Ezeh (2008), Kim and Moon (2009), and given the size of the sample (n=133), a factor loading of .32 and below was considered to be poor, .4 significant, and loadings of .6 or greater as very significant. Similarly to Harris and Ezeh (2008), factors were only retained if they possessed an eigenvalue greater than 1. Cronbach alpha scores were computed on the factors to indicate the level of internal consistency and reliability (Harris and Ezeh, 2008). Slater (1995) argued that the most commonly reported measure of reliability is the Cronbach and that the usual criterion is 0.7 or above. The goal of the pilot data analysis was to verify the appropriateness of the items. This was in order to have a solid framework for the next stage of data collection.

Within the questionnaire development stage above, section 7, there were several items that were highlighted in red. The items highlighted in red were deleted from the final questionnaire. In total 8 items were deleted and these are addressed in table 5.9.

| Question | Item | Deletion |
|---|----------------------|---------------------------------|
| Q. The music played in the store is not pleasant (R)* | Music item | Crossloadings |
| Q. The style of the interior accessories is fashionable | Design& Signage item | Crossloadings |
| Q. The store is kept clean | Cleanliness item | Loading less than .4 |
| Q. The store has clean toilets. | Cleanliness item | Removed to maintain consistency |
| Q. The aroma in the store is inappropriate (R). | Olfaction item | Loading less than .4 |
| Q. The store has fast check-out. | Service Quality | Loading less than .4 |
| Q The space of this store's internal paths is more spacious | Service Quality | Crossloadings |
| Q. The design of this stores ambient light is better | Service Quality | Forming separate 1 item factor |

Table 5.9 Deleted Items

Three out of the eight items were deleted due to item loadings of less than .4. The music item had crossloadings with the Cleanliness factor and was deleted due to it being unreliable. The Design & Signage item was deleted as it was found to be unreliable and had crossloadings with the Cleanliness factor. 'The store had clean toilets' was only asked to employees as customers did not have access. For this research environmental stimuli impacting both customers and employees were being analysed. As customers did not examine this aspect of the service environment, it was removed from the final questionnaire.

The service quality item 'the space of this store's internal paths is more spacious' was found to be unreliable as it crossloaded across the two service quality factors that were found from the pilot study. The final item to be deleted was 'the design of this stores ambient light is better' as it did not relate to the service quality dimensions found.

Some of the key findings of the pilot are as follows. A four factor solution was found for the customer environmental stimuli construct. The four factors, along with their Cronbach alpha scores, were: Ambience (.869), Design & Colour (.820), Cleanliness (.763) and Layout (.755). Similarly a four factor solution was found for the employee environmental stimuli construct these were; Ambience (.926), Cleanliness (.771), Workspace (.802) and Music (.730). Significant differences were found across the factors; in particular Music was a separate factor for employees, whilst for customers music was part of the Ambience factor. The four factors found suggest that a difference exists in how the environment is perceived by customers and employees (Kearney et al, 2013). Using multiple regression, the effects of the customer environmental stimuli factors on customer satisfaction was tested. Similarly, the effects of the employee environmental stimuli factors on employee satisfaction were tested. Of particular interest was that the employee factor of ambience had a high significant effect on employee satisfaction (Kearney et al., 2013). For further analysis of the pilot research, please see Kearney et al. (2013).

In their research, Jang and Namkung (2009) gave the store managers the questionnaire to review before the questionnaire was finalised. These questionnaires were given to several managers of the retail chain being looked at before it was administered in the stores. Based on their recommendations, a further few minor wording and grammar changes were made. The final questionnaires used can be seen in appendices 5a, 5b and 5c.

5.9 Method of Analysis

As suggested by Anderson and Gerbing (1988), data was analysed using a two-step approach in which the measurement model was first confirmed and then the structural model was tested. Before analysing the data, the data needed to be cleaned.

5.9.1 Data Cleaning

Once the data has been appropriately collected, it needs to be cleaned or sometimes referred to as screened. This relates to dealing with missing data, normality of the data and outliers. This is a necessary first step to any analysis that is time consuming and often overlooked (Hair et al., 2010).

5.9.1.1 Missing Data

The analysis of data can be significantly affected by missing data (Schumacker and Lomax, 2004). Tabachnick and Fidell (2007, p. 62) indicated that ‘the pattern of missing data is more important than the amount of missing data.’ Data can be missing completely at random (MCAR), missing at random (MAR) or missing not at random (MNAR) (Tabachnik and Fidell, 2007). According to Tabachnick and Fidell (2007), having MCAR is the best possible missing data.

There are several ways to deal with missing data. If there are substantial amounts of missing data, data could be deleted. If the sample is large and missing values is small

you could estimate missing values. Schumacker and Lomax (2004) suggested several statistical options for dealing with missing data as per table 5.10 below.

| | |
|---------------------------|---|
| Listwise | Delete subjects with missing data on any variable |
| Pairwise | Delete subjects with missing data on only the two variable used |
| Mean Substitution | Substitute a mean value for missing values of a variable |
| Regression Imputation | Substitute a predicted value for the missing values of a variable |
| Maximum likelihood (EM) | Find expected value based on maximum likelihood parameter estimation |
| Matching Response Pattern | Match variables with incomplete data to variables with complete data to determine a missing value |

Table 5.10 Options for Dealing with Missing Data

Source: Schumacker and Lomax (2004, p. 25)

For SEM it has been recommended to use EM (Schumacker and Lomax, 2004, Ullman, 2007). This method is an iterative two stage process, which involves the expectation (E) and the maximisation (M) stages (Hair et al., 2010). ‘The E stage makes the best possible estimates of the missing data and the M stage then makes estimates of the parameters’ (Hair et al., 2010, p. 50).

5.9.1.2 Data Normality

Ullman (2007) suggested that one of the limitations to the estimations that are often used in SEM is the assumption of multivariate normality. In order to determine the extent of the non-normality within the data, skewness and kurtosis can be used. Skewness relates to the asymmetry of the distribution and can be skewed to the left, positive skewness, or skewed to the right, negative skewness (Tabachnik and Fidell, 2007). Skewed data or data that is more frequent along one part of the measurement

scale will affect the variance-covariance among variables. However Tabachnick and Fidell (2007) noted that in large samples the significance of the skewness is not as important as its deviation from zero. This also holds true for the kurtosis. Kurtosis relates to the peakedness or flatness of the distribution (Schumacker and Lomax, 2004). Leptokurtic data values are more peaked and platykurtic data values are flatter (Schumacker and Lomax, 2004). Extreme values for skewness and kurtosis are below -3 or above +3. Under normality, the skewness and kurtosis should be zero, above zero indicates a departure from normality (Hair et al., 2010). If non-normal data is identified, outliers should be investigated for.

5.9.1.3 Outliers

According to Hair et al. (2010, p. 64), 'outliers are observation with a unique combination of characteristics identifiable as distinctly different from the other observations'. They can occur due to procedural error (data entry error), extraordinary event (hurricane), extraordinary observations (no explanation for occurrence), unique in their combination, or actual extreme values from self-reported data (Tabachnik and Fidell, 2007).

Outliers can affect the mean, standard deviation, skewness or kurtosis of the data and need to be identified in order to explain, delete or accommodate them (Schumacker and Lomax, 2004) . Mahalanobis distance statistic can be used in SPSS to identify outliers. It allows for a multivariate assessment of each of the observations across the set of variables. Each outlier should be evaluated as they can be either beneficial or problematic (Tabachnik and Fidell, 2007).

5.9.2 SEM: Stage One

The aim of the factor analysis was twofold; firstly to explore constructs and to identify the most salient factors and secondly to confirm previous constructs. Exploratory factor analysis can be used to identify new items or constructs. Exploratory analysis can be useful for scale development as it reduces the large number of items to a more manageable set (Gerbing and Anderson, 1988). Churchill (1979, p. 69) concurred and noted that ‘factor analysis can indeed be used to suggest dimensions’. It is a useful analysis for preliminary scale construction, which is followed by confirmatory analysis. According to Anderson and Gerbing (1988, p. 412) ‘the distinction in practice between exploratory and confirmatory analysis can be thought of as that of ordered progression’.

Confirmatory Factor Analysis (CFA) was performed to identify whether the measurement items reliably reflected the constructs (Ryu and Jang, 2007). Churchill (1979, p. 69) indicated that ‘factor analysis can be used to confirm whether the number of dimensions conceptualised can be verified empirically’. Gerbing and Anderson (1988) concurred and noted that CFA is needed to evaluate and refine the constructs. According to Gerbing and Anderson (1988, p. 190) the ‘reliability of the scale is determined by the number of items that define the scale and the reliabilities of those items’. Each of the proposed scales contained a minimum of three items.

Within this first step, Cronbach alpha scores were computed on the factors to indicate the level of internal consistency and reliability (Harris and Ezeh, 2008, Liu and Jang, 2009). SPSS was utilised to calculate Cronbach alpha. The most

commonly reported measure of reliability is the Cronbach and that the usual criterion is 0.7 or above (Homburg and Stock, 2004, Parish et al., 2008, Chi and Gursoy, 2009, Gracia et al., 2010). In the second stage, the structural model was tested using LISREL 8.8 to determine the adequacy of the proposed model. Each of the factors were re-examined in LISREL to ensure reliability and internal consistency. SEM will be looked at in more detail next.

5.9.3 SEM: Stage Two

Jarrett (2000, p. 288) indicated that 'SEM has been widely adopted in many disciplines, since it recognises that latent variables...are measured with error, can allow for feedback effects in the model and recognises correlations between residuals'. Hershberger (2003) agreed and indicated that there has been a steady growth in the number and variety of journals using SEM. The utility of SEM as a tool has become increasingly apparent and has spread to many fields, from behavioural and biological sciences to marketing and demographics (Hershberger, 2003, Bagozzi and Yi, 2012). It has also been used in fields relating to this research including consumer behaviour (Ryu and Jang, 2007), servicescape (Parish et al., 2008) and climate literature (Gracia et al., 2010).

According to Ullman (2007, p. 676), 'SEM is a collection of statistical techniques that allow a set of relationships between one or more IV's [Independent Variable], either continuous or discrete, and one or more DV's [Dependent Variable], either continuous or discrete to be examined'. Jarratt (2000) suggested that SEM is an

analysis technique that specifies direct and indirect relationships between dependent and independent and constructs.

In contrast to multiple regression analysis, SEM allows for multiple and interrelated dependence measures such as those specified in this thesis. A key benefit of SEM is that it examines relationships between and among one or more of the dependent variables and two or more independent variables (Parish et al., 2008). Through using SEM, researchers are provided with a comprehensive means for assessing and modifying the theoretical relationships between the dependent and independent variables (Anderson and Gerbing, 1988, Bagozzi and Yi, 2012).

SEM allows us to hypothesize ‘latent variables or unobserved constructs that can be approximated by measurable variables’ (Schumacker and Lomax, 2004, p. 7). There is greater recognition given to the ‘validity and the reliability of observed score from measurement instruments’ (Grapentine, 2000, p. 14). The latent variables will be measured using reliable and validated multi-item scales as mentioned. This approach helps minimise random measurement error and maximise reliability and validity (Michon et al., 2005). With multiple regression analysis all variables are assumed to be correlated and measured without error.

However, SEM techniques explicitly take measurement error into account when statistically analyzing data (McQuitty, 2004), which allows reliability to be accounted for within the analysis (Schumacker and Lomax, 2004). This also enables the researcher to specify structural relationships among the latent variables thus producing more precise representations (Schumacker and Lomax, 2004). Through

allowing specified relationships SEM produces a more accurate representation than path analysis, where variables are measured without error (Tabachnik and Fidell, 2007).

The most prominent advantage of SEM, which sets it apart from other multivariate techniques, is its ability to allow for the consideration of simultaneous equations with many dependent variables. Complex relationships can be examined when the phenomenon of interest is multidimensional. SEM analysis allows for complete and simultaneous tests of all the relationships in the proposed model (Tabachnik and Fidell, 2007). SEM was chosen because it can support simultaneously latent variables with multiple indicators, interrelated dependent variables, mediating effects, and causality hypotheses (Tabachnik and Fidell, 2007).

Despite its clear advantages SEM is considered to be ‘complex to implement and the appraisal of findings can be difficult as well’ (Bagozzi and Yi, 2012, p. 8). Furthermore, it is often incorrectly interpreted because of how it is represented in a model. The directional arrows in the model do not represent that the directionality has been tested. It is important to note that although SEM is referred to as a form of causal modelling, it does not allow us to discover causative relationships (Hightower et al., 2002, Reimer and Kuehn, 2005). SEM is a means by which theoretical relationships can be tested (Grapentine, 2000, Schumacker and Lomax, 2004).

It has generally been accepted that there are five key steps to SEM, model specification, model identification, model estimation, testing model fit and model modification (Ullman, 2007, Schumacker and Lomax, 2004).

5.9.3.1 Model Specification

This first step involves using all the relevant theory, information and research to propose the theoretical model (Schumacker and Lomax, 2004). The proposed model was developed from the relevant theory based on chapters one to four and is shown in figure 5.2. Once this theoretical model has been developed a path diagram is used to illustrate the model to be tested. According to Byrne (2001) SEM models are schematically depicted using particular configurations of four geometric symbols.

A oval or ellipse, which represents the unobserved latent variables (Schumacker and Lomax, 2004), a square or rectangle represents the observed variables, a single headed arrow represents the impact of one variable on another and a double headed arrow represents correlations between pairs of variables (Kline, 2005). Every line with a single arrowhead represents a hypothesised direct effect of one variable on another. 'The arrowhead points to the presumed effect and the line originates from a presumed cause' (Kline, 2005, p. 68). These direct effects can be termed paths and the statistical estimates of these paths are called path coefficients. In Figure 5.2 the single arrow lines represent the hypothesised relationship between the variables. The variables with the arrow pointing towards them are the dependent variables. For example, employee satisfaction is an independent variable relating to the dependent variable of employee loyalty.

5.9.3.2 Model Identification

According to Schumacker and Lomax (2004, p. 63) 'it is crucial that the researcher resolve the identification problem prior to estimation of parameters'. Identification

problem relates to theoretical models having infinite number of possible solutions. For example, a theoretical model might suggest that $X + Y = 10$, there may be no unique solution for X and Y, X could be 2 and Y could be 8 or X could be 7 and Y could be 3. There is indeterminacy, the possibility that the data can fit more than one theoretical model (Schumacker and Lomax, 2004, Ullman, 2007).

‘A model is said to be identified if there is a unique numerical solution for each of the parameters’ (Ullman, 2007, p. 709). A key concern for identification is to find the unique set of parameter estimates, once the parameter specification are indicated ‘the parameters are combined to form one and only one Σ (model implied variance-covariance matrix)’ (Schumacker and Lomax, 2004, p. 64). The parameters and the data points in the model should be counted, in SEM the variances and covariances of the sample covariance matrix S, are the data points (Ullman, 2007). ‘The sample covariance matrix implies some underlying, yet unknown theoretical model...known as the covariance structure (Schumacker and Lomax, 2004, p. 62).

Each parameter in a model can be termed a free, fixed or constrained parameter. A free parameter is an unknown value, a fixed parameter is a set value, typically 0 or 1 and a constrained is also an unknown value but is constrained to equal one or more parameters (Schumacker and Lomax, 2004). For example, if X is fixed to 7 then the only solution for Y could be 3, resulting in an identifiable equation. Bagozzi and Yi (2012) suggested that SEM uses measurement models that are constrained by the hypotheses of the model.

The three levels of model identification are: under-identified, just-identified and over identified (Schumacker and Lomax, 2004, Bagozzi and Yi, 2012). Each level depends on the amount of information in the sample variance-covairance matrix S. If there are more data points then parameters to be estimated, the model is said to be overidentified because there is more than enough information in the matrix S (Schumacker and Lomax, 2004, Ullman, 2007). The model is just-identified, if there is the same number of data points as parameters or just enough information in the S matrix. If there is not enough information in the S matrix, i.e. not enough data points for the parameters to be estimated then the model is underidentified or not identified (Ullman, 2007).

If a model is just-identified or overidentified then the model is identified and has positive degrees of freedom (Schumacker and Lomax, 2004). In order to avoid underidentification, three indicators or more should be used to measure a factor (Bagozzi and Yi, 2012). However though a two item factor is underidentified, when integrated in a model with other three or four item factors the overall model may be overidentified. The extra degrees of freedom from the other factors could provide the necessary degrees of freedom to identify the entire model (Hair et al., 2010).

5.9.3.3 Model Estimation

There are several estimation procedures available. Some of the more well-known types are ordinary least squares (OLS), generalized least squares (GLS) and Maximum likelihood (ML) (Schumacker and Lomax, 2004). An appropriate estimation procedure should be applied in order to minimize the difference between

the implied matrix Σ and the sample matrix S . According to Hair et al. (2010, p. 661), ‘the most common SEM estimation procedure is’ ML. ML is sometimes referred to as MLE, where E stands for estimation. ML is an iterative procedure, assumes multivariate of the observed variables, more efficient and unbiased, and can be used for sample sizes as small as 50 (Schumacker and Lomax, 2004).

5.9.3.4 Model Testing

There are numerous fit criteria for assessing how well a model fits the data. There are different criteria across disciplines and a lack of clarification as to what measures should be used. However Schumacker Lomax (2004, p. 69) suggested there are ‘two ways to think about model fit’, a global test of fit for the entire model and the fit of individual parameters of the model. Hooper et al. (2008) suggested using the chi-square statistic (χ^2), degrees of freedom (df), p-value, Root Mean Square Error of Approximation (RMSEA) and Standardised Root Mean Square Residual (SRMR) for global fit indices.

The main criteria for fit are the chi square test and the RMSEA (Schumacker and Lomax, 2004). The chi-square test evaluates overall model fit. The ratio of chi square and is degree of freedom is examined (χ^2/df). Ullman (2007, p. 715) suggested a ‘good fitting model may be indicated when the ratio of the χ^2 to the degrees of freedom is less than 2’. Schreiber et al. (2006) highlighted that two or three times is the general rule for acceptable model fit.

RMSEA is the most commonly used and is considered to one of the most informative fit indexes (Wangenheim et al., 2007, Chi and Gursoy, 2009, Homburg et al., 2011, Yee et al., 2011). There is some debate about what is a good or acceptable level of fit but a general rule of thumb would be, levels of .05 are below are considered to indicate a good fitting model and .05 to .08 are considered to be acceptable levels of fit (Homburg and Stock, 2004, Schumacker and Lomax, 2004, Ullman, 2007, Hooper et al., 2008). Small values of SRMR indicate a good fit. It can range from 0 to 1, values of .08 or less are desired (Hu and Bentler, 1999, Schreiber et al., 2006). SRMR relates to the average ‘distances between the sample variances and covariances and the estimated population variances and covariances’ (Ullman, 2007, p. 720).

In the past goodness-of-fit (GFI) and adjusted goodness-of-fit (AGFI) were commonly used as fit indexes for examining SEM (Schumacker and Lomax, 2004). However most recently within the services marketing literature many authors are using the normative-fit index (NFI) and the comparative-fit index (CFI) (Wangenheim et al., 2007, Gracia et al., 2010, Homburg et al., 2011) to represent the fit of their dyadic data. Parish et al. (2008) examined the effect of the servicescape on employees and though they did not use dyadic data, they also used CFI and not GFI. Furthermore, Mulaik (1989) recommended that it is appropriate to use GFI when the sample size is larger than 200 but if sample is smaller than it is not the most appropriate measure.

The second step involves examining the individual parameters of the model (Schumacker and Lomax, 2004). This involves examining the parameter estimate,

standard error and t-value. The R², reliability and correlated measurement error are also important procedures that should be looked at.

Parameter Estimate

Parameter estimates are fundamental to SEM as they are used to estimate the population covariance matrix for the model (Tabachnik and Fidell, 2007). The parameter estimates should be examined to determine if they have the correct sign associated with them (Schumacker and Lomax, 2004). The sign should agree with what is expected from the theoretical model. Positive signs signify an increase in value in the dependent factor and a negative sign indicates a decrease in value in the dependent factor. Within LISREL, the parameter estimates of the model relates to the standardised loadings or beta coefficients. The standardised loadings 'reflect the change in dependent measure for each unit change in the independent variable' (Hair et al., 2010, p. 211).

Standard error

According to Joreskog and Sorbom (2001, p. 4), 'each standard error is a measure of the precision of the parameter estimate'. It relates to the measure of variation in the predicted values (Hair et al., 2010). If they are small then the parameters have been estimated accurately.

t-value

The t-value is the ratio between the parameter estimate and its standard error (Joreskog and Sorbom, 2001). It is used to determine if the particular parameter is not equal to zero given a stated confidence level. T-values between -1.96 and 1.96 are not significant at the 5% confidence level and values between -2.57 and 2.57 are not significant at the 1% confidence level (Schumacker and Lomax, 2004).

R²

R² can be referred to as the coefficient of determination (Hair et al., 2010). It relates to the amount of variance that is explained in the dependent variable which is accounted for by the independent variable(s).

Reliability

As mentioned, Cronbach alpha was used to assess internal reliability during the first stage of analysis. However, with the popularity of SEM, researchers have begun to use two other indicators of internal consistency. It was Fornell and Larcker (1981) who endorsed the use of the Composite reliability (CR) and Average Variance Extracted (AVE) indicators to assess internal consistency. CR draws on standardised loadings and measurement (standard) error for each item. This internal consistency indicator needs to exceed .6 (Bagozzi and Yi, 2012). AVE is the second indicator and shows the amount of variance that is captured by the factor in relation to the amount of variance due to measurement error (Fornell and Larcker, 1981, Bagozzi

and Yi, 1988, Shook et al., 2004). The AVE should exceed .5 (Bagozzi and Yi, 1988). In more recent times, CR along with AVE appear to be the customary choice in the literature for assessing reliability (Eskildsen et al., 2004, Wangenheim et al., 2007, Gounaris, 2008, Harris and Ezech, 2008, Kim and Moon, 2009, Hu and Jasper, 2010, Bagozzi and Yi, 2012), whereas before t -tests were standard (Shook et al., 2004).

Correlated measurement error

According to Joreskog and Sorbom (1993, p. 96), within SEM 'all errors terms are assumed to be uncorrelated by default'. However one may have reason to specify that two or more error terms are in fact correlated (Joreskog and Sorbom, 1993). This is known as a correlated measurement error (Schumacker and Lomax, 2004). Within LISREL, it is clarified by setting the covariance error.

5.9.3.5 Model Modification

If the fit of the proposed model is not acceptable, as is often the case, modifications to the model may be needed to help improve the fit. Within LISREL, modification indexes can be captured and represented. These indexes specify paths whose addition to the model could reduce the overall chi-square resulting in a better fitting model (Schumacker and Lomax, 2004). A key rule of thumb when making modification to the model is that any proposed changes to paths should be firmly supported with robust theoretical justification (Schumacker and Lomax, 2004, Ullman, 2007). Modification indexes alone should not guide a new model.

5.9.4 Common Method Bias

Podsakoff et al. (2003) suggested that different methods are needed to examine common method bias. The methods used depend on the type of research being carried out. Due to dyadic data being examined, where information is collected from two separate sources, this rules out the risk of common method bias (Homburg and Stock, 2004). Podsakoff et al. (2003) highlighted that common method bias can be controlled for by obtaining measures of the predictor and the criterion variable from separate sources; in this research data was collected from customers, employees and managers. Thus following these procedures, common method bias was deemed as non-problematic.

Podsakoff et al. (2003) and MacKenzie and Podsakoff (2012) indicated that procedural remedies relating to the questionnaire design can be completed to control for method variance. The following procedural remedies were used, respondents answered anonymously, verbal labels were provided and focused questions, double barrelled questions and unfamiliar terms were avoided. One of the most widely used common method variance tests is the Harmon's single factor test (Podsakoff et al., 2003), which will be used to check for common method bias.

5.10 Conclusion

Three gaps in the literature were highlighted that related to the SPC, servicescape model and employee environmental stimuli. Three research objectives relating to these gaps were identified and the proposed model includes 13 hypotheses. In taking

a positivist approach, the main form of data collection was questionnaire. Interviews and a pilot questionnaire were carried out to gain adequate insight before administering the final questionnaire. SEM is considered to be a two stage process; first stage involves the CFA, which measures the factors, the second stage relates to testing the structural model. The next chapter will examine the findings from the two step SEM process that was suggested.

6 CHAPTER 6 Analysis

You can use all the quantitative data you can get, but you still have to...use your own intelligence and judgment.

Alvin Toffler, American Author

6.1 Introduction

The analysis begins with cleaning the data collected. This research uses dyadic data and the operationalisation of this will be explained. The first stage of analysis used Confirmatory Factor Analysis (CFA). Using the format of the proposed model, Stimulus-Organism-Response, each of the factors will be analysed in order of: environmental stimuli for customers, environmental stimuli for employee, PAD customers, PAD employees, customer satisfaction, service quality, customer loyalty, employee satisfaction, employee loyalty and financial performance. Based on this first stage of analysis, the hypotheses are further fine-tuned before examining the second stage of the analysis using Structural Equation Modelling (SEM). The findings for each of the hypotheses relating to the research objectives are identified and explored. Table 6.26 identifies the significant and insignificant links found. The chapter concludes with results and analysis of the final model.

6.2 Data Cleaning

The proposed sample was a minimum of 15 managers, between 45 and 120 till operators and between 360 and 1200 customers, as per chapter five. The sample collected consisted of 27 managers, 103 till operators and 1030 customers. This was an acceptable sample size (Fabrigar, 1999). Maximum Likelihood (EM) was used to deal with missing data as it is recommended for SEM (Ullman, 2007). Except for the PAD data, EM was used to find the expected value for the missing data. PAD will be looked at in more detail later in this chapter. No extreme values were found for

skewness or kurtosis. However, for customers there were six respondents that were deleted based on Mahalanobis distance as outliers. These were deleted on a one by one basis based on their extreme values along the customer satisfaction construct. There was no theoretical justification for their extreme values and thus they were deleted from further analysis. This resulted in 1024 customer respondents, which were then aggregated to employee level. This resulted in 100 customer-employee pairs. As this research was examining dyadic data, several customer respondents were further deleted. This will be looked at next.

6.3 Dyadic Data

As the research collected dyadic data, this resulted in the customer data being median aggregated to the employee level. According to Wangenheim et al. (2007, p. 694) ‘aggregating would imply averaging over the lowest level’ in this case the employee. By aggregating the data similarly to Wangenheim et al. (2007, p. 694) ‘overestimation of the effects of employee satisfaction on customer satisfaction is avoided’. In aggregating the data, the data set was reduced and resulted in 97 useable dyads. Six dyads were eliminated due to some employees not having any customer questionnaire responses, only one customer response for employees and missing data on customer responses. This may appear to be a small sample but 1024 customers have been aggregated across the 103 employee responses. Gracia et al. (2010) used a set of 117, Homburg et al. (2011) used a set of about 195 and Homburg and Stock (2004) used a set of 164 in examining their models.

Schumacker and Lomax (2004) note that using only one fit index should not be relied on. In this case, due to the data being dyadic, aggregated and the sample size being 97 then it is not appropriate to use GFI as a measure of fit. As dyadic data is being examined here CFI and NFI will be the main fit indexes that will be used. As mentioned in the methodology, chapter five, AVE and CR are used to assess the internal consistency and reliabilities of the constructs.

6.4 Descriptive Analysis

Data was collected from 15 stores in the greater Dublin area. The stores ranged from having 59 to 80 customer respondents and five to ten employee respondents. The profile of the customer respondents was as follows: Gender, 28% were male, 67% were female, missing 5%; Age, 8% were 18-24, 18% were 26-35, 23% were 36-45, 23% were 46-55, 16% were 56-65, 9% were 65+ and missing 3%. There were slight variations across the stores. For example, store one had 30% aged 18-25 and gender was more evenly distributed with 42% male, 56% female and 2% missing. This was probably due to the stores close proximity to several universities. Store 14 had 26% aged 18-25, 33% aged 26-35 and gender was more evenly distributed with 47% male, 50% female and 3% missing. Similarly to store one, location probably impacted this particular store due to it being in a financial district, where there would be many office workers.

In aggregating the data to employee level, the customer demographics are no longer suitable for use as control variables. In analysing the final model, the employees and managers provided the data that was used for the control variables.

The profile of the employee respondents was as follows: Gender, 28% were male and 72% were female; Age, 56% were 18-24, 24% were 26-35, 7% were 36-45, 7% were 46-55 and 6% were 56-65.

6.5 Common Method Bias

Podsakoff et al. (2003) and MacKenzie and Podsakoff (2012) suggest several techniques for reducing common method bias. In order to reduce common method bias within this research the following procedures were carried out: the factors were measured with psychological and proximal separation, thus factors were measured in different parts of the questionnaire and with different sets of instructions; respondent anonymity was protected and assurance was given to respondents that there were no undesirable or incorrect answers; and a Harmon single factor test was carried out.

All variables were loaded into a factor analysis model in order to carry out a Harmon single factor test. A major assumption of the Harmon single factor test according to Podsakoff et al. (2003, p. 889) is ‘that if a substantial amount of common method variance is present, either a single factor will emerge from the factor analysis or one general factor will account for the majority of the covariance among the measures.’ Neither of these occurrences appeared as multiple factors were found with the factor analysis. When one factor was specified in SPSS, it resulted in one factor explaining

18% of the variance. This clearly indicates that there is no significant level of common method bias.

6.6 Confirmatory Factor Analysis (CFA)

Each of the factors in the proposed model will be analysed using Confirmatory Factor Analysis (CFA). They will be looked at in order of the SOR as suggested in the proposed model, see figure 5.2 in chapter 5. Each of the factors and constructs will be examined and explained. The proposed model will then be examined in its entirety using SEM in LISREL 8.8, as per Anderson and Gerbing (1988) two step procedure.

6.6.1 Customer Environmental Stimuli

As noted within the literature, the servicescape model has been frequently used to examine the environmental stimuli impacting customers (Tombs and McColl-Kennedy, 2003). A one-factor model on which all 26 items loaded on the environmental stimuli construct was run in LISREL. Fit statistics for this model were poor with a significant chi square value of 732.83.47, *df* 299, p-value .0000. Other fit statistics also did not meet the criteria standards for adequacy of fit, for example the RMSEA was .123 and SRMR was .081, suggesting that perhaps this model has been mis-specified. Bitner (1992) suggested that the servicescape model contained three dimensions and each dimension contained several factors. Each factor of the servicescape construct was then examined in isolation. However within LISREL a

factor must have more than three items to be able to determine the model fit on its own. Due to this the factors of colour, music, olfaction, lighting and layout were looked at with other factors to determine their fit. Each factor was also examined with every other factor in the model. This resulted in a total of 136 tables of factors. Appendix 6 gives the tables for each of the factors. Chi and Gursoy (2009) tested factors in sets of two and this was carried out for all the factors in the analysis.

6.6.1.1 Layout

The item LAY1 had a R^2 of .14. This is exceptionally poor. Participants repeatedly indicated to the research team that they were unsure what the question was asking. A reason may be that the wording of ‘never fails’ appeared to be problematic for this question and as a result this was deleted from further analysis. When re-examined without the LAY1 there was a significant improvement on the statistical fit. However the fit was just an acceptable level. LAY4 was found to have significant cross loadings with LAY2 and LAY5 and was thus removed from analysis. Though LAY2 had a low R^2 of .35, this is only slightly deviated from .40, which is considered the minimum acceptable level. Homburg et al. (2011) and Homburg and Stock (2004) suggest items that only slightly deviate from .40 can be kept in to preserve conceptual comprehensiveness of the factor. They kept items in that were as low as .30. Thus the item was left in. The CFA had an acceptable fit, as per table 6.1

| Label | Item | Standardised Loading | Error Variance | t-value | R ² |
|---|--|----------------------|----------------|---------|----------------|
| LAY1 | The store layout never fails to impress me | | | | |
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .60 | .65 | 6.12 | .35 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .78 | .40 | 8.68 | .60 |
| LAY4 | The stores layout allows me to move around easily | | | | |
| LAY5 | The signs in the store provide adequate direction | .83 | .31 | 9.57 | .69 |
| Fit*: Chi-Square 25.48, <i>df</i> 19, p-value 0.14537, RMSEA 0.060, SRMR .038, GFI .98, NFI .97, CFI .99, CR .78, AVE .55, Cronbach's Alpha, .735 | | | | | |

* tested with Design factor

Table 6.1 Layout

In their research Wakefield and Blodgett (1996), Wakefield and Baker (1998) and Kim and Moon (2009) found layout to be a separate factor to other factors within the servicescape construct. The three layout items found for the layout factor coincide with Kim and Moon's (2009) research. Brady and Cronin (2001) and Pollack (2009) also examined three items which they called design, however two of the items specifically asked about the layout and one item was a general design item. Furthermore, these items were related to a quality design as opposed to environmental stimuli. Design will be looked at next and its distinctiveness from the layout factor is examined.

6.6.1.2 Design

Initially design was run with the specified design items. DE1 had a R^2 of .12 and was removed from further analyses. The fit statistics were excellent for this reduced design factor. However each of these environmental stimuli factors are being examined with the other environmental stimuli factors to determine the fit for the customer environmental stimuli construct (see appendix 4). The inter-correlation between design and colour was .99. This indicated that perhaps consumers did not differentiate between the two factors. Crowley (1993) and Gorn et al. (2004) both indicate that colour often makes the firms first impression and is incorporated into the design of a facility. Verhoeven et al. (2006) also indicated that colour enhances evaluation of the physical environment. The design items relate to décor and how the store is visually appealing so it would make theoretical sense for colour and design items to relate to a single factor. Therefore these constructs were merged and are denoted by the term design in the combined factor.

The colour factor contained three items. When analysed in conjunction with other environmental stimuli factors C1 appeared to crossload across many other factors and for this reason was withdrawn from analyses. This resulted in five items being examined for the merged design factor. This resulted in a poor fit, with a RMSEA of .098. However through further analyses it came to light that DE3 had significant crossloadings with both colour items and was subsequently removed. This gave an excellent fit for the revised design factor, as per table 6.2.

| Label | Item | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|--|---|-----------------------------|-----------------------|----------------|----------------------|
| C1 | The colours used create a pleasant atmosphere | | | | |
| C2 | The colour scheme in the store is attractive | .79 | .37 | 9.07 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 | .40 | 8.83 | .60 |
| DE1 | The materials used inside the store are pleasing & of high quality | | | | |
| DE2 | This store is decorated in an attractive fashion | .82 | .33 | 9.83 | .67 |
| DE3 | The interior décor of this store is attractive. | | | | |
| DE4 | The store understands that the design of its facility is important to me. | .77 | .41 | 8.70 | .59 |
| DE5 | The interior design is visually appealing | .91 | .17 | 11.30 | .83 |
| Fit: Chi-Square 2.4, <i>df</i> 5, p-value 0.79218, RMSEA 0.000, SRMR .015, GFI .99, NFI .99, CFI 1, CR .9, AVE .66, Cronbach's Alpha .90 | | | | | |

Table 6.2 Design

As noted in the servicescape chapter, see chapter 3, design is often looked at within a general factor called atmospherics, facility aesthetics or even layout and functionality (Hightower et al., 2002, Davies and Tilley, 2004, Kim and Moon, 2009). Bitner (1992) herself did not differentiate between design and layout. The combined design and colour items that were renamed design for this research highlight that it is a separate factor to layout. Kim and Moon (2009) found their factor called 'facility aesthetics' contained two design and two colour items and one item relating to attractiveness of the restaurant. Their factor coincides with the design factor. Furthermore Davies and Tilley (2004) and Gorn et al. (2004) concurred that colour is related to design of interior stores and often makes the first impression.

6.6.1.3 Cleanliness and Olfaction

Based on previous research, reversed items were used in the study (Harris and Ezeh, 2008). However CLEAN1R and CLEAN4R were the two items that were reversed and caused significant problems. The R^2 were all exceptionally poor, .23 and .093. As such these two items were deleted from further analysis, leaving two cleanliness items. These are CLEAN2 and CLEAN3. CLEAN2 crossloaded across music items and theoretically there was no justification for this. CLEAN2 was then deleted from analyses.

CLEAN3 relates to maintaining clean food environments. Within a supermarket environment context clean foodservice areas could impact the presence of scent. Unclean food service areas could lead to unpleasant food odours. Knasko (1995) believes that malodours tend to impact avoidance behaviours. According to Gulus and Bloch (1995) ambient scent must be apparent in the service environment in order to influence behaviour. Within the literature, research on ambient scent is limited (Gulus and Bloch, 1995, Bone and Ellen, 1999) and research is often experimental in nature (Mattila and Wirtz, 2001, Spangenberg et al., 2005). It is sometimes examined as one single item relating to a general ambient conditions factor (Hightower et al., 2002, Kim and Moon, 2009).

Harris and Ezeh (2008) used two items for their aroma factor and four items for their cleanliness factor. Their research was on restaurants where cleanliness could be examined in the bathroom area; however this was not relevant for a grocery retail store. They found the cleanliness and olfaction to be separate factors. Miles et al.

(2012) research contained six cleanliness items. Two of these items related to spending time in the facility and four items were very similar to Harris and Ezeh (2008).

From a theoretical viewpoint it was deemed appropriate to include the cleanliness item of CLEAN3 with the olfaction items. The four items for olfaction did not represent a good fit on their own. When examined with the other factors O1 had significant cross loadings across design and layout. Theoretically this could not be justified and thus it was removed from further analysis. This resulted in an excellent fit for the revised olfaction factor, as per table 6.3

| Label | Item | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|--------|--|-----------------------------|-----------------------|----------------|----------------------|
| CLEAN3 | The store maintains clean food service areas | .72 | .49 | 7.74 | .75 |
| CLEAN2 | The store has clean aisles and exits | | | | |
| O1 | The store has a pleasant smell. | | | | |
| O2 | The aroma in this store is pleasant. | .87 | .25 | 10.16 | .65 |
| O3 | The aroma in the store is fitting. | .81 | .35 | 9.15 | .51 |

Fit*: Chi-Square 2.63, *df* 4, p-value 0.62098, RMSEA 0.000, SRMR .015, GFI .99, NFI .99, CFI 1, CR .84, AVE .64, Cronbach's Alpha .83

* tested with lighting factor

Table 6.3 Olfaction

6.6.1.4 Music

Throughout the literature, music is the most researched out of all Bitner's (1992) servicescape factors (Turley and Milliman, 2000). However it is most often researched by itself or contained as a single item in a general atmospheric factor. Harris and Ezeh (2008) examined music with other factors and found it to be

separate from other environmental stimuli, such as layout and olfaction. The three music items had a good fit which coincides with Harris and Ezeh (2008) music factor, as per table 6.4

| Label | Item | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|--|--|-----------------------------|-----------------------|----------------|----------------------|
| M1 | The music played in the store is pleasant | .67 | .56 | 8.57 | .44 |
| M2 | The music in the store is played at an appropriate volume. | .87 | .24 | 10.86 | .76 |
| M3 | The music played in the store is appropriate. | .77 | .40 | 7.43 | .60 |
| Fit*: Chi-Square 9.85, <i>df</i> 8, p-value 0.27593, RMSEA 0.049, SRMR .036, GFI .97 NFI .98, CFI .99, CR .81, AVE .59, Cronbach's Alpha .82 | | | | | |

* Tested with olfaction factor

Table 6.4 Music

6.6.1.5 Lighting

Similarly to colour, olfaction and music, lighting is often researched as part of an overall ambient or atmospheric factor, consisting of one item in the factor (Hightower et al., 2002, Jang and Namkung, 2009, Kim and Moon, 2009). L1 was deleted from the lighting factor because it had an R² of 0.26. This left two items for lighting. Though not ideal to have two items representing a factor, it was deemed acceptable to have two item for the factor as Harris and Ezeh (2008) had two items for their aroma factor and Pollack (2009) had two for his physical environment quality factor. Lighting had an excellent fit, as per table 6.5

| Label | Item | Standardised Loading | Error Variance | t-value | R ² |
|-------|--|----------------------|----------------|---------|----------------|
| L1 | The overall lighting level in the store is appropriate | | | | |
| L2 | The lighting creates a comfortable atmosphere | .86 | .27 | 9.77 | .73 |
| L3 | The lighting is excellent at the store. | .84 | .29 | 9.57 | .71 |

Fit: Chi-Square 2.63, *df* 4, p-value 0.62098, RMSEA 0.000, SRMR .015, GFI .99 NFI .99, CFI 1, CR .83, AVE .72, Cronbach's Alpha .83

* examined with Olfaction factor

Table 6.5 Lighting

6.6.1.6 Second Order Factor Model of the Customer Environmental Stimuli

After deleting items, LAY1, LAY4, C1, DE1, DE3, O1, CLEAN1R, CLEAN2, CLEAN4R, and L1 there were 16 items to examine within the five factors that were found. As noted these factors relate to different dimensions that form an overall impression of the customer environmental stimuli. The next stage was to examine the entire customer environmental stimuli construct and its sub-factors. A second order factor analysis was tested for. A second order factor is present when a first order factor is explained by some higher order factors (Schumacker and Lomax, 2004). It can be used to test the reliability and validity of the environmental stimuli construct. In this case the five sub-factors relating to Bitner's (1992) servicescape dimensions, design factor, music factor, lighting factor, olfaction factor and layout factor were all included. The second order model had a very good fit, apart from the RMSEA which was at an acceptable level of .076. The fit indices were as follows, Chi-square 153.80, *df* 99, p-value .00035, SRMR .054, NFI .95 and CFI .97 and is presented diagrammatically in figure 6.1.

Having confirmed the sub-factors in the second order factor model, the items were aggregated in SPSS to form the sub-factors of the customer environmental stimuli construct. The model was then re-examined in LISREL, as per figure 6.2. See table 6.6 for model fit. The RMSEA was very poor for the model, at .145. This is surprising as the second order model had an acceptable fit. This could be due to the data being aggregated at the first step of analysis and then it is being aggregated again in this second stage of analysis (when examining the employee environmental stimuli second order model, the RMSEA improved when the data was aggregated).

| <i>Construct</i> | <i>Sub-Factor</i> | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|---|-------------------|-----------------------------|-----------------------|----------------|----------------------|
| Customer Environmental Stimuli | Design Factor | .95 | .10 | 12.32 | .90 |
| | Olfaction Factor | .80 | .37 | 9.24 | .63 |
| | Music Factor | .72 | .48 | 8.04 | .52 |
| | Lighting Factor | .85 | .28 | 10.17 | .72 |
| | Layout Factor | .84 | .29 | 10.08 | .71 |
| Fit: Chi-Square 15.12, <i>df</i> 5, <i>p</i> -value 0.00988, RMSEA 0.145, SRMR .032, GFI .94, NFI .96, CFI .97, CR .91, AVE .69, Cronbach's Alpha .91 | | | | | |

Table 6.6 Customer Environmental Stimuli Construct

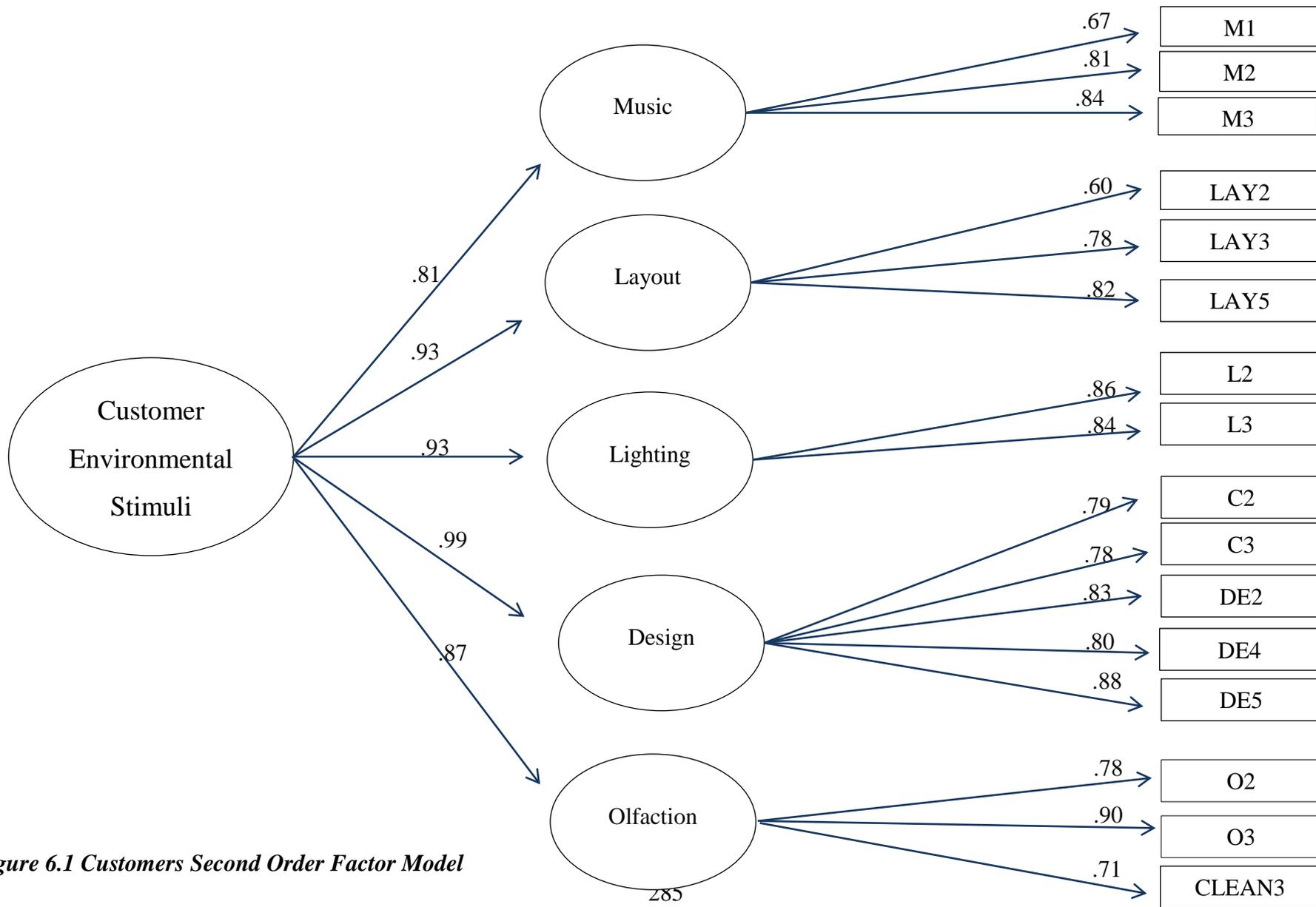


Figure 6.1 Customers Second Order Factor Model

All other fit indexes are very good. Also as the second order model was acceptable, all factors remained for further analysis. Furthermore, as previously noted Schumacker and Lomax (2004) suggest not relying on one fit index to make judgements.

When analysing the customer environmental stimuli construct, it was found that removing the lighting factor that the RMSEA was greatly reduced to .077. However there was no theoretical justification for this and rather than let statistics drive the analysis the lighting factor sub-factor remained. Furthermore by retaining lighting factor symmetry was formed with the employee environmental stimuli construct, which will be looked at next.

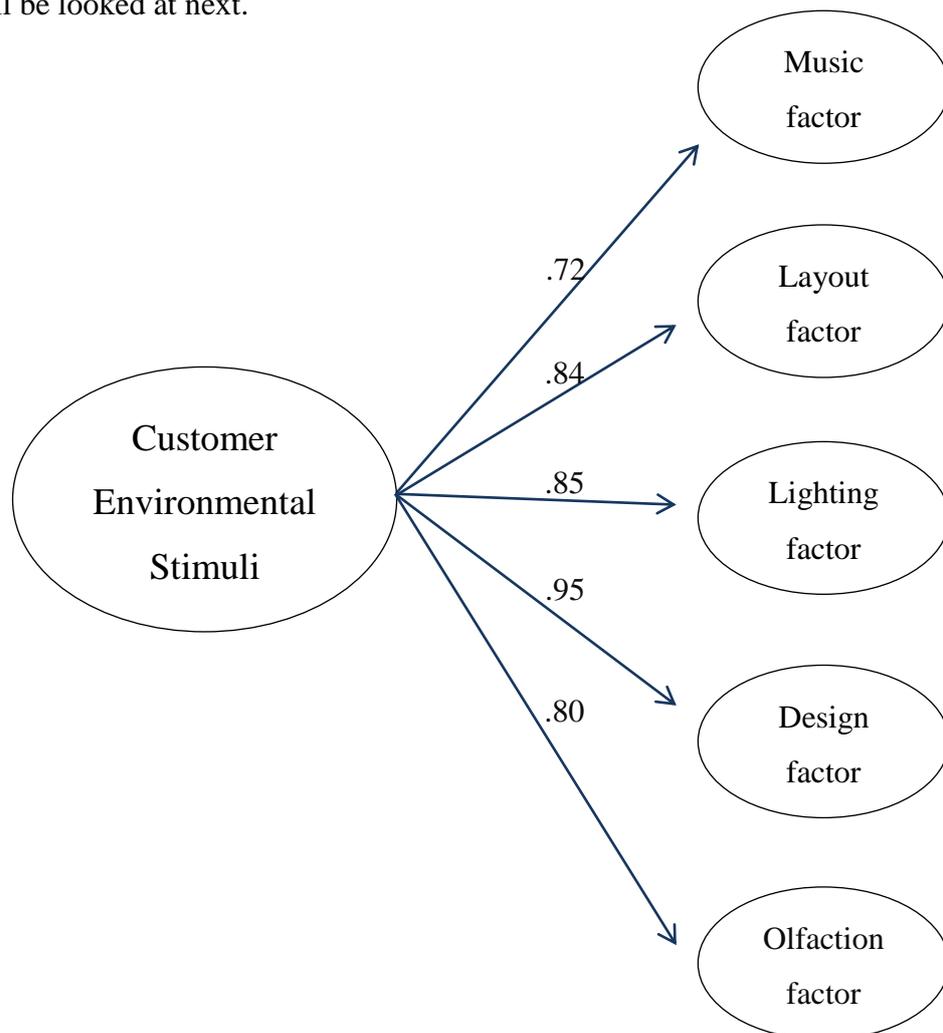


Figure 6.2 Customer Environmental Stimuli Construct after Aggregation

6.6.2 Employee Environmental Stimuli

There is very limited literature relating specifically to employee environmental stimuli in service settings (Parish et al., 2008, Skandrani et al., 2011). Skandrani (2011) carried out qualitative research and Parish et al. (2008) looked at old and new service environments. However Parish et al. (2008) did not examine the factors that made up the service setting but rather examined environmental perceptions of convenience, safety and pleasantness of old and new environments.

In order to examine employee environmental stimuli, the same items that were used for the customer environmental stimuli were used. Davis (1984) proposed that the physical work environment could be classified into three main elements, (1) physical structure, (2) physical stimuli, and (3) symbolic artefacts. This ties in with Bitner's (1992) three environmental dimensions used to classify a servicescape, space/function, ambient conditions and symbols & artefacts. Bitner (1992) herself also does not differentiate between factors for employees and customers. The only slight word change throughout the items was if they related to shopping. The word 'shopping' was used for the customer items and the word 'working' was used for the employee items. Employees and customers are in the same service environment so it was theoretically sound to examine the same in store environmental stimuli.

Similarly to the customer environmental stimuli single factor analysis, the employee environmental stimuli were initially run as a single factor analysis. It included the elements of design, colour, cleanliness, music, lighting and olfaction. Some Fit statistics for this model were acceptable with a significant chi square 708.20, *df* 299,

p-value .0000 and SRMR .077. However the RMSEA was .119, which does not meet the criteria standards for adequacy of fit. Furthermore some items had R^2 lower than .3. This suggests that perhaps this model has been mis-specified. Each of the sub-factors of the employee environmental stimuli construct will be looked at next. To differentiate between customer factors and employee factors 'E' will be used before the factors for employees.

6.6.2.1 Employee Layout (E-layout)

Similarly to the customer layout item, LAY1, ELAY1 had a R^2 that was .13. This is exceptionally poor. It would appear that the wording of this question was problematic for both employees and customers. This was deleted from further analysis. ELAY4 was found to have significant cross loadings with ELAY2 and LAY5 and was thus removed from analysis. Again this corresponded with the customer layout items of LAY2 and LAY5, this could suggest that the wording was not appropriate for the LAY4 or ELAY4 item. This led to a very good fit, as per table 6.7.

| Label | Item | Standardised Loading | Error Variance | t-value | R ² |
|---|--|----------------------|----------------|---------|----------------|
| ELAY1 | The store layout never fails to impress me | | | | |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .64 | .59 | 6.65 | .41 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .83 | .31 | 9.43 | .66 |
| ELAY4 | The stores layout allows me to move around easily | | | | |
| ELAY5 | The signs in the store provide adequate direction | .82 | .33 | 9.22 | .69 |
| Fit*: Chi-Square 28.78, <i>df</i> 26, <i>p</i> -value 0.32115, RMSEA 0.033, SRMR .042, GFI .98, NFI .97, CFI .99, CR .81, AVE .59, Cronbach's Alpha .71 | | | | | |

* tested with Employee Design factor

Table 6.7 Employee Layout (E-layout)

6.6.2.2 Employee Design (E-design)

Initially E-design was run with the specified five E-design items. The fit indexes were poor for the E-design factor with an RMSEA of .124. Similarly to the customer design factor, when E-design was examined with the employee colour items in SPSS it was clearly a one factor solution. Based on theoretical insights from the literature, E-design items and employee colour items were merged and denoted as E-design in the combined factor.

The employee colour factor contained three items. When analysed in conjunction with other environmental stimuli factors EC3 appeared to crossload across the employee music factor as well as some of the E-design items and for this reason was withdrawn from the analysis. This resulted in seven items within the merged E-design factor. This resulted in a poor fit, with an RMSEA of .128. However through further analyses it came to light that EDE2 had significant crossloadings with both

colour items and was subsequently removed. This gave an excellent fit for the merged E-design factor, as per table 6.8 below. The E-design factor contains slightly different items to the customer design factor. EDE1 relates to materials that are used. Customers did not find DE1 to be part of the design factor. Whilst employees did not find EC3, colour adding excitement to the store, related to E-design they did find that EC1 was related. This may be due to employees spending more time in the environment and do not find the colour adds excitement. Though EDE1 had a low R^2 of .35, this is only slightly deviated from .40. Similarly to Homburg et al. (2011) this item was kept in the model to preserve conceptual comprehensiveness. This gave an excellent fit, as per table 6.8.

| Label | Item | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | R^2 |
|---|---|-----------------------------|-----------------------|----------------|-------|
| EC1 | The colours used create a pleasant atmosphere | .84 | .29 | 9.87 | .71 |
| EC2 | The colour scheme in the store is attractive | .85 | .27 | 10.11 | .73 |
| EC3 | The use of colour in the decor scheme adds excitement to this store environment | | | | |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.12 | .35 |
| EDE2 | This store is decorated in an attractive fashion | | | | |
| EDE3 | The interior décor of this store is attractive. | .82 | .33 | 9.50 | .67 |
| EDE4 | The store understands that the design of its facility is important to me. | .68 | .54 | 7.27 | .46 |
| EDE5 | The interior design is visually appealing | .73 | .47 | 7.98 | .53 |
| Fit: Chi-Square 7.46, <i>df</i> 9, <i>p</i> -value 0.58975, RMSEA 0.000, SRMR .031, GFI .97 NFI .98, CFI 1, CR .88, AVE .57, Cronbach's Alpha .88 | | | | | |

Table 6.8 Employee Design (E-design)

In their research Baker et al. (1988) examined a general aesthetics factor. This contained elements relating to design, colour and décor but also contained elements

relating to atmosphere, money spent and windows. Though it contains some items that could be seen to be similar, such as ‘warm colors (such as shades of red or orange) should predominant in a bank rather than cool colors (such as shades of blue or green) [or] art work (pictures or other wall décor) should be used in the bank’ (Baker et al., 1988, p. 38), it was considered not to be in keeping with the Edesign factor.

6.6.2.3 Employee Clean and Olfaction (E-olfaction)

ECLEAN1R and ECLEAN4R were the two items that were reversed and caused significant problems. The R^2 were both exceptionally poor at, .081 and .079. As such these two items were deleted from further analysis. This was similar to the customer cleanliness items. The two remaining employee cleanliness items were examined with olfaction as this made theoretical sense in a grocery retail setting. This merged the employee cleanliness and E-olfaction items and was renamed the E-olfaction factor. There were 5 items in this factor and it had an acceptable fit with the RMSEA of .076. However after careful analysis EO2 appeared problematic when examined with other factors and was taken out of analysis. This resulted in an excellent fit for the merged E-olfaction factor. ECLEAN3 had a R^2 just outside the recommended .4 but was kept in the analyses as recommended by Homburg et al. (2009). This gave an excellent fit, as per table 6.9

| Label | Item | Standardised Loading | Error Variance | t-value | R ² |
|---------|--|----------------------|----------------|---------|----------------|
| ECLEAN2 | The store has clean aisles and exists | .71 | .49 | 7.42 | .51 |
| ECLEAN3 | The store maintains clean food service areas | .63 | .61 | 6.30 | .39 |
| EO1 | The store has a pleasant smell. | .85 | .28 | 9.30 | .72 |
| EO2 | The aroma in this store is pleasant. | | | | |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 7.84 | .55 |

Fit: Chi-Square 2.11, *df* 2, *p*-value 0.34890, RMSEA 0.023, SRMR .024, GFI .99 NFI .99, CFI 1, CR .82, AVE .54, Cronbach's Alpha .82

Table 6.9 Employee Olfaction (E-olfaction)

E-olfaction was slightly different to the customer olfaction factor. ECLEAN2 was relevant for employees though CLEAN2 was not included in the Olfaction factor for customers. EO1 and EO2 are very similar items as are O1 and O2. For the Olfaction factor both items relating to aroma, O2 and O3, were included but for the E-olfaction factor, EO1 and EO3 are included.

6.6.2.4 Employee Music (E-music)

Employees questioned the research team what the difference was between EM1 and EM3. This was not surprising as it was asking if you thought the music was pleasant and if it was appropriate. When first examined E-music did not have a good fit and as a result an error covariance was permitted for EM1 and EM3, as employees did not perceive a difference between the two and they appeared to highly correlate. However when further examined, EM1 had a low R² of .25 if allowed to correlate with EM3. EM1 was then taken out of the analyses due to its low R². An acceptable level of fit was found for the two item scale. The AVE was .49, though the cut-off point it .5 but just below the requirement for reliability. Similarly Cronbach's Alpha was .65, near the cut of point of .7. See table 6.10 for model fit.

| Label | Item | Standardised Loading | Error Variance | t-value | R ² |
|--|--|----------------------|----------------|---------|----------------|
| EM1 | The music played in the store is pleasant | | | | |
| EM2 | The music in the store is played at an appropriate volume. | .71 | .50 | 6.22 | .50 |
| EM3 | The music played in the store is appropriate. | .69 | .52 | 6.08 | .48 |
| Fit*: Chi-Square 25.49, <i>df</i> 19, <i>p</i> -value 0.14519, RMSEA 0.060, SRMR .045, GFI .94 NFI .96, CFI .99, CR .65, AVE .49, Cronbach Alpha .65 | | | | | |

* Tested with Employee Design factor

Table 6.10 Employee Music (E-music)

Music is one of the few areas of environmental stimuli that has been researched in relation to employee behaviour. Baker et al. (1988) included a music item within their ambient factor and Newman et al. (1966) looked at music on employee productivity. Newman et al. (1966) research contained 20 items relating to music but was an experimental design. The two E-music items used for this research did not relate to either study. The E-music factor was similar to the customer's music factor found. However the music factor contained three music items whilst E-music contained two items. Both E-music items that were included for further research related to the appropriateness of the music. Most recently Skandrani et al. (2011) found music to be an important environmental stimuli for employees. However their research was qualitative in nature and does not allow for direct comparisons.

6.6.2.5 Employee Lighting (E-lighting)

ELI1 was deleted from the lighting factor because it had an R² of 0.11. E-lighting fit statistics were excellent when examined with E-olfaction, as per table 6.11.

| Label | Item | Standardised Loading | Error Variance | t-value | R ² |
|-------|--|----------------------|----------------|---------|----------------|
| EL1 | The overall lighting level in the store is appropriate | | | | |
| EL2 | The lighting creates a comfortable working atmosphere | .89 | .20 | 9.77 | .80 |
| EL3 | The lighting is excellent at the store. | .89 | .21 | 9.57 | .79 |

Fit*: Chi-Square 7.21, *df* 8, *p*-value 0.51377, RMSEA 0.000, SRMR .030, GFI .98 NFI .98, CFI 1.00, CR .88, AVE .79, Cronbach's Alpha .88

*Tested with Employee Olfaction factor

Table 6.11 Employee Lighting (E-lighting)

Baker et al. (1988) had one lighting item that was a part of their ambient factor. This related to the lighting being bright. Their ambient factor does not relate to the E-lighting factor found. Oldham and Rotchford (1983) suggested darkness as a general office characteristic which related to illumination levels and wall colours. However it was the researcher who evaluated the characteristics of the office and not the employees themselves.

6.6.2.6 Second Order Factor Model of the Employee Environmental Stimuli

In summary, ELAY1, ELAY4, EC3, DE2, ECLEAN1R, ECLEAN4R, EO2, EM1 and EL1 were deleted from further analysis and this left 17 items. Similarly to the customer environmental stimuli construct, the next stage was to examine the entire employee environmental stimuli construct with its sub-factors. As noted with the literature chapter these factors relate to Bitner's (1992) servicescape construct and related to the Davis (1984) proposed framework from the work climate literature. The E-design factor, E-music factor, E-lighting factor, E-olfaction factor and E-layout factor were all included and the second order model had a good fit, as per

figure 6.3 below. The fit indices were as follows, Chi-square 168.21, df114, *p*-value .00073, RMSEA .070, SRMR .056, NFI .95, CFI .98.

Having confirmed the items for each of the sub-factors for employee environmental stimuli construct, the items were aggregated in SPSS to form the sub-factors and retested in LISREL. See table 6.12 and figure 6.4. This resulted in an excellent fit.

| <i>Construct</i> | <i>Sub-Factor</i> | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|--|--------------------|-----------------------------|-----------------------|----------------|----------------------|
| Employee Environmental Stimuli | E-design Factor | .91 | .16 | 11.39 | .84 |
| | E-olfaction Factor | .85 | .28 | 10.08 | .72 |
| | E-music Factor | .59 | .65 | 6.19 | .35 |
| | E-lighting Factor | .82 | .32 | 9.64 | .68 |
| | E-layout Factor | .79 | .38 | 9.01 | .62 |
| Fit: Chi-Square 1.16, <i>df</i> 5, <i>p</i> -value 0.94912, RMSEA 0.000, SRMR.011, GFI 1.00, NFI 1.00, CFI 1.00, CR .89, AVE .64, Cronbach's Alpha .88 | | | | | |

Table 6.12 Employee Environmental Stimuli Construct

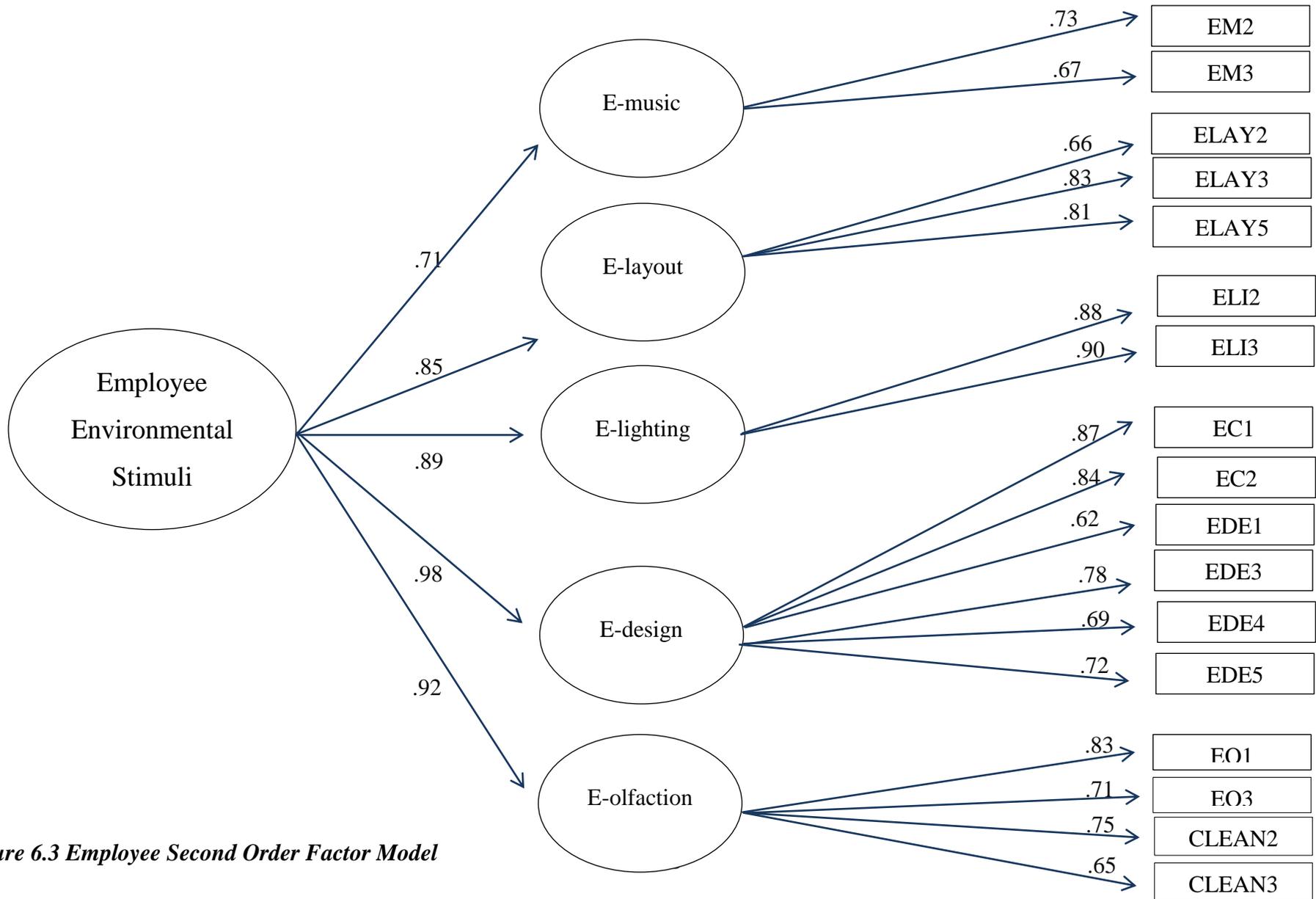


Figure 6.3 Employee Second Order Factor Model

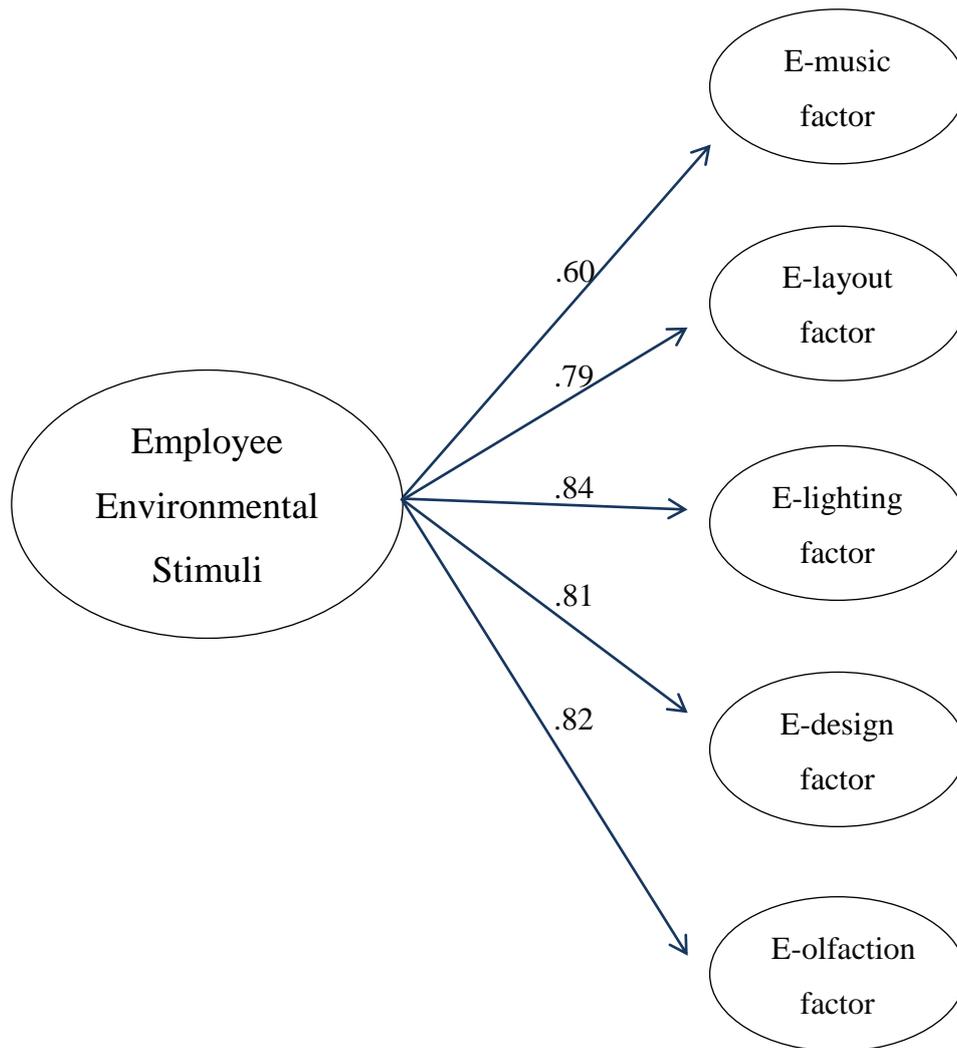


Figure 6.4 Employee Environmental Stimuli Construct after Aggregation

E-lighting had appeared problematic with other factors when examined (see appendix 4). Similarly the lighting factor for customers impacted on RMSEA for the second order factor model. It is worth noting that lighting was problematic for both employees and customers. Both E-lighting factor and lighting factor contained the same items and were both a two item factor. E-music factor was also a two item factor and had a low R^2 of .35. As mentioned having a factor with only two items is not ideal and this may be why these three, lighting, E-lighting and E-music factors did not fit the data as well as other factors that contained more than two items. However, it was deemed acceptable to include them in the analysis as they are

theoretically insightful and research has used two factor items in the past (Harris and Ezeh, 2008, Pollack, 2009).

It should be noted that employee responses had not been aggregated before this point of analysis, whilst customer responses had. This resulted in customer responses being aggregated twice. This may contribute to the poor RMSEA of .145 for the customer environmental stimuli model and not for the employee environmental stimuli model. As noted, the second order model for Customer environmental stimuli model was at an acceptable level of RMSEA of .076, as per figure 6.1.

6.6.3 PAD Customers

It was noted early on that PAD may be problematic for analysis Firstly, the layout of the questionnaire may have influenced customer responses, even though good practice in instrument design suggests mixing types of questions to mitigate respondent fatigue (MacKenzie and Podsokoff, 2012). Customers found the Likert scales were easy to understand but when it came to the end of the questionnaire, having spent some time on answering Likert style questions, customers were confused by the semantic scaling. Secondly, the nature of the utilitarian environment may have been problematic as customers may not have experienced emotional responses in a grocery retail environment as they may do in hedonic environments. However, as customers spend longer in this type of utilitarian environment compared with petrol stations or dry cleaners, it was felt important to examine the PAD in a grocery retail context.

When data was being imputed it was found that many customers did not answer the PAD questions and had left them blank. Due to the level of missing data on this question it was not suitable to aggregate customer responses to the employee level. It was found that 86 cases were missing above 50% of the PAD items. Table 6.13 identifies the level of missing data that occurred for each item of PAD at the customer level.

| | | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| Pleasure Items | P1 | P2 | P3 | P4 | P5 | P6 |
| <i>Missing cases</i> | 2% | 10.6% | 10.6% | 10.5% | 9.3% | 8% |
| Arousal Items | A1 | A2 | A3 | A4 | A5 | A6 |
| <i>Missing cases</i> | 6.4% | 12.4% | 10.2% | 10.9% | 7.6% | 11.5% |
| Dominance Items | D1 | D2 | D3 | D4 | D5 | D6 |
| <i>Missing cases</i> | 10.2% | 8.4% | 7.8% | 11.6% | 9% | 10.1% |

Table 6.13 % of Missing cases of PAD for customers

Another difficulty in assessing the PAD may have been due to the type of service that was being examined. As mentioned in Chapter 1 services can be hedonic or utilitarian in nature. Though customers can spend considerable time in a grocery retail store environment they are not driven by emotional motives in this utilitarian environment. Customers are there to fulfil a need in an efficient and deliberate manner (Babin et al., 1994). Research that has found some dimensions of the PAD to be useful have focused on environments that can be considered more hedonic in nature due to consumers being recreational shoppers; CD store (Tai and Fung, 1997), gift shop (Mattila and Wirtz, 2001), shopping mall (Chebat and Michon, 2003), theme parks (Bigné et al., 2005) and restaurants (Kim and Moon, 2009).

In examining furniture stores and garden stores Kenhove and Desrumaux (1997) indicated that their CFA showed serious problems concerning unidimensionality of their pleasure and arousal dimensions and found them to be highly correlated. Gilboa and Rafela (2003) identified arousal, pleasure and dominance in their research on grocery stores but used laboratory methods in their research. Machleit and Eroglu (2001, p. 103) conducted research on a mix of hedonic and utilitarian service settings, grocery stores, malls, department stores, bookshops and asked customers to 'think back to the atmospheres of the store'. They were able to identify the three PAD dimensions but their research focussed solely on emotional measures and used both hedonic and utilitarian settings.

Due to these complications in collecting the data and the nature of the utilitarian service environment, there were difficulties in analysing the PAD for customer respondents. The customer PAD factors were not identified for this research. This led to the hypotheses 11, 12 and 13 not being examined for this research.

6.6.4 PAD Employees

For employees there was significantly less missing data than for customers. Of particular interest is the layout of the PAD question on the employee questionnaire. For employees it was at the beginning of the questionnaire. Employees may have spent more time reading it and were able to answer it due to it being at the beginning of the questionnaire. Only 4 employees were missing above 50% of the PAD items. Though there was a significantly small quantity of missing data for employees there were still difficulties in identify the PAD dimensions.

Firstly, though employees had a better response than customers deletion of employee responses would have left too few dyadic data for the rest of the model. It was essential to retain as many employees as possible to match with customers. As the missing data on employee questionnaires were focussed on the PAD questions alone it was not deemed appropriate to delete employee responses.

A separate analysis was done looking solely at the employee and manager responses on the PAD dimensions. This was done in SPSS as LISREL 8.8 did not provide meaningful results because the model failed to converge. There were 27 managers that could not be matched with customers as they had not been working on the tills. However they answered the same questions as the employees who were working on the tills. This resulted in a data set of 130 in total. Exploratory factor analysis was carried out to identify the factors. According to Newman (2007, p. 22) ‘an orthogonal Varimax rotation facilitates the identification of a simple but meaningful structure of factors.’ Initially four factors were identified that contained a mix of the items belonging to the three dimensions of PAD. There was no theoretical justification for the four factors and further analysis was carried out.

Each theoretically proposed dimension was examined as its own factor. Dominance formed a two factor solution, with two of the reversed items, D3R and D4R, forming their own factor. These were removed which resulted in what appeared to be a reasonable 4 item factor. However D6R was a reversed item and even though it had been recoded it was appearing as a negative covariance among the other three items. There was no theoretical justification for this and it was removed, resulting in a three item factor for dominance. This dominance dimension had a Cronbach’s Alpha of

.68, just below the recommended cut off of .7. All communalities were above .599 and item loadings are shown in table 6.4.

| Dominance | Item loadings |
|-----------|---------------|
| D1 | .781 |
| D2 | .774 |
| D5 | .789 |

Table 6.14 Dominance for Employees

The pleasure dimension appeared to be a single factor with all six items. The Cronbach's Alpha was excellent at 0.891 and communalities were all above .46. See table 6.15 for item loadings.

| Pleasure | Item loadings |
|----------|---------------|
| P1 | .835 |
| P2R | .682 |
| P3R | .892 |
| P4R | .733 |
| P5 | .832 |
| P6 | .871 |

Table 6.15 Pleasure for Employees

The arousal dimension was more complex and formed a two factor solution, though there was no clear theoretical justification for why this would happen. EA5 had a negative correlation and as there was no justification for this, it was deleted from further analysis. EA6 crossloaded across both factors and was deleted. This left a two factor solution for arousal. See table 6.16. Communalities were above .585, however the Cronbach's Alpha for arousal (1) was .229 and for arousal (2) was .823, thus suggesting that arousal (2) was more reliable than arousal (1).

| | |
|-------------|------|
| Arousal (1) | |
| A1 | .748 |
| A3 | .781 |
| Arousal (2) | |
| A2 | .912 |
| A4 | .910 |

Table 6.16 Arousal for Employees

Having explored the factors and identified three, further analysis was carried out to ensure that they were separate factors. Table 6.17 shows the results of the rotated component matrix when the three proposed factors are examined together.

| | Component | |
|-----|-----------|-------|
| | 1 | 2 |
| A2 | -.641 | .499 |
| A4 | -.686 | .463 |
| D1 | -.495 | .635 |
| D2 | | .854 |
| D5 | -.408 | .610 |
| P1 | .815 | |
| P2R | .533 | -.513 |
| P3R | .779 | -.466 |
| P4R | .671 | |
| P5 | .830 | |
| P6 | .840 | |

Table 6.17 PAD for Employees

Table 6.17 illustrates the poor results for the PAD. There are no clear factors forming and using reversed items appeared to cause difficulties in interpreting the data. In their research Tai and Fung (1997) and Kim and Moon (2009) used Likert scales in their approach to identifying the pleasure and arousal dimensions. Both researchers found this to be an appropriate measure for the dimensions and were clearly able to identify pleasure and arousal as separate factors. Future research should perhaps consider this method as an alternative approach. Due to the above mentioned

complications in collecting the PAD data this led to difficulties in analysing the PAD data. PAD factors were not identified for this research and will not be further examined with the proposed model. This led to Hypotheses 11, 12 and 13 not being examined.

6.6.5 Customer Satisfaction

The items for the customer satisfaction factor have been used frequently in past research (Dietz et al. 2004, Homburg and Stock, 2004, Anselmsson, 2006). Time and time again they have been validated and found to be very reliable (Dietz et al. 2004, Chi and Gursoy, 2009, Wu and Liang, 2009). As noted the customer satisfaction construct is a tried and tested measure. However there were considerable cross loadings for CS1 and CS2 within LISREL. Within the questionnaire respondents were asked to rate their satisfaction with the till operator. It was also observed that many respondents found the item CS7 to be slightly problematic and was not directly related to till operators. Respondents indicated to the research team that as they were rating their satisfaction with the till operator, they did not feel that they were the ones that resolved the problems if they arose. Initially analysis was run with all items for CS but due to the considerable cross loadings CS1, CS2 and CS7 were then deleted from further analysis. This led to an excellent fit, as per table 6.18.

| <i>Label</i> | <i>Items</i> | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|--------------|--|-----------------------------|-----------------------|----------------|----------------------|
| CS1 | Providing fast service to me. | | | | |
| CS2 | Being courteous and friendly | | | | |
| CS3 | Providing an accurate service for me | .87 | .25 | 10.53 | .75 |
| CS4 | Willingness to help me | .93 | .13 | 11.96 | .87 |
| CS5 | Making me feel secure about my transactions. | .89 | .21 | 10.95 | .79 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.88 | .69 |
| CS7 | Resolving problems quickly for me | | | | |

Fit, Chi-Square 1.76, *df* 2, *p*-value 0.41377, RMSEA 0.000, SRMR .01, GFI .98, NFI .99, CFI 1.00, CR .93, AVE .77, Cronbach's Alpha .92

Table 6.18 Customer Satisfaction

As mentioned customer satisfaction is frequently researched. However a range of items have been incorporated into the customer satisfaction factor. Hightower et al. (2002) had an overall satisfaction factor which contained five items and related to satisfaction at a game, Wangenheim et al. (2007) used a two item factor, with one item related to behavioural intentions, Chi and Gursev (2009) used a three item factor which looked at delight and expectations in a hotel stay, Yee et al. (2011) used a four item factor, with one item relating to pricing, and Dietz et al. (2004) used a seven item factor which examined satisfaction with bank tellers. Customer Satisfaction in this study ended up with four items and was found to be highly reliable.

6.6.6 Service Quality

Frequently in the literature an overall service quality factor is used, despite the evidence that service quality is multidimensional (Pollack, 2009, Tortosa et al., 2009). A one-factor model on which all 10 items loaded on the quality construct was

examined first. As expected, fit statistics for this model were poor, chi-square 260.74, df= 27, p-value= .00000, RMSEA .300, thus indicating that it is potentially a multidimensional factor.

Previous research has related service quality to elements of employee service quality (Baker et al., 1994, Yee et al., 2011), interactive quality (Brady and Cronin Jr, 2001, Tortosa et al., 2009) or overall quality (Reimer and Kuehn, 2005, Kim and Moon, 2009). This research termed this factor as Employee Quality. A second quality factor that related to the overall design of the environment has been termed physical environment quality (Brady and Cronin Jr, 2001) or tangible quality (Parasuraman et al., 1988) was also included. For this research this was called Design Quality in order to differentiate it from the environmental stimuli construct being examined. A two factor solution was found consisting of Employee Quality items and Design Quality items. The item QE3 was removed from analysis as it had considerable cross loadings that had no theoretical justification, and it is likely that till operators cannot offer much help to customers in a routine grocery shop. Employee Quality had an acceptable level of fit, as per table 6.19.

| <i>Label</i> | <i>Items</i> | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|---|---|-----------------------------|-----------------------|----------------|----------------------|
| QE1 | Employees give me personal attention. | .90 | .18 | 11.36 | .82 |
| QE2 | I am treated well by employee | .91 | .17 | 11.46 | .83 |
| QE3 | Employees are willing to help me | | | | |
| QE4 | The store offers high-quality service | .88 | .23 | 10.76 | .77 |
| QE5 | Employees are not too busy to respond to me | .77 | .40 | 8.90 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .25 | 10.61 | .75 |
| Fit: Chi-Square 6.99, df 5, p-value 0.22157, RMSEA 0.064, SRMR .017, GFI .97, NFI .99, CFI 1, CR .93, AVE .75, Cronbach's Alpha .93 | | | | | |

Table 6.19 Employee Quality

Employee Quality related specifically to employees giving service to the customer. Brady and Cronin (2001) used a two factor item for their service quality sub factor and Baker et al. (1994) used a five item factor for their service quality inferences. Hu and Jasper (2010) used a combination of items from both authors and had a six item factor. The Employee Quality factor agrees with previous research and was found to be very reliable.

Design Quality was the second factor relating to service quality. Brady and Cronin (2001) and Pollack (2009) used the same two item factor for their physical environment quality sub-factor. Chen et al. (2009) used a six item factor for their environmental quality which they based from Brady and Cronin (2001). Design Quality had an excellent fit and is in line with past research, as per table 6.20

| <i>Label</i> | <i>Items</i> | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|--|---|-----------------------------|-----------------------|----------------|----------------------|
| QD1 | The arrangement of this stores interior layout is better. | .85 | .27 | 9.95 | .73 |
| QD2 | This store's aisles are more spacious | .87 | .24 | 10.31 | .76 |
| QD3 | The design of this store's checkout facilities is better | .75 | .44 | 8.25 | .56 |
| QD4 | The design of this store's front is better | .75 | .44 | 8.27 | .56 |
| Fit: Chi-Square 1.59, <i>df</i> 2, <i>p</i> -value 0.45260, RMSEA 0.000, SRMR .016, GFI .99, NFI .99, CFI 1, CR .88, AVE .65, Cronbach's Alpha .87 | | | | | |

Table 6.20 Design Quality

6.6.7 Customer Loyalty

Within the literature customer loyalty is considered to be a two factor construct. A one-factor model on which all 9 items loaded on the customer loyalty construct was examined first. As expected, fit statistics for this model were poor with Chi-Square

of 120.09, *df* 27, *p*-value 0.00000 and RMSEA 0.190. A two factor solution, as per the literature, was then run which was significantly better.

When first examined Customer Loyalty Behavioural (CLB) did not have a good fit. An error covariance was permitted for CL5 and CL6, as customers did not perceive a difference between the two and they appeared to highly correlate. This was not surprising as it was asking if you would say positive things about the store (CL5) or recommend the store (CL6), which participants perceived to be very similar questions. Within the Customer Loyalty Attitudinal (CLA) factor, CL1 had significant cross loadings across three of the CLA and CLB items. CL1 was taken out and it was very encouraging that there were no cross loadings on the two factors. This indicated that they were measuring two separate factors, attitude and behaviour of the loyalty construct.

Zeithaml et al. (1996) proposed a five item behavioural loyalty factor. In later research Harris and Ezech (2008) postulated a single loyalty factor that contained six items. This was their endogenous variable and they found it to be reliable. Though they did not specify if they were looking at attitudinal or behavioural loyalty, the majority of their items related to behavioural loyalty intentions as it was based on research by Zeithaml et al. (1996). Similarly, Yee et al. (2011) use a five item factor for their customer loyalty factor but do not specify if it is attitudinal or behavioural. However their items relate to the behavioural loyalty factor as suggested by Zeithaml et al. (1996). CLB has a very good fit and is in line with previous research, as per table 6.21.

| <i>Label</i> | <i>Items</i> | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|--------------|--|-----------------------------|-----------------------|----------------|----------------------|
| CL5* | Say positive things about the store to other people | .88 | .22 | 10.93 | .77 |
| CL6* | Do more business with the store in the next few months | .86 | .25 | 10.62 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.08 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .10 | 12.51 | .90 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .43 | 8.66 | .57 |

Fit: Chi-Square .62, *df* 4, *p*-value 0.96057, RMSEA 0.000, SRMR .0050, GFI .99, NFI 1, CFI 1, CR .94, AVE, .78, Cronbach's Alpha .95

* Error covariance set for CL5 and CL6, t-value 4.09

Table 6.21 CLB

As noted, considerable research focuses on a general loyalty factor even though the literature has strongly theorised the loyalty factor to consist of two related but distinct factors. However, Chen et al. (2009) specified that they were examining attitudinal loyalty and used a three item scale that was based on Dick and Basu's (1994) conceptual framework relating to attitudinal loyalty. Harris and Ezech (2008) included an item under their loyalty factor that related to visiting the store even if others are cheaper. Zeithaml et al. (1996) had not specified this in their behavioural loyalty factor.

CL4 relates to visiting the store even if others are cheaper and is very similar to Harris and Ezech (2008) item, however it loads on the CLA factor. This research examines both attitudinal and behavioural research whilst Harris and Ezech (2008), though they did not specify, concentrated on behavioural loyalty. When examined with the CLB factor, CL4 does not load on the CLB factor but on the CLA factor. CLA, has an excellent fit and corresponds with research by Chen et al. (2009). Table 6.22 shows the model statistics.

| <i>Label</i> | <i>Items</i> | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|--------------|---|-----------------------------|-----------------------|----------------|----------------------|
| CL1 | I am a loyal customer of this store | | | | |
| CL2 | This store is the first choice for me among the same types of stores | .81 | .34 | 8.89 | .66 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .85 | .28 | 9.46 | .72 |
| CL4 | I will visit this store even if others are cheaper | .78 | .40 | 8.42 | .60 |

Fit*: Chi-Square 14.01, *df* 13, *p*-value 0.37341, RMSEA 0.028, SRMR .035, GFI .96, NFI .97, CFI 1, CR .85, AVE .66, Cronbach's Alpha .85

* Tested with Customer Satisfaction factor

Table 6.22 CLA

6.6.8 Employee Satisfaction

ES8R was a reversed item and similarly to other reversed items had a low R² of .19 and was therefore deleted from further analysis. ES8R related to quitting ones job, perhaps it is not surprising that this item was problematic as during the period of research, March-April 2011, there was an economic downtown (ESRI, 2012). This meant there were very limited job opportunities and people did not think about switching their jobs. Furthermore this may have impacted ES2 which had a low R² of .38. ES2 related to intending to work for a different company. As there were limited jobs on offer or employees were treated well, employees may not have even considered working for another company as an option. Both items were taken out of the analyses after careful theoretical review. The CFA had a very good fit, as per table 6.23

| <i>Label</i> | <i>Items</i> | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|--|---|-----------------------------|-----------------------|----------------|----------------------|
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.31 | .73 |
| ES2 | I do not intend to work for a different company in the foreseeable future | | | | |
| ES3 | I like my job | .90 | .19 | 11.25 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 | .34 | 9.56 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .49 | 7.89 | .51 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.36 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.27 | .81 |
| ES8 | I frequently think of quitting this job | | | | |
| Fit: Chi-Square 10.02, <i>df</i> 9, <i>p</i> -value 0.34863, RMSEA 0.034, SRMR .022, GFI .97, NFI .99, CFI 1.00, CR .93, AVE .69, Cronbach's Alpha .92 | | | | | |

Table 6.23 Employee Satisfaction

Similarly to the customer satisfaction factor, the employee satisfaction factor has been used frequently in past research (Homburg and Stock, 2004, Wangenheim et al., 2007, Homburg et al., 2009). Homburg and Stock (2004) used a six item factor to measure job satisfaction, Chi and Gursoy (2009) used a four item factor which appeared to be based on the Homburg and Stock (2004) research, Wangenheim et al. (2007) used a three item factor and Homburg et al. (2009) used a three item factor for job satisfaction. Kantabutra (2011) used a seven item factor, however this was not similar to any of the other employee satisfaction factors mentioned.

6.6.9 Employee Loyalty

An error covariance was permitted for EL1 and EL5 as they highly correlated. The items related to the store remaining a leading store (EL1) and the fate of the shop (EL5). Employees perceived these two items to be very similar questions and were

allowed to correlate. Parish et al. (2008) allowed items to correlate in their research. Though EL4 had a low R² it was kept in for further analysis to preserve the conceptual comprehensiveness, similar to Homburg et al. (2009). This gave an excellent fit, as per table 6.24

| <i>Label</i> | <i>Items</i> | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|--------------|---|-----------------------------|-----------------------|----------------|----------------------|
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .29 | 9.71 | .71 |
| EL2 | I speak highly of the shop in which I work to my friends | .78 | .40 | 8.75 | .60 |
| EL3 | I feel proud to work at this store | .90 | .19 | 10.91 | .81 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .67 | 5.86 | .33 |
| EL5* | I care about the fate of the shop in which I work | .85 | .28 | 9.86 | .72 |

Fit: Chi-Square 1.37, *df* 4, *p*-value 0.84987, RMSEA, 0.000, SRMR .012, GFI .99, NFI 1, CFI 1, CR .89, AVE .63, Cronbach's Alpha .88

* Error covariance set for EL1 and EL5, t-value 1.81

Table 6.24 Employee Loyalty

Similarly to employee satisfaction, employee loyalty is well researched in the literature (Currivan, 1999, Gelade and Young, 2005, Paulin et al., 2006). Currivan (1999) used a four item factor which they called organisational commitment, Paulin et al. (2006) used a three item factor which they also called organisational commitment and Gelade and Young (2005) used a three item factor called commitment. Each of the items used in the studies were comparable and the employee loyalty factor was in line with past research.

6.6.10 Financial Performance

Data on the financial performance was collected from 27 managers of the stores and was linked across the employee level of analysis. There were five items for the financial performance factor. The RMSEA was very poor for the financial performance factor at .189. The GROWTH item had a R² of .17 and was deleted from further analysis. Removal of the item led to a worse RMSEA of .265 suggesting it could be a two factor measure: FOOT relating to the average footfall of the store and the other three items related to sales, market share and scanning margin.

Within the literature there has been many different ways to collect financial data. Homburg et al. (2011) used a single item for price positioning, Maxham et al. (2008) used the average transaction value of customers, Schneider et al. (2005) used actual sales data and Yee et al. (2011) used return on sales, return on investment and return on assets which was also used by Schneider et al. (2003). Past research has focussed on sales, market share and scanning margin. These three items were examined and found to have a good fit. Footfall had been included in this research based on the interviews carried out with managers. Based on this Footfall was taken out and this led to an excellent fit for the financial performance measure factor, as per table 6.25

| <i>Label</i> | <i>Items</i> | <i>Standardised Loading</i> | <i>Error Variance</i> | <i>t-value</i> | <i>R²</i> |
|--|---|-----------------------------|-----------------------|----------------|----------------------|
| GROWTH | The sales growth | | | | |
| SHARE | The market share | .82 | .32 | 8.62 | .68 |
| PROFIT | The profit growth | .87 | .23 | 9.26 | .77 |
| MARGIN | The average scanning margin for the store | .64 | .59 | 6.57 | .41 |
| FOOT | The average footfall of the store | | | | |
| Fit*: Chi-Square 26.05, <i>df</i> 26, <i>p</i> -value 0.46039, RMSEA 0.004, SRMR .038, GFI .94, NFI .96, CFI 1.00, CR .82, AVE .61, Cronbach's Alpha .80 | | | | | |

* Tested with Employee Satisfaction factor

Table 6.25 Financial Performance

6.7 Hypotheses Restatement

Having confirmed each of the factors in the proposed model through the use of CFA in LISREL, the second stage of analysis was carried out as proposed by Anderson and Gerbing (1988). The proposed model, as per figure 5.2 in chapter five, contains the links in the proposed model that were to be examined. However, links relating to the PAD were not examined. As highlighted, PAD was not identified due to the utilitarian nature of the service environment and the difficulties in analysing the data. Due to this the proposed hypotheses of 11a, 11b, 11c, 12a, 12b, 12c, 13a, 13b and 13c could not be examined. The proposed model without the PAD links is depicted in figure 6.5.

Before examining the proposed model several adjustments to the hypotheses should be highlighted. See table 6.26 for the revised list of hypotheses that were examined. As mentioned, service quality was found to be two dimensional. This was a significant finding resulting in H4, H5 and H9 being altered. H4, was reworded to the following,

H4a Employee Loyalty is positively related to Design Quality

H4b Employee Loyalty is positively related to Employee Quality

Hypothesis 5 was reworded to,

H5a Design Quality is positively related to Customer Satisfaction

H5b Employee Quality is positively related to Customer Satisfaction

Hypothesis 9 was reworded to,

H9a Environmental Stimuli are positively related to Design Quality

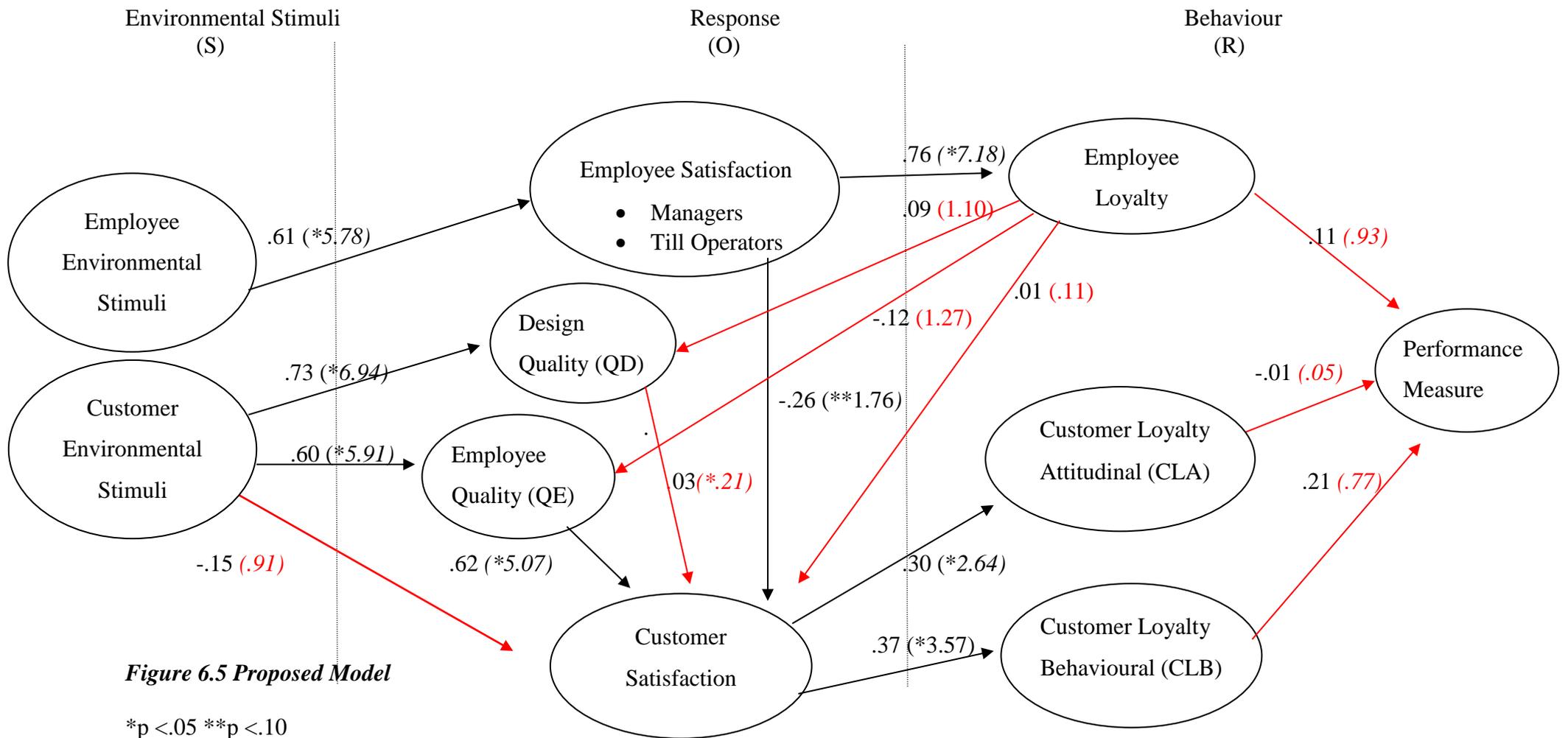
H9b Environmental Stimuli are positively related to Employee Quality

The model with the necessary changes to H4, H5, H9 and without the PAD is displayed in figure 6.5.

| Hypothesis | Relationship | Significance | Standardised loadings | t-values |
|-------------|---|--------------------|-----------------------|----------|
| H1 | Employee Satisfaction- Employee Loyalty | Significant | .76 | 7.18* |
| H2 | Employee Satisfaction – Customer Satisfaction | Significant | - .26 | 1.76*** |
| H3 | Employee Loyalty- Customer Satisfaction | Not significant | .01 | .11 |
| H4a | Employee Loyalty –Service Quality | Not significant | .09 | 1.10 |
| H4b | Employee Loyalty –Design Quality | Not significant | -.12 | 1.27 |
| H5a | Design Quality – Customer Satisfaction | Not significant | .03 | .21 |
| H5b | Employee Quality – Customer Satisfaction | Significant | .62 | 5.07* |
| H6a | Customer Satisfaction - Customer Loyalty Attitudinal | Significant | .30 | 2.64** |
| H6b | Customer Satisfaction - Customer Loyalty Behavioural | Significant | .37 | 3.57* |
| H7a | Customer Loyalty Behavioural - Financial Performance | Not significant | .01 | .05 |
| H7b | Customer Loyalty Attitudinal- Financial Performance | Not significant | .21 | .77 |
| H8 | Employee Loyalty-Financial Performance | Not significant | .11 | .93 |
| H9a | Environmental Stimuli- Design Quality | Significant | .73 | 6.94* |
| H9b | Environmental Stimuli- Employee Quality | Significant | .60 | 5.91* |
| H10a | Environmental Stimuli – Customer Satisfaction | Not significant | .15 | .91 |
| H10b | Environmental Stimuli – Employee Satisfaction | Significant | .73 | 6.96* |

* significant at the $p > .01$ level, ** $p > .05$ level, *** $p > .10$ level

Table 6.26 List of Hypotheses and Significant Links



In the proposed model the relationships shown in red are not significant. These are highlighted in the model, see figure 6.5 and table 6.26. This shows that some of the specified hypotheses are not supported. Based on this model with the insignificant links the overall fit criterion was NFI .87, CFI .95, SRMR .15 and RMSEA .057. The ratio of χ^2 1209.29 over *df* 925 is 1.3. Except for the SRMR, all other fit measures indicated an acceptable fit. Error covariance was set for CLA and CLB and the t-value was 5.32. This was set as both CLA and CLB relate to customer loyalty and a relationship between the two is expected. Parish et al (2008) also allowed items to correlate in their research because of similarity.

6.8 Research Objectives Findings

Each of the hypotheses relating to the objectives will be examined in more detail next. Once they have been examined the model will be rerun with the insignificant links removed. This will provide a clearer representation of the model results.

6.8.1 Research Objective One Findings

Research objective one was to examine the links within the SPC. H1 proposed that employee satisfaction positively impacted employee loyalty. This was the strongest link in the model. Employee satisfaction explained 58% of the variance in employee loyalty. Furthermore, employee environmental stimuli had a significant indirect effect on employee loyalty through employee satisfaction. Employee environmental stimuli accounted for 46% variance explained in employee satisfaction. Loveman

(1998) found that employee stated loyalty was positively related to employee satisfaction but did not find a relationship with employee tenure. Eskildesen and Nussler (2000) using PLS found a significant positive relationship between employee satisfaction and employee loyalty. This research agrees with previous research in this finding.

H2 is the most commonly discussed and researched of the links within the SPC. Evidence has suggested that the satisfaction mirror exists (Rucci et al., 1998, Wiley, 1991, Schneider et al., 2000). However, Silvestro and Cross (2000) who examine grocery retailing did not find a significant link. Furthermore the majority of research asks only customers or employees for their perceptions of the satisfaction link from both perspectives. Dean (2004) highlighted the lack of account taken into consideration of the complexity of many of the constructs in the SPC and that deeper analyses is needed. Most insightful to the employee-customer satisfaction link has been the use of dyadic data, where customer satisfaction ratings are taken from customers and employee satisfaction ratings are taking from the employees. This research is one of few studies inspecting the employee-customer satisfaction link through the use of SEM and matching dyadic data.

Most notably in the dyadic data research is a study by Homburg et al. (2009) who carried out research on the SPC and found no significant link for the proposed employee-customer satisfaction link. Kantabutra (2011), who used triadic data, found that staff satisfaction did not predict customer satisfaction. Wangenheim et al. (2007) and Chi and Gursoy (2009) both found a positive link, however although they

collected data from both sides of the dyad neither research matched up employee and customer responses.

This research found a significant link between employee satisfaction and customer satisfaction but not as suggested by earlier research. H2 proposed that employee satisfaction positively affected customer satisfaction. A small but significant negative correlation was found between employee satisfaction and customer satisfaction resulting in the H2 being disconfirmed. Due to the significance of this finding, the employee satisfaction and customer satisfaction link was looked at further in isolation.

In examining the employee satisfaction customer satisfaction link in isolation, the t-value was 2.95, indicating the link was significant at $p < .05$ level. The fit statistics for the model were excellent; NFI .97, CFI 1, SRMR .038 and RMSEA .000. The ratio of χ^2 32.70 over df 34 is .96. This would indicate that employee satisfaction does not affect customer satisfaction positively but rather increased employee satisfaction leads to decreased customer satisfaction. This is unusual and surprising as one would theoretically presume employee satisfaction leads to customer satisfaction.

As noted in chapter one, employee satisfaction relates to satisfaction with the job (Babin and Boles, 1998). However it is also considered to be cognitive and affective in nature (Mattila and Wirtz, 2006). Employees spend more time in the store and the measure of employee satisfaction relates to a more cognitive measure of their satisfaction with the job. Employees indicated they were satisfied with their job but

did not indicate what their current emotional state was when interacting with the customer. In examining the employee-customer link employee's emotional state or affective state should be further investigated. Employee's emotional display at the time of interaction should be examined. For example, in their research Groth et al. (2009) examined deep acting (genuinely displaying emotions) and surface acting (faking emotional display) of employees. They found (2009, p. 969) that 'results show that surface acting exerts negative effects when customers perceive it as such'. Customers may find that if an employee appears extremely satisfied that it is not genuine and this could cause negative affects for the customer. Hennig-Thurau et al. (2006) who carried out research on emotional cognition and emotional labour found that authenticity of employees emotional display rather than the extent of the display influenced customers emotions.

Pritchard and Silvestro (2005, p. 350) caution judgements by indicating that 'the drivers of satisfaction may not necessarily be the same as the drivers of dissatisfaction'. It would appear that the relationship between customers and employees is more complex than literature suggests (Silvestro, 2002). There are many other variables that should be taken into consideration when considering the employee-customer satisfaction link. Deep acting, surface acting and emotional labour (Hennig-Thurau et al., 2006, Groth et al., 2009) appear to play an important role in understanding the complex relationship and were not examined in this research. The nature of the service, hedonic or utilitarian, could also affect the link. This research examined a utilitarian service and a hedonic service, where customers seek experiential environments, could impact differently on the link, thus suggesting

that employee satisfaction will lead to customer satisfaction is not an adequate representation of the relationship.

Furthermore within the grocery retail industry there is trend towards less reliance on employee customer contact with grocery chains are increasingly using self-service tills (Silvestro and Cross, 2002). Silvestro and Cross (2002, p. 264) suggest that 'even when staff have direct contact with customers, such as at the checkout, customer priorities appear to be speed and accuracy of service rather than friendliness and personal care.

H3 proposed that employee loyalty is positively related to customer satisfaction. There was no significant relationship found. H4a and H4b related to employee loyalty being positively related to employee quality and design quality. No direct relationship was found either. Rust et al. (1996) proposed that a cycle of positive interactions occurs between employees and customers. Heskett et al. (1994) also proposed that employee loyalty relates to service quality and that service quality impacts customers positively. Though theoretically sound, there is mixed research to support these relationships. Loveman (1998, p. 25) highlighted in his research that 'stated measures of employee loyalty do not appear to be significantly correlated with customer satisfaction'. However he did note that employee tenure was positively and significantly related to customer satisfaction. Pritchard and Silvestro (2005) did find that service value and customer satisfaction were positively related to employee loyalty, but highlighted that employee loyalty was measured in terms of staff turnover. This was similar to Loveman's (1998) findings. Neither study examines employee stated loyalty as was examined in this research. Maxham et al.

(2008) highlighted that research examining the SPC has largely ignored employee perceptions and their evaluations, but did not examine the direct relationship between employee loyalty and customer satisfaction.

H6a and H6b relate to customer satisfaction positively affecting CLA and CLB. There was a slightly stronger link between customer satisfaction and CLB than customer satisfaction and CLA. Customer satisfaction explained 9% of the variance for CLA and 14% for CLB. Research relating to customer satisfaction and customer loyalty is primarily conclusive in nature. However the majority of research focuses on the customer satisfaction and CLB link as opposed to customer satisfaction and CLA link. Hallowell (1996) examined customer behavioural loyalty, and found a positive relationship with customer satisfaction. Han and Ryu (2009) highlighted the need for attention in examining attitudinal customer loyalty. They used SEM and found a positive significant link between customer satisfaction and attitudinal customer loyalty.

H7a and H7b related to CLA and CLB being positively related to financial performance. Similarly H8 proposes how employee loyalty is positively related to financial performance. There was no significant relationship for any of the hypotheses. In the literature there is mixed results of, firstly how financial performance should be measured and secondly if there is a direct link between customer or employee loyalty and financial performance. As mentioned, managers were cautious to give exact information, thus scales were used in the measurement of the financial data, which may have impacted on the results. The research was carried out during a global downturn which could also have impacted on the findings.

H1, H2, H6a, H6b provided insight into the links within the SPC. Using dyadic data provided a deeper understanding to the complex relationship between employee satisfaction and customer satisfaction, a key accepted link within the SPC. Furthermore a contribution was that employee loyalty could be explained by employee job satisfaction. It was also found that employee environmental stimuli had an indirect effect on employee loyalty. Objective three examines in more detail the relationship between the environmental stimuli and employee responses but first objective two will be examined.

6.8.2 Research Objective Two Findings

Research objective two related to evaluating the relationship between environmental stimuli and service quality. A significant finding of this research was that service quality was two distinct factors, design quality and employee quality. This resulted in changes to several hypotheses; in particular H5 and H9 becoming H5a, H5b, H9a, and H9b. H5a, H5b, H9a and H9b are closely related and will be looked at together. A depiction of the relationship between H9a, H9b, H5a and H5b is given in figure 6.6.

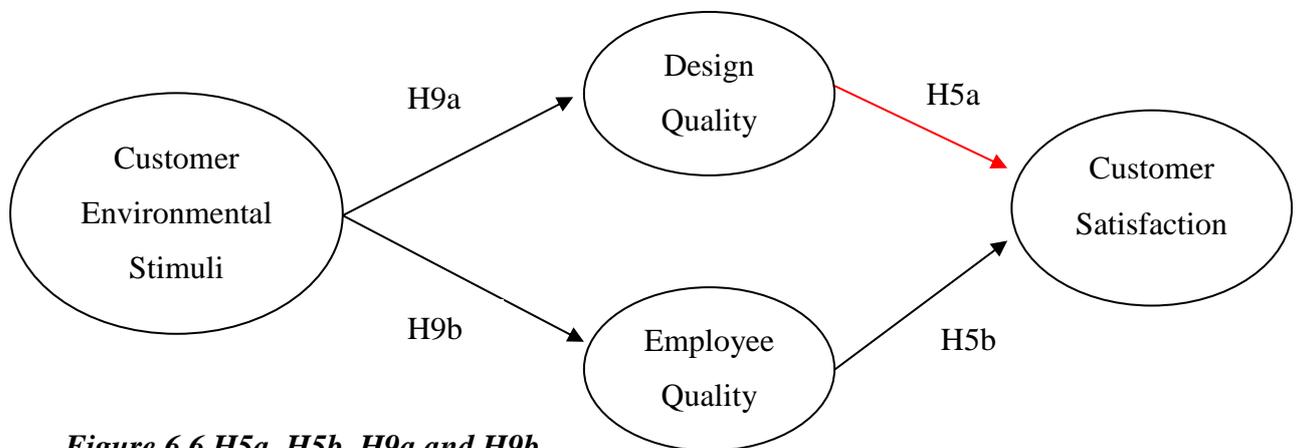


Figure 6.6 H5a, H5b, H9a and H9b
 → Indicates no significant relationship found

Tortosa et al. (2009) highlighted that service quality is based on customers evaluation of customer–employee interaction, the physical environment and the outcome. Though service quality has been considered to be multidimensional, considerable research has focused on a general service quality factor (Larivière, 2008, Yee et al., 2011). In the past elements of the environmental stimuli have been incorporated into an overall service quality construct (Parasuraman et al., 1988, Brady and Cronin Jr, 2001). Pollack (2009) incorporated three environmental stimuli factors: design, ambient conditions and physical environment quality as proposed by Brady and Cronin (2001) in their research on service quality. This suggests that environmental stimuli forms part of the service quality construct. However Brady and Cronin’s (2001) design sub-factor is almost identical to layout items that are used for measuring the layout sub-factor of the environmental stimuli construct.

H9a proposed that environmental stimuli positively impacted design quality and this was strongly supported. This clearly suggests that environmental stimuli are an antecedent to design service quality rather than components of general service quality. This contrasts with Brady and Cronin (2001) who suggested that the design (which is very similar to the layout factor and E-layout factor in this research) sub-factor is part of the service quality construct. Parasruaman et al. (1988) also incorporated tangible elements in their service quality construct. This finding is more in line with Reimer and Kuehn (2005) who found that the servicescape was an indicator of service quality. Their service quality factor was a two item factor and their servicescape factor contained 10 usable items. Baker et al. (1994) conducted experimental tests and suggested that three dimensions for the environmental stimuli, ambient, design and social factors, positively influenced service quality. Their

service quality factor contained five items that related to employees and store providing quality service. Baker et al. (1994) and Hooper et al. (2013) found that the servicescape dimensions were separate to service quality and that factors of the environmental stimuli preceded service quality. This research concurs with the above past findings that environmental stimuli are an antecedent to both employee quality and design quality.

H5a proposed that design quality would positively influence customer satisfaction. This was found to be insignificant. At first this is surprising as H5b found that employee quality had a significant effect on customer satisfaction. Tortosa et al. (2009) who examined the relationship between physical environment quality and customer satisfaction found no link between them, although they found a link for quality of outcome and quality of interaction on customer satisfaction. Their quality of interaction factor is very similar to the employee quality factor for this research. They highlight that interaction with personnel and the outcome they receive is valued by customers rather than quality of physical environment. This research corresponds with both their findings.

Customers may be more aware of interaction with employees and the service quality that they receive from employees within the service environment. Customers are more aware of the quality they receive from employees as they would be talking or directly interacting with employees. In this case, it was the till operators that were the employees that customers were interacting with. Thus, customers may not directly observe the quality of the design of the environment but rather their focus is on the quality they receive from employees.

Overall, research relating to service quality has found a positive link for a general service quality factor impacting customer satisfaction. In their research on service climate, which focussed on the impact of service quality on customer satisfaction, Schneider et al. (2009) found that service climate significantly impacted on customer satisfaction. Schneider and his colleagues had found similar results in the past (Schneider and Bowen, 1985, Schneider et al., 1998). There is strong evidence in the literature for the link of service quality and customer satisfaction (Larivière, 2008, Yee et al., 2010, 2011, Jayawardhena and Farrell, 2011, Hooper et al., 2013)

H9b related to customer environmental stimuli positively influencing employee quality and H5b related to employee quality positively influencing customer satisfaction. There is a strong and significant relationship between customer environmental stimuli and employee quality, with employee quality being the key determinant of customer satisfaction. This shows that there is a significant indirect effect between customer environmental stimuli and customer satisfaction through the mediating latent variable of employee quality. See table 6.27 for indirect effects.

| <i>Indirect Effects</i> | | |
|-------------------------|--------------------------------|--------------------------------|
| | Customer Environmental Stimuli | Employee Environmental Stimuli |
| Customer Satisfaction | .34 | -.15 |
| CLA | .10 | -.05 |
| CLB | .13 | -.05 |
| Employee Loyalty | ---- | .46 |

Table 6.27 Indirect Effects

It is reassuring that both direct and indirect effects demonstrate the positive influence of the environmental stimuli on behavioural intentions, for both customers and employees. The R² values indicated that employee quality accounted for 31% of the variance explained in customer satisfaction and that 36% variance in employee quality is explained by the customer environmental stimuli. Indirectly customer environmental stimuli accounts for 34% of the variance of Customer satisfaction. Furthermore customer environmental stimuli had an indirect effect on CLB and CLA accounting for 10% variance in CLA and 13% in CLB. This is particularly meaningful as it provides a wider understanding of customer behaviours and the influence that the environmental stimuli can have on customer loyalty, both attitudinal and behavioural. Similarly employee environmental stimuli explained 46% of the variance in employee loyalty. This is an exceptionally high percentage and clearly provides justification for a key theoretical argument formed in this research, that environmental stimuli positively influence employees in their behaviours. This ties the environmental stimuli with the SPC links, which were discussed under objective one, this connection being a key theoretical contribution of this research. Providing and demonstrating a deeper understanding of how the environmental stimuli influence the links within the SPC is a key finding, which relates to research objective three.

6.8.3 Research Objective Three Findings

Research objective three related to assessing the link between environmental stimuli and the emotional responses of customers and employees. A significant link was found for environmental stimuli having a positive effect on employees (H10b) but an

insignificant link was found for customers (H10a). As mentioned, though a direct relationship was not found for environmental stimuli affecting customers, an indirect relationship through employee quality was found to be significant.

H10b proposed that employee environmental stimuli positively impact on employee satisfaction. The R^2 values indicated that employee environmental stimuli accounts for 37% of the variance explained in employee satisfaction. There is very little empirical evidence in the literature relating to this link in service settings. Baker et al. (1988) examined branch facility design but did not relate it to employee satisfaction. Carlopio (1996) examined satisfaction with the physical environment in mainly a goods manufacturing industry. They did not differentiate between the work environmental stimuli and satisfaction factor, but rather incorporated it as one factor.

H10a proposed that the environmental stimuli construct, which consisted of design, lighting, layout, music and olfaction factors, would have a positive effect on customer satisfaction. No support was found for this link in the model. Previous research has focused on single elements of the servicescape and there has been very limited research examining all elements of the servicescape as proposed by Bitner (1992). Research examines individual factors, such as music or colour, influencing customer satisfaction through mediating variables such as, pleasure, arousal or service quality. Morrison et al. (2011) examined how music and aroma positively influenced customer satisfaction but through the mediating variables of pleasure and arousal. Wakefield and Blodgett (1994, 1996) examined how servicescape dimension influenced perceived quality which in turn positively influenced customer satisfaction. Wu and Liang (2009) did investigate a direct relationship between what

they called physical environmental factors and customer satisfaction. Their physical environment factor consisted of a five item factor relating to one lighting item, one temperature item, one cleanliness item, one colour item and an architecture item. They found no significant direct relationship between their physical environmental factor and customer satisfaction. However Wu and Liang (2009) found that the relationship was mediated through value. Each of the authors have clearly stated that factors of the servicescape influence customer satisfaction and is 'crucial' in determining satisfaction, yet few have found a direct link.

Due to employees spending more time in the service environment (Parish et al, 2009), employees may be more aware of some aspects of the environmental stimuli. This could perhaps explain why there is a significant link for environmental stimuli impacting employee satisfaction directly and not for customers. Environmental stimuli may not have a direct impact on customer satisfaction as customers may not be fully aware that it affects them. It could affect their subconscious rather than their conscious. As noted, there was a significant indirect relationship found between customer environmental stimuli and customer satisfaction through the mediating role of employee quality.

Due to the lack of research on examining the direct relationship between the global configuration of the environmental stimuli on customer satisfaction, it was felt further investigation was needed into this particular link of the overall model. The environmental stimuli-customer satisfaction link was looked at in isolation. In examining the link on its own, a positive significant link was found between environmental stimuli and customer satisfaction. Overall the fit statistics were

acceptable, Chi-square 49.32, df 26, p-value .00379, SRMR .060 NFI .94 and CFI .96, except for the RMSEA of .097. See figure 6.7.

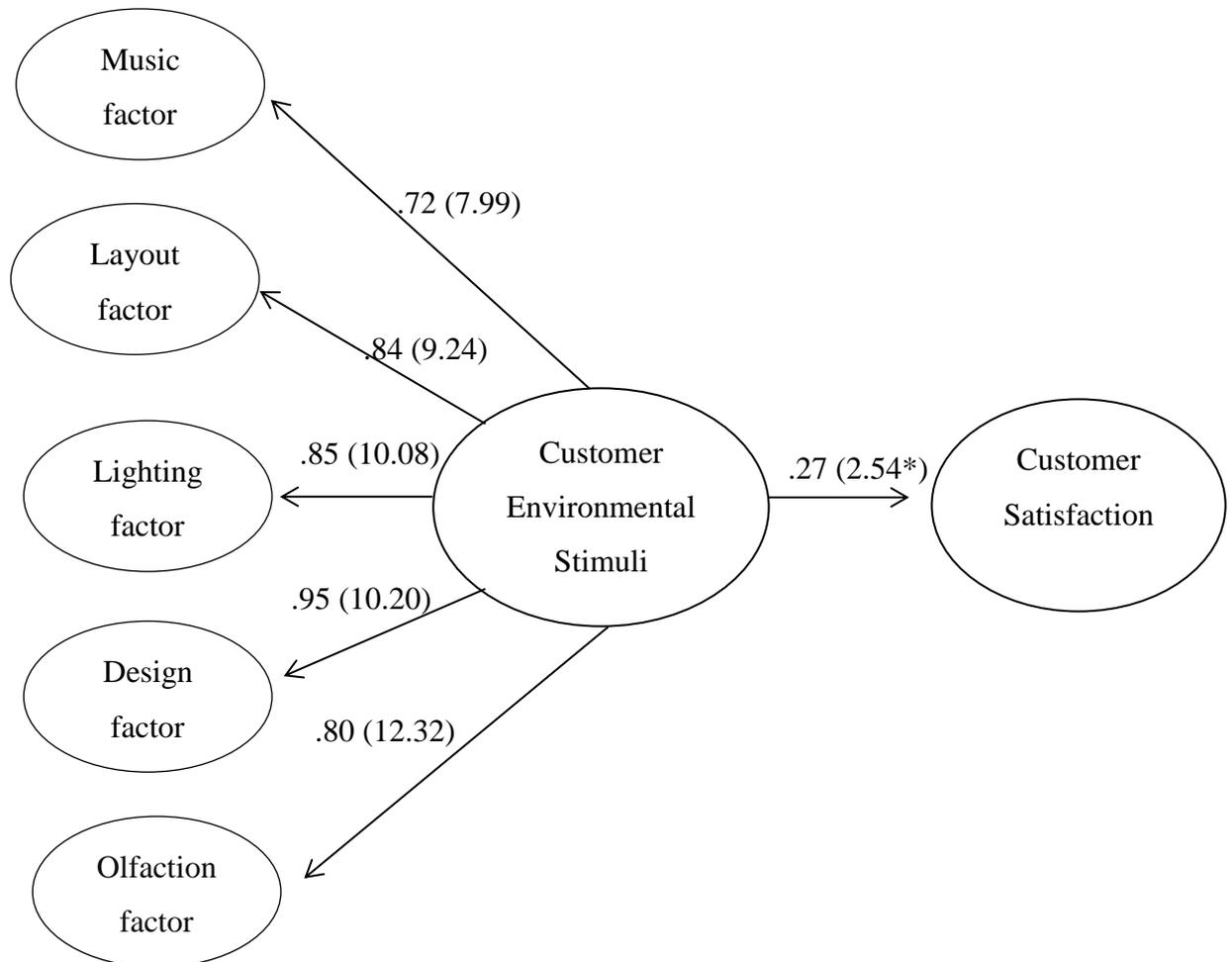


Figure 6.7 Customer Environmental Stimuli-Customer Satisfaction link in Isolation

*All $p < .05$

The RMSEA is high, though considering that the customer environmental construct had a high RMSEA perhaps this is not surprising. However, when the proposed model is examined in its entirety the indirect link provides a significantly better fitting model. This suggests that an indirect link between environmental stimuli and customer satisfaction is perhaps more appropriate. This agrees with the literature in

that the relationship between environmental stimuli and customer satisfaction is mediated (Wakefield and Blodgett, 1994, 1996, Wu and Liang, 2009, Morrison et al., 2012) in this case through employee quality.

Furthermore as highlighted in chapter one, customer satisfaction is considered to contain an affective state and cognitive state (Burns and Neisner, 2006, Ding et al., 2010). The cognitive state requires deliberate processing of information, whilst the affective state is thought to be outside the conscious control of the customer. It could be that customers are not as aware of their environmental stimuli because they do not spend as much time in the environment as employees. Thus, having employee quality, (cognitive stage) as an antecedent to customer satisfaction (affective stage) provides a better understanding of the relationship between environmental stimuli and customer satisfaction within a retail setting. Ding et al. (2010) had highlighted that the role of affect within the customer satisfaction needed further exploration. This finding suggests that customer satisfaction is perhaps more affective in nature, which differentiates it from employee quality.

6.9 Control Variables

As highlighted earlier, due to the nature of this research in using dyadic data, customer responses were aggregated to the employee level. In using dyadic data, the customer demographic data, such as gender or age could not be used as a control variable. This type of demographic information was not appropriate to aggregate to employee level. For this research, the employee and manager data provided the information for measuring the control variables. The control variables examined

were, employee age, employee gender, full or part time employment, employee length of stay with the store, day of the week, location of the store, size of store and date of the refurbishment. It was found that employee age, employee gender, employee length of stay with the store, day of the week and location of the store had no significant effect on the final model. However, of particular significance was the the influence of the size of the store on customer environmental stimuli. The t -value was significant at 4.84. In examining the final model, size of the store was controlled for.

6.10 Final model

The model was re-run with the insignificant relationships removed and with the control variable of size of store. As design quality had no effect on customer satisfaction, H5a, it was deemed appropriate to remove the environmental stimuli-design quality link, H9a, because it did not have an effect on customer responses. As customer responses are a core area of this research and environmental stimuli had no direct influence on customers through H5a, H9a was removed from the finalised model.

As would be expected having removed the insignificant links, an improved fit of NFI .90, CFI .97, SRMR.15, p -value .00008 and RMSEA .047 was found for the finalised model. The ratio of X^2 840.59 over df 691 is .82. See figure 6.8. Overall this indicated a very good fit for the model. although SRMR was above the .08 acceptable mark (Schreiber et al., 2006), it is important not to rely on one statistic to

make conclusions about a models acceptability (Parish et al., 2008, Schumacker and Lomax, 2004).

Parish et al. (2008) examined the item loading for their SEM results and CFA results and found them to be similar, thus suggesting the item loadings passed the reliability and discriminant validity criteria. A comparison of SEM item loadings and CFA item loadings was carried out and they were found to be similar, as per table 6.28. Furthermore in the revised model all the standardised path coefficients were significant at the .05 level or lower, as per figure 6.8. Based on examining the item loadings and significance of the path coefficients as suggested by Parish et al. (2008) as ways of assessing the global and structural fit, the model was considered to be acceptable. Similarly to the first model, an error covariance was permitted between CLA and CLB, and t-value was 5.32.

| Label | CFA Standardised Loading | SEM Standardised Loading |
|-------|--------------------------------|--------------------------------|
| FDE | .95 | .95 |
| FO | .80 | .80 |
| FM | .72 | .72 |
| FL | .85 | .85 |
| FLAY | .84 | .84 |
| FEDE | .91 | .90 |
| FEO | .85 | .86 |
| FEM | .59 | .60 |
| FELI | .82 | .82 |
| FELAY | .79 | .80 |
| CS3 | .87 | .86 |
| CS4 | .93 | .93 |
| CS5 | .89 | .88 |
| CS6 | .83 | .84 |
| QE1 | .90 | .90 |
| QE2 | .91 | .90 |
| QE4 | .88 | .88 |
| QE5 | .77 | .78 |
| QE6 | .87 | .87 |
| CL2 | .81 | .82 |
| CL3 | .85 | .82 |
| CL4 | .78 | .80 |
| CL5 | .88 | .89 |
| CL6 | .86 | .87 |
| CL7 | .97 | .97 |
| CL8 | .95 | .95 |
| CL9 | .76 | .76 |
| ES1 | .85 | .85 |
| ES3 | .90 | .90 |
| ES4 | .81 | .82 |
| ES5 | .71 | .71 |
| ES6 | .80 | .81 |
| ES7 | .90 | .89 |
| EL1 | .84 | .81 |
| EL2 | .78 | .77 |
| EL3 | .90 | .93 |
| EL4 | .57 | .58 |
| EL5 | .85 | .82 |

Table 6.28 Comparison of CFA and SEM Standardised Loadings

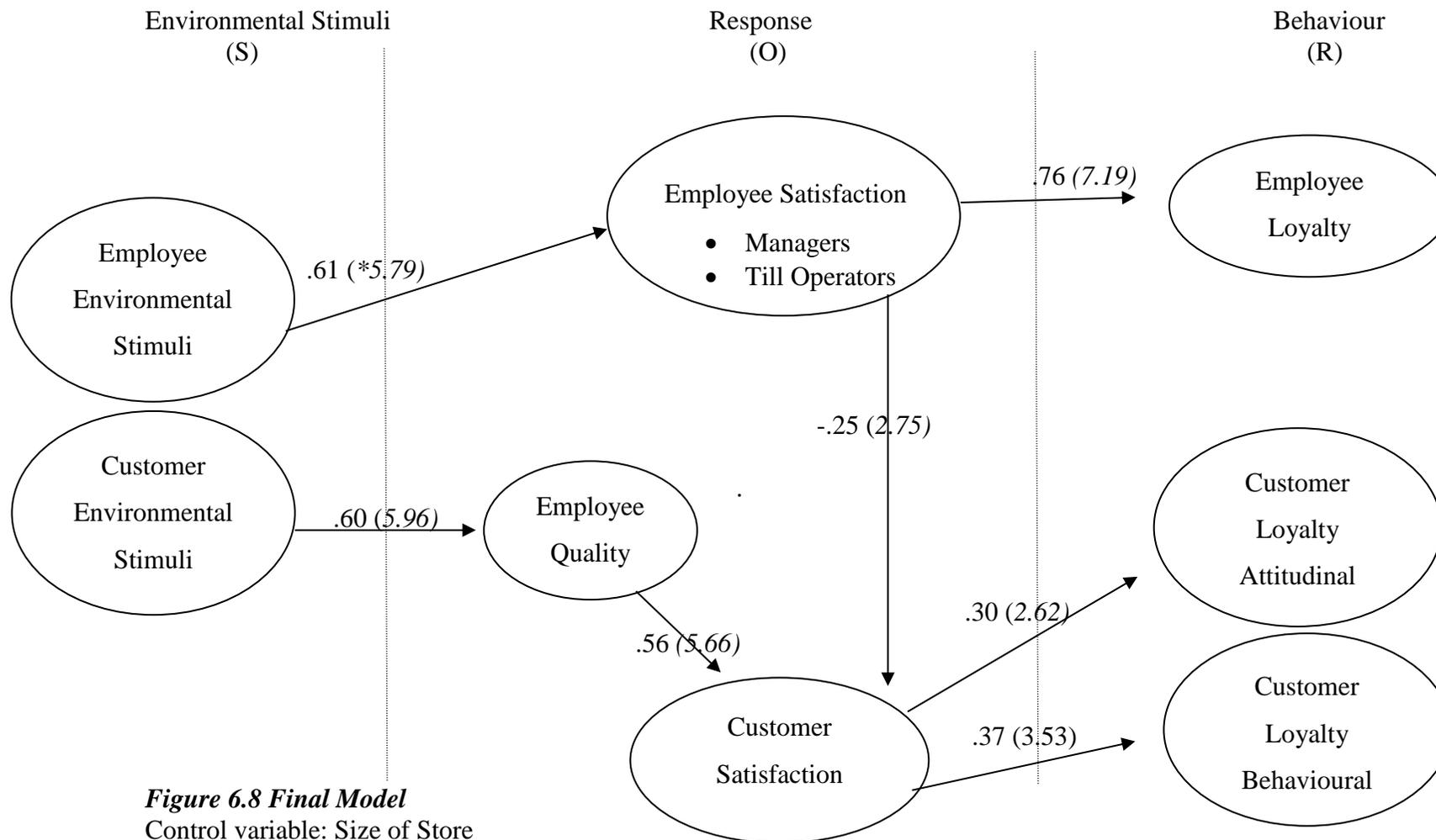


Figure 6.8 Final Model
Control variable: Size of Store

*= all at $p < .05$

6.11 Conclusion

The analysis presented in this chapter has highlighted several key contributions that can be made to the literature. Firstly that the customer environmental stimuli construct is a second order factor containing five sub factors of music, design, lighting, olfaction and layout. Similarly the employee environmental stimuli construct is a second order factor containing five sub factors of E-music, E-design, E-lighting, E-olfaction and E-layout.

Secondly, that environmental stimuli have a direct effect on employee satisfaction and indirectly effect employee loyalty. This demonstrates the need for further research on the influence of environmental stimuli on employees in the literature, an area that has been largely ignored in the service marketing literature (Skandrani et al. 2011). Considering that a main premise of the Service Dominant Logic literature relates to employees in the service setting (Vargo, 2011), this finding is of great significance.

Thirdly, using SEM in analysing dyadic data has provided a contradiction to a key link in the SPC, that employee satisfaction positively influences customer satisfaction. Through collecting dyadic data and carefully avoiding systematic bias, the dyadic data provided insight that previous research may not have been able to. The next and final chapter provides a detailed understanding of the implications of the final model and the theoretical contributions it has made.

7 CHAPTER 7 Conclusion

...Two roads diverged in a yellow wood, and I,
I took the one less travelled by,
And that has made all the difference.

Robert Frost (1875)

7.1 Introduction

This closing chapter identifies the key contributions made to the work climate literature, servicescape literature and the Service Profit Chain (SPC). The limitations of the research are outlined and future research direction is suggested. Finally, the chapter outlines the implications for managers in a grocery retail setting.

7.2 The Research Aim

The aim of this research was to investigate the impact of environmental stimuli on the emotional responses of both customers and employees and the implications that this has on their behavioural responses and its effect on financial performance. In order to address the aim of this research, three objectives were proposed. This allowed a theoretical model to be designed and rigorously tested. Building on previous theoretical frameworks and addressing the gaps that were found in the literature, as per chapter five, an integrated model was tested. The key frameworks that gave insight to this research were the Stimulus Organism Response (SOR) model, the SPC and the servicescape model. The main gaps that have been found in the extensive literature review are summarised next.

Firstly, there is a considerable lack of research on the impact of environmental stimuli on employees in a service setting. Identifying the facet specific climate of environmental stimuli impacting employees was fundamental to this research. Kuenzi and Schminke (2009) noted that global climates are vast and examine broad based determinants of employee behaviour, whilst facet specific climates have a focus and are a climate for something (Schneider, 1975). The climate for something being examined here is the environmental stimuli impacting employees or as identified for this research, employee environmental stimuli. Within the work climate literature there is a paucity of research in this area. Furthermore, in examining the servicescape literature there is also a considerable lack of research on employees. Research objective three addresses this gap by assessing the link between environmental stimuli and customer and employee responses.

The second research gap relates to Bitner's (1992) servicescape model. Though Bitner (1992) highlighted that environmental stimuli impacted both customers and employees, throughout the literature customers have been the main focus for research on services. Furthermore, though Bitner (1992) again highlighted the complexities of the environmental stimuli the main focus of extant research has been on the environmental stimuli in isolation or in pairs rather than examining a global configuration as was proposed by Bitner (1992). Additionally, environmental stimuli have been incorporated into a service quality factor (Cronin Jr and Taylor, 1992, Pollack, 2009), causing difficulties in identifying a distinction between environmental stimuli and service quality. Research objectives two and three examine this gap in the literature. In particular research objective two, evaluating the

relationship between environmental stimuli and service quality, addresses the issue of whether service quality and environmental stimuli are separate factors.

The third research gap is, that despite the acceptance within the literature of many of the links within the SPC there is a paucity of research examining all the links in a single study (Brown and Lam, 2008). The SPC provides an integrated framework for examining key components of perceptions and behaviours with a service setting. Comprehensive approaches to examining the SPC have been lacking due to the difficulty in assessing all key components. Furthermore the SPC does not take the global configuration of the environmental stimuli into consideration. Research objective one, to examine the links within the SPC, and research objective three addresses this third research gap.

7.3 Key Theoretical Contributions

Having identified the three research gaps and three research objectives, the key contributions to the four literature chapters are examined. Working backwards through the literature chapters provides a more fluid theoretical underpinning for understanding the significant contributions that are made. Firstly, contributions to employee environmental stimuli are identified, this relates to research objective three. Secondly, contributions to customer environmental stimuli are highlighted, this relates to research objective two and three. Contributions to the SPC are examined last, this relates to research objective one and also ties in both customer and employee environmental stimuli to the SPC.

7.3.1 Employee Environmental Stimuli Contributions

As noted in chapter four, literature relating to environmental stimuli affecting employees is very limited (Parish et al., 2008, Skandrani et al., 2011). This research examines the entire servicescape model as suggested by Bitner (1992) in the service marketing literature and incorporates elements as suggested by Davis (1984) in the work climate literature. This provides insight into facet specific climate of the employee environmental stimuli from the perspectives of both literatures. Within the work climate literature there is very little empirical evidence relating to any environmental stimuli affecting employees. More importantly there seems to be a lack of previous research examining the global configuration as suggested by Bitner (1992) affecting employee behaviour in a service setting.

This research introduced and provided a reliable construct for measuring environmental stimuli into the work climate literature, thus providing substantial insights into a body of literature that is predominantly lacking in its understanding of environmental stimuli.

Due to the limited research on the employee environmental stimuli, items for the questionnaire were adapted from the servicescape literature in service marketing. Bitner (1992) had proposed that the three environmental dimensions impacted employees as well. Theoretically it made sense to use items that had been researched in customer settings as employees work in the same setting. The same items were used for both customers and employees.

This research used Confirmatory Factor Analyses (CFA) and Structural Equation Modelling (SEM). Initially a one factor model with all the employee environmental stimuli items was run and as expected it provided a poor fit. Through the use of CFA five factors were identified for examining the employee environmental stimuli construct. In this case it was found that environmental stimuli construct was explained by the five sub-factors of E-design, E-music, E-lighting, E-olfaction and E-layout. Each of the factors were found to be reliable and valid. This provides a clear framework for further research and highlights the complexities of an employee environmental stimuli climate in a service setting, which research has previously ignored. This adds significantly to the literature and reduces the gap not only within the work climate literature but also in the servicescape literature.

It is worth emphasising that due to the absence of research examining employee environmental stimuli, its effects on employee behaviour has also not been researched.. This research clearly finds a significant positive direct link between environmental stimuli and employee satisfaction. This alone should provide practitioners and managers with considerable thought as to how they design their stores.

The study of direct or indirect effects relating environmental stimuli to employee behaviour are limited in the service marketing literature (Parish et al. 2008, Kearney et al., 2013). This research is one of the few to examine a global configuration of environmental stimuli, based on Bitner's (1992) and Davis (1984) research, and how this configuration affects employee behaviour. Furthermore, examining the effects of the environmental stimuli on employee satisfaction within a service setting is a first.

Although Skandrani et al. (2011) carry out research on the effects of store atmospherics on employee's behaviour; their research is exploratory in nature and does not directly examine the relationship between environmental stimuli and employee satisfaction.

7.3.2 Customer Environmental Stimuli Contributions

As was highlighted in chapter three, considerable research on the elements of the servicescape relating to customers has been empirically carried out (Ezeh and Harris, 2007, Kearney et al., 2007, Vilnai-Yavetz and Gilboa, 2010, Morrison et al., 2011, Andersson et al., 2012, Orth et al., 2012, Hooper et al., 2013, Kearney et al., 2013). This extensive literature provided significant insights into customer's cognitive, emotional and physiological responses resulting in a behavioural response. However research relating to the global configuration affecting customer responses is surprisingly lacking considering the large volume of research studies carried out.

Wakefield and Blodgett (1996) and Kim and Moon (2009) both examined five elements relating to environmental stimuli: layout, facility aesthetics, seating, electronic display and cleanliness, however these are not the proposed dimensions of the servicescape as suggested by Bitner (1992). However, they did not examine all dimensions as proposed by Bitner (1992) but incorporated more social elements relating to credibility and competence of staff. Furthermore they examined the factors as separate to each other and not as higher order factors relating to an overall construct as this research proposed. This research clearly acknowledges that the customer environmental stimuli construct is multidimensional.

One of the few who have examined a more global configuration of the servicescape is Ryu and Jang (2007). They examined facility aesthetics (décor, colour, and furnishings), lighting, ambience (music, aroma, and temperature), layout and dining equipment. However they did not examine a second order model but examined the direct relationship of each factor with pleasure and arousal. As can be seen there is considerable empirical evidence to support the view that different elements form part of the environmental stimuli.

The first major contribution of this research is that examining the global configuration of a store environment can provide a fuller framework to exploring behavioural responses. This research provides evidence that environmental stimuli should not be examined as a single general factor consisting of several items relating to colour, lighting, music, layout or design but rather that environmental stimuli is a multidimensional construct and consists of several sub-factors. This in itself highlights the complexity of environmental stimuli and shows that measuring it as a one factor model is insufficient. CFA was carried out and confirmed five separate factors; music, design, layout, olfaction and lighting. These were very similar to the employee environmental stimuli factors. Each of these was found to be valid and reliable. A second order factor was derived which clarifies that music, design, layout, olfaction and lighting were higher order factors relating to a construct that was termed customer environmental stimuli. This second order model provides a more comprehensive measurement model than had previously been accounted for in the literature. Hightower (2010) postulated that the servicescape should be viewed as a hierarchical factor structure, and this research provides evidence for this.

Bitner (1992) identified three main dimensions: ambiance, space and function, and signs, symbols & artefacts. This research extends this framework and suggests that the ambiance dimension is more complex. Five sub-factors were reported for the environmental stimuli, rather than three as suggested by Bitner (1992). However there is a clear acknowledgement of the theoretical underpinning of each of Bitner's dimensions. Bitner's space and function is complimentary to the layout factor, signs symbols & artefacts relates to the design factor. However music, lighting and olfaction are clearly separate factors rather than being part of a general ambiance factor as many researchers have posited in the past. Considering the lack of research on lighting (Summers 2001), a particular insight from this research is that lighting was found to be a separate factor. As highlighted in the literature there has been a crossover between design and layout. This research found them to be clearly separate factors. Furthermore design and colour were related and found to form a single factor, strongly suggesting that when perceiving the environmental stimuli customers find colour to be part of the design factor. Also cleanliness has had limited research (Vilnai-Yavetz and Gilboa, 2010) and has sometimes been associated with interior design. Cleanliness was found to relate to olfaction. This again is not surprising as unpleasing odours in a grocery retail store environment could suggest uncleanliness of the environment.

7.3.3 SPC Contributions

Chapter one focusses on the well-known SPC model. One of the core objectives of this research relates to exploring the links in the SPC. Some of the links in the SPC as proposed by Heskett et al. (1994) were found to be significant. The most

significant was the employee satisfaction to employee loyalty link. Before testing the links in the SPC, CFA was used to assess the reliability and validity of the factors. Similarly to past research the factors of, employee satisfaction, employee loyalty and customer satisfaction were all found to be reliable and valid. This research also found the factors of, customer loyalty and service quality to be reliable and valid. However, in contrast to the extant SPC literature, this research found that customer loyalty was multidimensional and consisted of customer loyalty attitudinal (CLA) and customer loyalty behavioural (CLB) and that service quality also consisted of two distinct but associated factors, employee quality and design quality.

7.3.3.1 Customer Loyalty

Theoretically it has been suggested that loyalty consists of two separate but related factors of attitudinal and behavioural loyalty. However the majority of research has only examined one or the other at any one time, or has not specified what type of loyalty they were researching (Harris and Ezeh, 2008, Han and Ryu, 2009, Yee et al., 2011). This research expands on previous research that only focussed on one loyalty factor by examining both loyalty factors. The findings attempt to fill a gap in the literature by demonstrating that customer loyalty consist of two separate factors, customer loyalty altitudinal (CLA) and customer loyalty behavioural (CLB). Previous research had not examined both loyalty intentions (Dick and Basu, 1994, Zeithaml et al., 1996, Harris and Ezeh, 2008, Chen et al., 2009, Han and Ryu, 2009). This research contributes to this debate by examining both CLA and CLB.

One of the findings of this research is that previous items measuring behavioural loyalty formed the CLB factor and previous items measuring attitudinal loyalty formed the CLA factor. However, one behavioural item that had been used in the past, CL4, visiting the store again even if others are cheaper, was found to be part of the CLA factor. Perhaps this is not that surprising considering that previous research has not examined both forms of loyalty.

In their research, Harris and Ezeh (2008) did not specify the type of loyalty they examined but rather termed their factor customer loyalty. They had based their research on Zeithaml et al. (1996) five item behavioural loyalty factor and had added one extra item to the factor. Interestingly for this research the extra item added, which was CL4, loaded on the CLA factor. Also Harris and Ezeh (2008) extra item had the lowest loading for their customer loyalty factor. This highlights the need for further research to firstly, specify what type of loyalty is being researched, and secondly and perhaps more critically to examine both CLA and CLB.

Back (2005) and Han and Ryu (2009) have both suggested that examining the behavioural factor of customer loyalty can be misleading. A decision to buy may not be intentional but rather through lack of choice. However examining the attitudinal loyalty can provide evidence of an emotional commitment to the provider. As this research examines both, it provides much sought after evidence of a customer's emotional commitment to a store as well as their behavioural intention.

7.3.3.2 Service Quality

As with customer loyalty, service quality is considered to be multidimensional. However researchers often only examine a general service quality factor and do not specify which factors of service quality they are examining (Baker et al., 1994, Yee et al., 2011). In the past the factors relating to service quality have been unclear due to elements of the environmental stimuli being included within the service quality dimension (Cronin Jr and Taylor, 1992, Brady and Cronin Jr, 2001, Pollack, 2009). This research finds environmental stimuli to be separate from service quality and identifies employee quality and design quality as distinct factors. This provides a clearer understanding of the service quality factors in the services literature.

Having identified, validated and found each factor to be reliable, the links in the proposed model were examined using SEM. This research identifies some key empirical evidence to guide further research direction. One of the objectives of this research was to relate environmental stimuli to employee and customer response, thus linking environmental stimuli with the SPC. Significant relationships were found for both customers and employees with environmental stimuli thus confirming the proposed relationship with the SPC.

7.3.3.3 Customer Environmental Stimuli-Customer Satisfaction

It would appear that though the customer environmental stimuli construct does not impact on customer satisfaction directly it does impact positively on customer's perception of employee quality. It would seem customers evaluate employee quality

in relation to their surroundings whilst shopping in the store. Customers observe and experience employee quality in the store environment and then cognitively make inferences about the quality of the service they receive. However, the store environment, where customers make these evaluations of the service quality they receive, has had limited consideration in the past. This research finds that the influence of the global configuration of the environmental stimuli impacting service quality which in turn impacts customer satisfaction is highly significant. Finding an indirect link between environmental stimuli and customer satisfaction appears to be consistent with previous research (Wakefield and Blodgett, 1996, Wakefield and Blodgett, 1994, Han and Ryu, 2009, Morrison et al., 2011)

7.3.3.4 Customer Environmental Stimuli- Service Quality

Past research proposed that elements of environmental stimuli form part of the service quality construct (Brady and Cronin Jr, 2001, Pollack, 2009). This research identifies that customer environmental stimuli are an antecedent to service quality, thus indicating that environmental stimuli directly impact on service quality. This confirms recent research by Hooper et al. (2013). This research reveals that environmental stimuli are of great importance in determining customers' perceptions of the service quality they receive. Customer environmental stimuli are found to positively affect employee quality and design quality. This derives from the fact that, in the model, environmental stimuli accounted for a significant proportion of the variance in both employee quality and design quality.

From a theoretical perspective, this research is one of the few that examines how environmental stimuli influence customer perceptions of both employee quality and design quality. The extant literature to date has offered little insight into the relationships between the global configuration of the environmental stimuli, as suggested by Bitner (1992), and service quality. Notably, Baker et al. (1994) and Reimer and Kuehn (2005) highlighted the need for research. This study then has contributed to the 'void in the literature' as noted by Baker et al. (1994, p. 335). The findings of this research provide empirical support not only for environmental stimuli being considered to be separate from service quality, but furthermore tests this against a multidimensional perspective of service quality.

7.3.3.5 Service Quality-Customer Satisfaction

It should be highlighted that, though a significant relationship was found between employee quality and customer satisfaction, no significant relationship was found between design quality and customer satisfaction. This would appear to reiterate the idea that customers place more emphasis on the quality of the employee and that the quality of the design of the store does not have a direct impact but rather there is an indirect relationship between customer environmental stimuli and customer satisfaction.

Design quality not having a direct impact on the customer is not that surprising in a grocery retail store context. Customers are surrounded by environmental stimuli but are more conscious of the employee quality. However their perceptions of employee quality takes place within the service environment where the environmental stimuli

are present. Thus their perceptions of the environmental stimuli are an affective process, suggesting a subconscious process, thus indirectly affecting their perception of the employee quality they receive, as was found in this research. Oliver (1993) highlighted that the evaluative process of cognitive and affective can be considered to produce separate levels of influence on satisfaction. This research found direct and indirect influences on customer satisfaction, indicating that cognitively customers were directly aware of employee quality but affectively they were indirectly aware of the environmental stimuli. The findings ascertain that the driver of customer satisfaction was clearly employee quality.

7.3.3.6 Customer satisfaction –Customer Attitudinal Loyalty (CLA)/Customer Behavioural Loyalty (CLB)

Customer satisfaction factor was found to be consistent with previous research (Hightower et al., 2002, Dietz et al., 2004, Chi and Gursoy, 2009). A positive link between customer satisfaction and CLA and CLB was found. An important implication of the findings is the differentiation of CLA and CLB. Clearly customer loyalty should be examined on both behavioural and attitudinal elements. This research makes an important contribution because it demonstrates empirically the effect of customer satisfaction on both CLA and CLB, rather than extant research which examines the effects of customer satisfaction on general customer loyalty.

The relationship between customer satisfaction and CLB was slightly stronger than for customer satisfaction and CLA. Though the link for behavioural loyalty was slightly higher, this research highlighted that customers can be emotionally

committed to a store. This research has filled a large void in the literature by finding significant evidence for both CLA and CLB in a grocery retail setting.

The relationships most often researched in the services literature are the influences of service environment on customers and in turn customers behavioural responses. Of particular insight for this research was that the employee relationships were more significant in the service setting than the customers relationships.

7.3.3.7 Employee Environmental Stimuli - Employee Satisfaction - Employee Loyalty

Strong support for the proposition that employee environmental stimuli positively influence employee behaviour in a service setting was found. Specifically, evidence that the global configuration of environmental stimuli significantly affects employee satisfaction resulting in employee loyalty is a key empirical finding. Both employee satisfaction (Homburg and Stock, 2004, Wangenheim et al., 2007, Chi and Gursoy, 2009, Homburg et al., 2009) and employee loyalty (Currivan, 1999, Gelade and Young, 2005, Paulin et al., 2006) factors were consistent with previous research. Finding a significant positive relationship for environmental stimuli affecting employee behaviour provides much needed empirical evidence that helps close a gap in the literature.

A fundamental significant finding was that employee environmental stimuli had a significantly larger positive direct relationship on employee satisfaction than it did on customer satisfaction. This is very important as it identifies that the impact of

environmental stimuli on employee behaviour is stronger than for customer behaviour. This derives from the fact that a higher variance was accounted for by the environmental stimuli in explaining employee satisfaction and loyalty than for customer satisfaction and loyalty. The direct link between employee environmental stimuli and employee satisfaction was a highly significant link at a 1% level of confidence and contributed to 37% of the variance explained in employee satisfaction.

Furthermore, this is a revolutionary finding as the results of this research corroborate the presence of relationships that previously have been overlooked in the literature. Hsu and Wang (2008) had highlighted how crucial it was to understand what factors influence employee satisfaction. These findings clearly demonstrate the direct impact that environmental stimuli have on employee satisfaction. This also highlights that employees are more aware of their work environment than customers are of their shopping environment, even though it is the same environment being examined.

Additionally, employee satisfaction directly impacted employee loyalty, and employee satisfaction was directly affected by employee environmental stimuli. This also highlights the significant indirect relationship that environmental stimuli can have on employee loyalty. Maertz et al (2007) indicated that in the future understanding employee loyalty is a primary concern for managers. In providing insight into the literature, these findings have highlighted the influence of environmental stimuli on employee loyalty. This clearly validates the importance of designing service environments not only for customer behaviours but for employee behaviours. Facet specific research relating to employee environmental stimuli

impacting on behaviour has been lacking in the work climate literature. The findings of this thesis provide key insights for future researchers to consider.

7.3.3.8 Employee Satisfaction -Customer Satisfaction

Of particular interest in this research is the employee-customer satisfaction link. Through the use of the dyadic data customer responses were aggregated to employee responses. This gave significant insight into the employee-customer satisfaction link as both sides of the dyad were responding. The dyad contained corresponding information from customers and till operators, thus enriching previous research in the service literature as well as in the work climate literature.. This adds to the emerging dyadic data collection methodology in this area.

It was identified that employees had indicated that they were satisfied or strongly satisfied. Customers also indicated that they were satisfied or strongly satisfied. However contrary to previous research, where employee satisfaction has positively influenced customer satisfaction (Loveman, 1998, Wangenheim et al., 2007, Brown and Lam, 2008, Jeon and Choi, 2012) or where no relationship was found (Homburg et al., 2009, Kantabutra, 2011), this research found a significant negative relationship. This is somewhat surprising as it has been generally accepted theoretically that employee satisfaction will lead to customer satisfaction, in the so called satisfaction mirror. Of particular interest is that Homburg et al., (2009) and Kantabutra (2011) both used dyadic data but found no relationship.

Results suggest that testing only a direct employee-customer satisfaction link could be limited as it is important to account for other constructs impacting directly and indirectly on customer satisfaction. For example, clearly service quality has a stronger relationship with customer satisfaction than employee satisfaction and is significant at the 1% level. Furthermore the global configuration of the customer environmental stimuli has a significant positive affect on service quality and an indirect effect on customer satisfaction.

7.4 Limitations of the Research

This research focused on one industry, grocery retail, in Ireland. Thus the service accounts for only one type of service, a utilitarian service. Furthermore this research is a representation of one geographic area within Ireland.

In relation to the financial measure, data was collected during a global downturn. Furthermore managers had stated that they did not want to share financial data. In order to gain financial information a likert scale was developed. Managers may have been reluctant to answer this particular question due to its sensitive nature, which may have affected the financial performance links within the model.

In examining employee loyalty, the direct costs of training staff were not examined. It has been highlighted that recruiting new staff costs more for training (DiPietro and Milman, 2004). Not examining this element could also have impacted on the financial performance links in the SPC. Furthermore Anderson and Mittal (2000) suggested that customer loyalty has been linked to lower marketing costs. Marketing

costs were not examined in this research and a fuller explanation of financial costs and marketing costs should be examined to understand the relationship between loyalty and overall costs of an organisation rather than just the performance costs of the store.

Significant shortcomings of this research resulted from problems in examining the PAD. CFA could not confirm the factors for the PAD. This may have occurred due to the type of service that was being examined or due to lack of customer response on this particular question. Customers visit grocery stores to fulfil a need rather than to have a hedonic experience. Customers may also not be aware of their emotional response within a utilitarian service. Furthermore there may have been some self-censorship by customers since they may feel that a grocery retail service setting is not an appropriate venue to exhibit emotions.

Past research has found PAD to be problematic. However this research in keeping with past research used semantic differential scaling for measuring the PAD as was suggested by Mehrabian and Russell (1974). It was found for this research that customers were confused on how to answer the semantic differential questions. More recently Kim and Moon (2009) used Likert scales based on the Pleasure dimension and found a three item factor to be reliable. Further research should perhaps look at measuring the PAD with Likert scales rather than semantic differential scaling.

7.5 Future Research Directions

There are clearly many avenues for further research that could help guide managerial and academic understanding. Promising avenues for further research can be derived at the employee level. The most obvious extension for further research would relate to employee environmental stimuli. Prior research has focussed in on the notion that the environmental stimuli or servicescape provides a critical understanding of customer evaluations and behaviours. However, research examining employee evaluations and behaviours has been predominantly unfounded due to environmental stimuli impacting employees being largely ignored in the literature. There is an extensive gap in the literature relating to employee environmental stimuli that needs careful and considerable consideration. Skandrani et al. (2011, p. 62) point out that ‘the atmospheric dimensions in the employee case deserve to be studied more thoroughly’.

Another avenue for further research, as was highlighted by Brady and Cronin (2001, p. 45) is to ‘investigate the interrelationships between service quality and other service constructs’. In particular the relationship between service quality and environmental stimuli needs to be empirically examined in a closer manner. Additional research investigating whether environmental stimuli are an antecedent of service quality would add further to the literature. Furthermore, research examining the different factors relating to service quality needs further investigation as well as how each of the different factors impact emotional and behavioural responses.

It is worth noting that Wakefield and Blodgett (1996) carried out research in a leisure service setting, which was highly hedonic in nature and where customers spend more time. They found that different environmental stimuli impacted on service quality than those proposed in this research. Kim and Moon (2009) who based their research on Wakefield and Blodgett (1996) also examined a more hedonic service environment, a restaurant setting. This research examined a utilitarian based service. Differences between hedonic and utilitarian services relating to environmental stimuli and service quality need further exploration.

Customer loyalty has widely been researched in the literature; however customer loyalty relating to behavioural loyalty is the most widely researched. Some research has explored attitudinal loyalty but this is limited. Research examining both CLA and CLB in a single study is needed to further highlight the significant differences that exist between the two factors.

It is worth underlining that the cleanliness factor is worthy of further exploration. Though cleanliness was proposed as a separate factor for both employees and customers, it was not found to be separate but part of the olfaction factor. However two of the proposed items for the cleanliness factor were negatively worded and negatively worded items were generally not found to be reliable in this research. More recently Miles et al. (2012) used a six item cleanliness factor that did not contain negatively worded items. They found this to be reliable and valid as a factor. However it should be used with caution as they did not examine all elements of the service but focused their research on facility aesthetics, cleanliness and layout.

Further research should incorporate a more comprehensive factor for examining cleanliness.

In relation to the main principle of the SPC, the robustness of the employee-customer satisfaction link has been challenged in this research and in other research (Silvestro and Cross, 2000, Homburg et al., 2009, Kantabutra, 2011). More studies using dyadic data could help in examining this controversial link. Furthermore it would be beneficial to include a measure of market performance and not just financial performance in the SPC.

What should be taken into consideration when examining the SPC is that it is likely that the core relationships, between employee and customers, are dependent on the nature of the service being explored. For example in the retail grocery store, more self-service tills are being used in stores. Another example is more petrol stations are using card only self-service points where there is no need to speak with anyone. This reduces the need for direct employee-customer interaction within these particular service settings. However these are both utilitarian focussed services. Further highlighting the need to examine the differing influences the SPC has in both hedonic and utilitarian services.

Another avenue for further research is the role of dominance in an online environment. One of the key differences with online environments is that customers have more control of their environment and the information they seek (Alba et al., 1997). Furthermore there is a need for clarification regarding the global configuration of online environmental stimuli, as many authors disagree on the configuration (Chen et al., 2002, Hopkins et al., 2009, Harris and Goode, 2010)

7.6 Managerial Implications

The key management implication is that store managers should consider different agents when designing their store environment. Not only customers should be taken into consideration but employees. The impact of environmental stimuli or as referred to in the industry as 'store atmospherics', has an influential effect on employee satisfaction. Efforts to increase employee satisfaction should not proceed without taking into account the atmospherics that can affect them. Atmospherics relates to the colour, lighting, music, layout, overall design and olfaction (Kotler, 1973). Designing new stores should start with observing staff members as they work and what design features enable or inhibit them or what is missing that could help them carry out their job better. A key part of an employee's role in a service environment is providing a service to customers; the way services are designed should be functionally pleasing for employees in order to provide a quality service.

Atmospherics have been found to affect peoples' attitudes and behavioural intentions and are an important part of employee's lives when they are at work (Skandrani et al., 2011). Management overlook the fact that employees spend much more time in the service environment than their customers. Because they spend longer in the environment, atmospherics have a greater influence over their satisfaction than it does for customers. Customer satisfaction is always a key component when designing service environments; however atmospherics may not directly impact customer satisfaction. What was found in this research is that customers are more aware of the service quality they receive. The proposed model can assist managers in

understanding how their customers assess the quality of the store and how in turn quality affects customer satisfaction. Customers perceived that the atmosphere impacted on design quality and employee quality. They believed these to be separate elements.

Of particular importance for managers is that the quality of the design did not directly affect customer satisfaction, but rather the quality of the interaction with the employee had a direct effect on customer satisfaction. The service takes place within the store, where customers may interact with employees. Atmospherics impact on the perception of employee quality that customers receive. Customers make judgements of the quality they receive about employees within the store environment. Thus atmospherics indirectly affects customer satisfaction. Furthermore, if stores are designed with employees in mind as well as customers, employees may be able to provide a better quality of service.

This research further suggests that store managers should not neglect the importance of keeping employees satisfied as this leads to employee loyalty. As Hsu and Wang (2008) pointed out it is of utmost importance for organisations to identify and understand the factors that influence employee loyalty. In the past employee loyalty has been conceptualised to relate to the costs for organisations when employees leave. Reducing staff turnover is crucial to an organisation as it can reduce the costs of training and recruiting staff (Hsu and Wang, 2008). If managers are aware of what influences employee loyalty then they can reduce the costs of training new staff. Furthermore training new staff involves time, time that could be spent with customers (Gentry et al., 2006).

Likewise, managers should acknowledge that customer satisfaction leads to their behavioural loyalty as well as their attitudinal loyalty. This is of particular importance as managers believe that satisfied customers will return to the store and shop. However this research also shows that customers may be attitudinally loyal and have an emotional commitment to the store. This suggests customers will visit the store even if others are cheaper and they will choose the store over other stores that have similar products. This is of particular importance because customers may return to the store because of convenience or lack of choice, thus showing behavioural loyalty, but if customers are attitudinally loyal they are choosing to return because they are satisfied with the service they are receiving. It is vital for managers to examine both types of loyalty. If there are no competitors in the area, customers may return due to lack of choice (Nguyen et al., 2012). If managers can provide a service that keeps customers loyal attitudinally, than if a competitor does open up nearby than customers may not shop in the competing store. If managers are aware of the type of loyalty their customers have than they are able to make informed decisions.

Managers using the SPC framework should be cautious in its interpretation. Not all the links in the SPC are suitable for every service setting. Managers need to be aware if their service is hedonic or utilitarian in nature as this impacts on the links in the SPC. This research examined retail grocery stores which are utilitarian in nature. A key relationship in the SPC is the positive influence of employee satisfaction on customer satisfaction. This link was found to be negative, suggesting that employee satisfaction does not lead to customer satisfaction. However these results should be

used with caution. There may be a level at which employee satisfaction does not lead to customer satisfaction but rather keeps customers from becoming dissatisfied. Further research is needed on this link in order for managers to make informed decisions.

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Appendix 1

Table of authors using Mehraiban and Russell (1974) framework

| Author | Sample size | Origin of Study | Design | Dimensions and Variables | Purpose and Findings | Comments |
|-----------------------------|--|-----------------|------------------|---|---|--|
| Russell (1980) | Test 1) 36 Test 2) 34 Test 3) 343 subject Both genders | Canada | Self report | Pleasure Arousal | Purpose: To show that affective states are best represented in a two dimensional space. Findings: There findings agreed with Mehrabian and Russell (1974) model. That the two dimensions can be called Pleasure and Arousal. | Useful in understanding the M&R model |
| Donavan and Rossiter (1982) | 30 graduate business students chosen | USA | Descriptive | Pleasure Arousal Dominance Information Rate Approach-avoidance intentions | Purpose: to test if approach-avoidance behaviour can be predicted from PAD emotional states inside a store environment and information rate. Findings: In pleasant environments, enjoyment, shopping time, and spending increases as arousal increases. Dominance does not seem to strongly influence behaviour | Within the literature it was an influential study, even though it was a very small sample Revised M&R model Agreed with the M&R Model. Ignored Dominance |
| Milliman (1982) | 36 Actual supermarket shoppers | USA | Field experiment | Music tempo Sales volume Traffic pace | Purpose: to test the effect of music, music tempo on traffic pace, volume, awareness in supermarket. Findings: Music tempo related to traffic pace and sales volume but not to awareness | Not beneficial in terms of the M&R model |
| Amato and McInnes (1983) | 12 settings 220 subject aged 16+ | Australia | Field experiment | Pleasantness Arousal City environments Information rate | Purpose: To examine Mehrabian and Russell (1974) Hypothesis Findings: Their findings supported the model. Environmental pleasantness was positively associated with affiliative behaviour, arousal and information-rate were curvilinearly related to affiliative behaviour, and a significant interaction was observed between environmental pleasantness and arousal, with arousal being positively associated with affiliative behaviour in pleasant environments& a negative association in unpleasant environments. | Similar to Donavan & Rossiter(1982) research Revised M&R model Agrees with the M&R Model |

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|------------------------------------|--|-----|---|---|---|--|
| Bellizzi, Crowley and Hasty (1983) | 125 females Ages 18-64 | USA | Laboratory experiment | Colours Approach behaviour Physical attraction | Purpose: Colours and its association with approach behaviour. Findings: colours do not influence approach behaviours but are associated with physical attraction. People are drawn to warm colours but they found them unpleasant. | Focuses on Colour Not beneficial in terms of the M&R model Females were chosen because it was felt women do most retail shopping |
| Milliman (1986) | 1392 customer groups 644 observed customer groups | USA | Field Research (observation) | Background music Approach-avoidance | Purpose To examine the effect of background music on the behaviour of restaurant customers Findings: That music tempo variations can significantly affect purchases, length of stay, and other variables. | Use of the M&R model |
| Yalch and Spangenberg (1988) | 86 (male?) shoppers | USA | 3x2x2 experimental design Field Experiment | Music Approach avoidance behaviour | Purpose: To explore the relationship between types of music provided in a retail store and in-store behaviour Findings: Using background music as the environmental music relative to foreground music or no music resulted in shoppers reporting that they were less aroused. Shoppers perceived background music as less desirable than foreground music | Used Donovan and Rossiter study as a basis.M&R model used |
| Yalch and Spangenberg (1990) | 86 (male?) department store shoppers | USA | 3x2x2 Experimental design Field experiment | Music age | Purpose: To compare the effects of background and foreground music Findings: when shoppers were exposed to music that they normally listen to they reported spending less time in the store than they had intended relative to when they listened to music they do not usually select. | Uses the M&R scale in the research Is a further research from there 1988 research |
| Hui and Bateson (1991) | 115 British Adults | UK | Laboratory Experiment A 3x2x2 Factorial design | Consumer density Perceived Control Perceived Crowding Approach-avoidance Pleasure | Purpose: To investigate perceived control and its effects on the service experience Findings: That perceived control can be used to explain the effects of consumer choice on the emotional and behavioural outcomes within the service environment. | Not beneficial in terms of the M&R model |

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| Baker, Levy, and Grawel (1992) | 147 undergraduate students | USA | Experimental Factorial Design | Arousal Pleasure Ambient levels Social levels | Purpose: To examine the Mehrabian and Russell (1974) model Findings: Affective states produced by the environment do influence consumers' willingness to buy. That social factors influenced arousal and that social-ambience interaction occurred for pleasure and willingness to buy. | Similar to Donovan & Rossiter(1982) research Revised M&R model Agrees with the M&R Model Ignored Dominance |
| Bellizzi and Hite (1992) | 70 Adult women 107 undergraduate students | USA | Experimental 2 X 2 Factorial design | Colour Approach-avoidance behaviours Purchase rates | Purpose: to conduct two simultaneous experiments to test the effects of colour (red versus Blue) to induce feelings and purchase intentions. Findings: consumers react more favourably to a blue environment. blue environment resulted in higher stimulated purchase rates. Colour effects were more strongly linked to pleasure than they are arousal and dominance. | Similarly to Bellizzi et al (1983), focuses on Colour Not beneficial in terms of the M&R model but does look at light on colours effects |
| Kelleris and Kent (1992) | 150 upper level business students | USA | Experimental Manipulation of the music | Music | Purpose: To explore the influence of music on listeners' perceptions of duration Findings: that music can influence Consumers subjective experience of time. | Music focus Not beneficial in terms of the M&R model |
| Yalch and Spangenberg (1993) | ??shoppers | USA | Field experiment | Music Shopping-behaviour | Purpose: to examine the effects of store music on shopper behaviour in a department store. Findings: that playing the appropriate music for a specific department enhanced the environment resulting in more shoppers making purchases and spending more money | Looked at Donovan and Rossiter (1982) study |
| Donovan, Rossiter, Marcoolyn, and Nesdale (1994) | 60 18-35-year old females | Australia | Field study | Pleasure Arousal Time Unplanned purchases | Purpose: To examine Mehrabian and Russell (1974) hypothesis Findings: Higher arousal reduced unplanned spending in unpleasant environments, but was not significant in pleasant environments. Pleasure is significantly associated with extra time and unplanned spending in pleasant environments but not in unpleasant. | More in depth study to D&R (1982) Revised M&R Model. Finds support for M&R model. No reasoning for only using female shoppers |

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| Gulus and Schewe (1994) | Supermarket Respondents 39 (30-49) 37 (65 +) | USA | Field Study | Music Approach avoidance Behaviour | Purpose: To examine the effects of generational background music on shoppers. Findings: Classic rock background music had a positive effect on the number of items purchased by baby boomers in a field environment. | Use of the M&R scale |
| Wakefield and Blodgett (1994) | Junior and Senior students (did not indicate number) | USA | Laboratory experiment Video | Perceived quality Perceived satisfaction Repatronage | Purpose: to examine the servicescape quality satisfaction repatronage relationship Findings: they found that different atmospheres do tend to affect perceptions of quality, satisfaction and future purchase intentions | Is useful in examining the Servicescape. Used Video-taping. Not useful for the MR Model |
| Dube, Chebat and Morin (1995) | 270 undergraduate French-Canadian students | Canada | Laboratory experiment A 3x3 Factorial design | Pleasure Arousal Desire to Affiliate Music | Purpose: To examine Mehrabian and Russell (1974) hypothesis Findings: Music does influence buyer-seller interactions. Found main effect and interactive effects of music-induced pleasure and arousal on consumer's desire to affiliate with bank personnel. | Beneficial in terms of the M&R model Revised M&R model Disagree with the 2 nd and 3 rd hypothesis |
| Herrington and Capella (1996) | 140 shoppers | USA | Field experiment | Music Approach-Avoidance behaviour | Purpose: to report the findings of a controlled field study examining the effects of music on shopping behaviour Findings: that tempo and volume of the background music did not influence the shopping time or expenditures of shoppers | Use Milliman's (1982) Research M&R model used Russell and Snodgrass (1991) model |
| Spangenberg, Crowley, and Henderson (1996) | 308 undergraduate students | USA | Laboratory experiments | Scent affect Evaluations of the Store Store environment Merchandise Specific products. Intentions to visit the store | Purpose: To examine the effects of olfaction on behaviour Findings: The presence or absence of a scent affects both evaluations and in-store behaviour. Subjects in a scented environment perceived that they spent less time in the store than they actually did. | Not Beneficial in terms of the M&R model |
| Wakefield and Blodgett (1996) | Football Baseball Casino (Did not indicate number) | USA | Field research | Servicescape Satisfaction | Purpose to build on Bitner's 1992 servicescape model Findings: the servicescapes are an important determinate of customers behavioural intentions when the service is consumed for hedonic purposes and when the consumer spends a lengthy time in the service setting . | Is useful in examining the Servicescape. |
| Kenhove and Desrumaux (1997) | 364 retail shoppers Furniture stores, | Belgium | Field research | Pleasure Arousal Approach-avoidance | Purpose: to examine the Mehrabian and Russell (1974) model. Findings: identifies that the organism-response part of the Mehrabian and Russell model is useful in a retail environment. However the results | Beneficial in terms of the M&R model Revised M&R model |

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|--------------------------------|---------------------------------------|-----------|----------------|---|--|---|
| | garden stores and clothing stores | | | | do not support the 'bi-directionality' between pleasure and arousal. An attempt to dampen arousal in an unpleasant environment will lead to more avoidance behaviours. Even in a neutral or pleasant setting very high arousal does not lead to more avoidance behaviours | Agree and disagrees with M&R findings |
| Spies, Hesse and Loesch (1997) | 76 customers per store Two stores | Germany | Field research | Lighting Colour Layout Mood Information rate | Purpose: to investigate the effects of store stimuli on customers' mood, satisfaction and purchasing behaviour. Findings: It could be shown that customers satisfaction was higher in the pleasant compared to the less pleasant stores. Goal attainment as well as customers mood state was an important variable | Not Beneficial in terms of the M&R model |
| Tai and Fung (1997) | 300 shopping respondents CD stores | Hong Kong | Field research | Pleasure Arousal Information load Approach-avoidance behaviour | Purpose: To investigate the Mehrabian and Russell (1974) model in terms of a retail context. Findings: Reinforce that Mehrabian and Russell model is useful in the study of store behaviour. However it was found that information rate has strong affects on arousal only. The findings partly coincide with Donovan and Rossiter (1982) findings that the effect of information rate on emotional states is not significant. | Beneficial in terms of the M&R model. Revised M&R model. Agree and disagrees with M&R findings. Though they do not say in the study, they support Lazarus 1991 theory |
| Foxall and Greenley (1999) | 142 consumers | England | Field research | Pleasure Arousal Dominance Approach-avoidance | Purpose: to examine how pleasure, arousal, and dominance would each influence approach, avoidance, and aminusa (represents Mehrabian and Russell (1974) composite measure of approach-avoidance) Findings: shows that Pleasure, Arousal and Dominance explain consumers' verbal expressions of approach-avoidance over the range of BPM-generated service environments investigated. Compared with past research Dominance was found to be significant. | The first research to illustrate the importance of Dominance Revised M&R model Beneficial in terms of the M&R model |

| | | | | | | |
|------------------------------------|--|-----------|---|---|--|--|
| Machleit and Erogula (2000) | 1 st wave 401 undergraduate students 2 nd wave 343 undergraduate students 3 rd wave 153 adult Respondents | USA | Field experiment | Emotions PAD | Purpose: To address the increasing sample of heterogeneity in evaluating emotional responses to retail environments Findings: That the Izard and Plutchik measures outperform the Mehrabian and Russell (1974) measure, they contain more information. | Izard and Plutchik have More information than M&R model Disagrees with the M&R model |
| Wirtz, Mattila and Tan (2000) | 240 undergraduate students | Singapore | Laboratory experiment A 2x2x2 factorial design | Target arousal levels Pleasure Approach-avoidance | Purpose: to investigate the impact of target affected states within Russell (1980) framework. They propose that when a consumer desires to be in a relaxing or low arousal environment that increasing arousal levels will reduce the effects of pleasure on satisfaction Findings: Support Mehrabian and Russell (1974) model that under high target arousal, that is, in pleasant (unpleasant) conditions the higher the arousal level, the more positive (negative) the satisfaction evaluation. However, in the low target arousal condition, subjects failed to exhibit higher levels of satisfaction in pleasant yet high arousing environments | Beneficial in terms of the M&R model Revised M&R model Agrees and disagrees with the M&R model Introduces the concept of Target-arousal |
| Yalch and Spangenberg (2000) | 71 marketing students | USA | Experimental 2x2 factorial design | Time Music Arousal Pleasure Dominance | Purpose: To investigate the effects of music in a retail environment on real and perceived shopping times Findings: That shopping time is affected by music. The effects of familiar and unfamiliar music were very different. | Not Beneficial in terms of the M&R model |
| Chebat, Chebat and Vaillant (2001) | 593 undergraduate business students | Canada | Laboratory Experiment A 4x2x2 factorial design | Music Music 'fit' Information load | Purpose: to understand the effects of music on customers' reactions. Findings: Music may attract attention onto itself, what is important to note is the music 'fit' Music fit is as important a research area as music pleasure and music arousal. | Not Beneficial in terms of the M&R model Concept of 'music fit' |

| | | | | | | |
|-----------------------------------|---------------------------------|-----------|--|---|---|---|
| Dubé and Morin (2001) | 110 shoppers | Canada | Field study | Servicescape Music | Purpose: to test the effects of background music of different pleasure intensity. Findings: that attitude towards servicescape, influenced by pleasure intensity, in turn, affected store evaluation. However the effect does not occur through automatic transfer of affect proposed by Mehrabian and Russell (1974) | Disagrees with the M&R Model Revised M&R model |
| Mattila and Wirtz (2001) | 270 customers | USA | Factorial design in a field setting | Arousal Pleasure Music Scent | Purpose: Hypothesised that matching arousing dimensions of scent and music will lead to enhanced pleasure, approach, impulse buying. Findings: when ambient scent & music are congruent with each other in terms of their arousing qualities consumers rate the environment significantly, more positively, have higher levels of approach and have impulse shopping behaviour and experience enhanced satisfaction then if the variables are at odds with each other. | Beneficial in terms of the M&R model Revised M&R model |
| Summers and Herbert (2001) | 2367 two stores (video cameras) | USA | A 2x2 Factorial experimental design | Lighting Approach-avoidance | Purpose: to investigate the influence of display lighting on consumer approach-avoidance behaviour. Findings: indicate that lighting levels do contribute to consumer approach behaviour. Results support Mehrabian and Russell (1974) model that increased levels of lighting will produce arousal and pleasure and increase the approach behaviours of consumers. | Beneficial in terms of the M&R model Revised M&R model Agrees with the M&R Model |
| Hightower, Brady and Baker (2002) | 125 game goers | USA | Field research | Servicescape Behavioural intentions | Purpose: To investigate the relationship between the physical environment on consumer behavioural intentions. Findings: that the servicescape does have a significant influence on consumer behavioural intentions; however this impact is mediated by a number of constraints. Also the relationship between the servicescape and these marketing constraints is complex | Beneficial in terms of research on the Servicescape Not beneficial in terms of the M&R model |
| Sweeney and Wyber (2002) | 128 female students | Australia | 2X2 experimental design | Music Approach avoidance | Purpose: to examine the effects of music on consumer responses. Findings indicated that liking of music has a major effect on consumers evaluations, while the music characteristics have an additional effect on pleasure and service quality. | Extends the M&R model Female student because female fashion shop |
| Chebat and Michon (2003) | 145 shopping mall subjects | Canada | Two factor experiment (actual retail location) | Pleasure Arousal Approach-avoidance | Purpose: to test the effects of ambient scents in a shopping mall environment with the use of the Mehrabian and Russell (1974) Model. Findings: Ambient scent contributes to the building of a favourable | Found that Lazarus (1991) Model was more beneficial than M&R |

| | | | | | | |
|----------------------------------|---|--------------|---|--|---|---|
| | | | | behaviour. Odour | perception of the mall environment, and indirectly of product quality. Some of their findings agree with Lazarus (1991) theory which contradicts the approach-avoidance model. | |
| Gilboa and Rafaeli (2003) | 130 undergraduate students | Israel? | Laboratory experiment | PAD dimensions Approach-Avoidance | Purpose: to examine the store environment on emotions and behaviour tendencies. Findings: the study confirmed the mediating role of the basic dimensions predicted by M & R (1974). | Beneficial in terms of the M&R model Agrees and disagrees with The M&R model |
| Babin, Hardesty and Suter (2003) | 209 females from a university community | USA | Experimental factorial design 2x2x2 between-subject design | Colour Lighting | Purpose: To investigate the effects of Colour and lighting together on consumers reactions. Findings: Consistent with previous research consumers reacted more favourably to cool store interiors. Also consumers reported the lowest evaluation, excitement, price fairness, patronage and purchase intentions in the orange and bright condition. | Consistent with the M&R Model Revised M&R model |
| Reimer and Kuehn (2004) | 580 bank sample 565 restaurant sample | Switzer-land | Field research | Servicescape | Purpose: to explore the effect of the servicescape on perceived quality. Findings: The servicescape has a direct and indirect effect on perceived service quality. Also the servicescape is of greater importance in determining customers' evaluations in a hedonic service compared to a utilitarian service. | Beneficial in terms of research on the Servicescape |
| Bigne, Andreu and Gnoth (2005) | 200 Spanish/Mediterranean Theme park consumers aged 18+ | Spain | Field experiment | Pleasure Arousal Satisfaction Approach/avoidance behaviour | Purpose: to test the Mehrabian and Russell (1974) model and Lazarus' cognitive theory. Findings: Positive arousal influences visitor's pleasure positively. It was found that pleasure was linked to consumer satisfaction. | Found Lazarus theory to be more beneficial than M&R model |

| | | | | | | |
|--|--|--------|--|--|--|---|
| Spangenberg, Grohmann and Sprott (2005) | 130 undergraduate students aged 20-55 | USA | Laboratory Experiment A 2x2 full factorial design | Odour Music PAD Dimensions | Purpose to explore the joint effects of ambient scent and music on customers evaluations of a store Findings: That consistency between an ambient scent and music in retail settings leads to more favourable evaluation of the store. Also Behavioural intentions to visit are also positively affected. | Beneficial for seasonal Information (Christmas) Uses M&R PAD Dimensions |
| Mattilla and Wirtz (2006) | 178 part time MBA and undergraduate students | USA | Laboratory Experiment A 3x3 factorial design | Arousal Service evaluations | Purpose: to test a theoretical framework that explains arousal congruency effects on consumer perceptions of intrinsically pleasant environments .Findings: they indicate that an intrinsically attractive store environment can be perceived as unpleasant if it fails to match the consumers desired level of stimulation (arousal congruency). Note the term target-arousal | Found that Target arousal is important. Revised M&R model |
| Spangenberg, Sprott, Grohmann and Tracy (2006) | 181 shoppers 82 men 99 female | USA | Field Experiment | Odour Approach-avoidance | Purpose: to explore the evaluative and behavioural effects of congruity between ambient scent and store's gender based products. Findings: shoppers evaluate store more favourably, have more approach behaviours when the scent is congruent with the gender based products then when it is incongruent. | S-O-R model used |
| Chebat and Morin (2007) | 587 adult shoppers | Canada | Field experiment | Colour Shoppers perceptions Pleasure and Arousal | Purpose: To explore the effects of warm and cool colours on shoppers perceptions Findings: Results indicated that colour schemes can have significant effects on shopper's perceptions of the environment. However mall décor did not affect shoppers self reported pleasure and arousal levels | Use of the M&R scale Manipulation of colour in a mall (cognitive cueing effects as opposed to consumer response through mood) |
| Newman (2007) | 100 respondents at airport terminals | UK | Field experiment | PAD Approach-avoidance Servicescape | Purpose: To explore and test taxonomy development. Findings: That consumer's responses towards a service setting can be expressed in terms of PAD. Also desire to stay or go can be expressed in terms of approach and avoidance. | Revised the M&R model |

Appendix 2

Email sent to managers

To Mr. X,

My name is Treasa Kearney and I was speaking with [Mr./Mrs. X] regarding research. [X] gave me your details and indicated that you might be interested in taking part in store research.

I am a PhD researcher at DIT and I am conducting research in store atmospherics, customer satisfaction and employee loyalty. My research would involve administering questionnaires in store to both employee and customers over one day.

I have attached a short two page document outlining my research and how it could be of benefit to you. The current pilot draft of the customer questionnaire and employee questionnaire are also attached. This will be shorted in the next couple of weeks when the pilot study has been completed. This questionnaire can also be customized to meet your needs.

I know this time of year is an exceptionally busy period for you and I hope that you will be able to spare a few minutes to have a look at the questionnaires. I really appreciate you taking time to help me with my research and I feel that it could be of huge benefit to you. I would hope to collect the data in March.

I hope to be in contact soon, if you have any questions please do not hesitate to call me on

085 6144896 .

Kind Regards

Treasa Kearney

Short Description of Research

The purpose of this research is to understand how customers react to the retail environment and ultimately how these reactions to issues such as colour, music, lighting, layout and odour contribute to their impressions of service quality and their loyalty to the store. A core aspect of this research is to understand the interplay between the working environment and the loyalty of employees as they experience the environment for much longer periods than the customers do. The major outcome of this research is a model that links the environment experienced by the customers, and employees, to financial outcomes.

Research Objectives

The objectives are

- To explore how employee satisfaction and customer satisfaction relates to financial performance.
- To discover the impact of a pleasurable store atmosphere on the financial performance.
- To find out how the store atmosphere affects the customer's satisfaction
- To find out how the stores atmosphere affects employee's satisfaction

Currently, many retail grocery stores have less money to spend and it is important to find key areas to spend what limited finances you have. A stores environment impacts two key groups, customers and employees. By examining the stores environment vital information can be gained and informed decisions can be made on where best to put the limited funding.

The Proposed data collection

The proposal is to distribute questionnaires, to the store manager/assistant manager, to three or more till operators and to 80-100 customers. I would be administering the questionnaires in store over one day. For the purpose of the research, data from employee and customers would need to be collected on the same day. The employee questionnaire takes 7- 10 minutes and the customer questionnaire takes 8-12 minutes.

In order to adequately model financial outcomes, some data of that nature is needed from the customer and also some data on the macro-environmental issues facing the store will be collected. These can be adapted to meet other requirements that you would like me to look at.

Benefits for your Store

A significant piece of research which can be customised to your own needs carried out by trained researchers. An in-depth look at how customers perceive the retail environment in the store is an important benchmark for future store development and I feel that this would be something of interest for you to know more about.

- **Employees**

It is important for managers to be aware of how the physical store environment impacts the employee. The employee plays a key role in grocery stores as they interact with the customer. Their satisfaction can have an impact on customer satisfaction. Furthermore satisfied employees will stay in their jobs for longer. This reduces training costs and in the long run can reduce a series of costs for the company. The research is looking at how the environment in which they work can affect their satisfaction in the work place.

- **Customers**

An important element to this research is that you are gaining customers perspectives on what they think of the stores atmosphere. Customers are key to the financial success of the company and their input could help improve your profits. This research hopes to gain an understanding of how the stores atmosphere can impact customer's satisfaction and how this can then lead to customer loyalty. Having an enjoyable environment to shop in has been shown to encourage customer loyalty. In the long term this can lead to lower financial costs and higher spends.

Appendix 3

Thank you letter

<Address>

19th of May 2011

To Mr X,

Thank you for taking the time to help me with my research. I really appreciate the time and effort that you have contributed to this research. The employees who took part in the research were very helpful and it was a pleasure to work with them for the day. They gave me great insight and were very cooperative. A big thank you as well to your customers that helped me out on the day, without all those that took part I would not be on my way to completing my PhD.

Kind Regards

Treasa Kearney
PhD Researcher
DIT
Aungier Street
Dublin 2

Appendix 4a

Interview Guide for Managers

Background

Q Could you tell me a little about your background?

Maybe how you came about this job?

How long have you been working in this role/similar roles?

Refurbishment

When was the last time the store was refurbished or updated?

Do you think the refurbishment of the store was beneficial for the customer or maybe the employee? Or do you think a refurbishment of the store would be beneficial for the customer or maybe the employee

Have you seen a change in how employees approach their work since the refurbishment?

Have customers given you any feedback of what they think of the refurbishment?

Music

Do you feel the stores music plays an important role in creating a good store atmosphere? Why?

Do you feel that the music played in store can help in creating a pleasurable store atmosphere? How?

Are there any aspects, for example the music being too loud that make it more difficult to satisfy the employee or the customers?

Colour & Lighting

Do you feel that the colour of the walls and the facilities are suitable for the store?

How do you think it adds to the stores atmosphere?

Do you think the stores colour creates a cheerful atmosphere? How

Do you feel the stores colour impact a customer's satisfaction? How? What about the employees?

And do you think the lighting in the store is suitable for creating a good store atmosphere? Why?

Layout

Do you think the layout of the aisles are beneficial to the stores atmosphere?

And do you feel that the store layout has an impact on employee's satisfaction? How?

In relation to the customer do you think the layout can encourage shopping? How

Do you think the layout of the store, for example the distance between the aisles or the way they are laid out can create a more pleasant store atmosphere for the customer?

Do you feel that having clear signs in the store can help in keeping a customer satisfied?

Aroma

How important do you feel the presence of a pleasant aroma in the store is?

Do you think that the stores aroma creates a cheerful atmosphere to shop or work in?

Are there any aromas that you feel can communicate a pleasurable atmosphere for the customer? For example, the stores aroma of freshly baked goods? How does it help create a pleasing atmosphere?

General Store Atmosphere

What are the aspects of the store atmosphere that you think facilitate the employee's satisfaction?

Do you feel they same aspects are important to the customer's satisfaction? Or are there other aspects of the stores atmosphere more important for their satisfaction?

Is there any particular aspect of the store atmosphere that you think is more important? Why?

Is there any aspect, for example the lighting of the store, or the stores window design that you are able to change?

Could you give me an example of how you changed different aspects to create a better store atmosphere?

For example if the store gets too cold or too hot for the employees and the customers, are you able to make changes to suit them?

And do you feel you can change other aspects of the stores atmosphere? Such as the volume of the music or the tempo of it?

How important is it to have control over these aspects do you think?

Employee Satisfaction

Do you think it is important to know if your employees are happy in their jobs?
Why?

How do you check if your employees are satisfied with their job?

How do employees who are happy in their jobs differ from those that are not happy in their jobs?

Employee Loyalty

Could you tell me how important is it to the store to keep employees in their jobs?

Do you think keeping the same employees is beneficial to the company?why?

Do you feel that training an employee can encourage them to stay?

Do you train them to interact with customers? Why?

How important do you think it is for the customer to have employees that they know in store?

Customer Satisfaction

Could you tell me the importance of keeping the customer satisfied? Could you give me an example of how the customer is kept happy within the store?

How do you deal with customer complaints?

Customer Loyalty

Do you feel customers desire to return to the same store?

Do you think it is important for the same customer to return and repeat purchase?
Why?

How do you think customers desire to return to the same store can be maintained by the store?

Further comments....

Is there anything else you would like to add that you think might be relevant to the area?

To whom it concerns

Appendix 4b

Interview guide for Customers

General

Where would you go to buy a few items that you might need?

Would it be the same place as where you would do your large shop?

Layout

Do you think that the layout of the store makes it easy to find what you are looking for?

Do you think that the layout of the aisles encourages you to look around the store more?

How does the signage help to find what you are looking for in the store?

Music

Do you think the music in the store is suitable for creating a good store atmosphere?

And do you feel the music creates a cheerful store atmosphere?

Or does the stores music make you feel happy to be in the store?

Colour

What do you think of the stores colour scheme?

Do you think the stores colour scheme is attractive/ pleasurable to shop in?

Lighting

How does the lighting in the store influence your shopping experience?

And do you think that the lighting can create a pleasurable atmosphere to shop in?

How

Or do you think the lighting in the store puts you in a good mood? How?

Aroma

What do you think of the smell of freshly baked bread in the store?

General Store Atmosphere

What do you think is the most important aspect of the stores atmosphere? or is it a combination of different aspects?

Do you feel you can control any aspect of your shopping experience to create it more enjoyable? For example asking an employee to change the music or scanning your own products at the till?

Customer Satisfaction

Do you find the employees in store to be approachable?

Whilst shopping in [name the shop] do you find that employee to be helpful in the way they serve you? How?

Were you satisfied with your shopping experience in the store? Why

Customer loyalty

Would you recommend others to shop here?

Would you come back here to shop again? Why

Do you think returning to the same store makes the shopping easier? Why

Further comments

Is there anything else that you would like to add that you feel would be relevant to the area?

Appendix 5a

Customer Questionnaire (word format)

Please indicate your gender

Male Female

Date _____

Time of day _____

Store Location _____

What age group do you belong to?

18-25 26-35 36-45 46-55 56-65 66+

Please indicate your occupation

Student Working Unemployed Stay at home parent

How much did you spend in store today?

€0- €15 €15-€30 €30-€45 €45-€60 €60- €90 € 90+

How long did you spend in the store?

Less than 10min 10- 20min 20 -30 min 30 -40 min 40 min +

What was the shopping intention of your visit? (Please tick just one)

Pick up some forgotten items To do a small grocery shop To do the large weekly food shop To pick up some lunch Other _____

How many times would you visit this store on a weekly basis? _____

What would be your average spend per visit?

€0- €15 €15-€30 €30-€45 €45-€60 €60- €90 € 90+

Do you have a loyalty/value card for this store? Yes/No

If Yes, did you use the loyalty card on this occasion? Yes/No

How often would you use the loyalty card when you visit this store?

Every time Most of the time Occasionally Rarely Never

SECTION 2

Q1 How satisfied were you with the service you received from the **employee at the checkout in terms of...**

| | Strongly Satisfied | | | | | Strongly Dissatisfied | |
|--|--------------------|---|---|---|---|-----------------------|---|
| Providing fast service to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Being courteous and friendly | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Providing an accurate service for me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Willingness to help me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Making me feel secure about my transactions. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Showing sincere interest in me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Resolving problems quickly for me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Q2. In comparison to other stores within a 5 km radius...

| | Strongly Agree | | | | | Strongly Disagree | |
|------------------------------------|----------------|---|---|---|---|-------------------|---|
| This stores pricing is competitive | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Q3. Please circle your level of agreement with each of these statements (Please circle only one number per line)

| | Strongly Agree | | | | | | Strongly Disagree |
|---|----------------|---|---|---|---|---|-------------------|
| The materials used inside the store are pleasing & of high quality | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store is cluttered | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store layout never fails to impress me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The music played in the store is pleasant | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The overall lighting level in the store is appropriate | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store has a pleasant smell. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| In this store, the aisles between the shelves are wide enough to pass through easily. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The signs in the store provide adequate direction | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The aroma in this store is pleasant. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store has clean aisles and exits. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| This store is decorated in an attractive fashion. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The colours used create a pleasant atmosphere | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The lighting creates a comfortable atmosphere | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The interior décor of this store is attractive. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| It is easy to walk around this store and find what you are looking for. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The colour scheme in the store is attractive. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The lighting is excellent at the store. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The stores layout allows me to move around easily | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The music in the store is played at an appropriate volume. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store understands that the design of its facility is important to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The aroma in the store is fitting. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store maintains clean food service areas | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The use of colour in the decor scheme adds excitement to this store environment | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The music played in the store is appropriate. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The interior design is visually appealing | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store is not kept clean | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Q4. Please circle your level of agreement with each of these statements

| | Strongly Agree | | | | | | Strongly Disagree |
|---|----------------|---|---|---|---|---|-------------------|
| I am a loyal customer of this store | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| This store is the first choice for me among the same types of store | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I will visit this store even if others are cheaper | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Say positive things about the store to other people | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Recommend the store to someone who seeks your advice | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Encourage friends to do business with the store | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Encourage relatives to do business with the store | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Do more business with the store in the next few months | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Q5. As in the following example, please circle the number closest to the adjective that best describes your feelings with regard to shopping in this store. For Example, I feel...shopping in this store

| Good | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Bad |
|-------------------------|---|---|---|---|---|---|---|-------------|
| Happy | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Unhappy |
| Bored | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Relaxed |
| Calm | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Excited |
| Unstimulated | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Stimulated |
| Restricted in the space | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Free to act |
| Guided | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Independent |
| Unsatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Satisfied |
| Depressed | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Content |
| Indifferent | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Agitated |
| Sleepy | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Wide awake |
| In Control | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Cared for |
| Influential | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Influenced |
| Hopeful | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Frustrated |
| Pleased | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Annoyed |
| Uncrowded | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Crowded |
| Dull | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fidgety |
| Controlled by the space | 1 | 2 | 3 | 4 | 5 | 6 | 7 | In-control |
| Unimportant | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Important |

Q6. Please circle your level of agreement with each of these statements

In comparison to other grocery stores.....

Strongly

Strongly

Agree

Disagree

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|--|---|---|---|---|---|---|---|
| The arrangement of this stores interior layout is better | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| This store's aisles are more spacious | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The design of this store's checkout facilities is better | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The design of this store's front is better | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Employees give me personal attention. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I am treated well by employee | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Employees are willing to help me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store offers high-quality service. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Employees are not too busy to respond to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I believe the store offers excellent service. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Thank You

Thank you for completing the questionnaire and your participation in this study is very much appreciated. If there are any additional comments regarding your experience please include them in the space provided below.

If you would like to be entered into the draw for €300 SUPERVALU vouchers, please enter your name and contact information below

Name_____

Email/Phone_____

Appendix 5b

Employee Questionnaire (word format)

SECTION 1 (BLOCK CAPITAL PLEASE) _____

Date _____

Time of day _____

Store Location _____

Please indicate your gender

Male Female

What age group do you belong to?

18-25 26-35 36-45 46-55 56-65 66+

How long have you been working here? _____

Are you a full time or a part time employee in this store?

Full time Part Time

How many hours a week do you work? _____

Employee Loyalty

Please circle only one number per line

| | Strongly Agree | | | | | Strongly Disagree | |
|--|----------------|---|---|---|---|-------------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Most of the time I am willing to put in extra effort so that the store remains a leading store | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I speak highly of the shop in which I work to my friends | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel proud to work at this store | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I would turn down a job with comparable pay and career prospects to stay at this store | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I care about the fate of the shop in which I work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Employee Satisfaction

Please circle your level of agreement with each of these statements

| | Strongly Agree | | | | | Strongly Disagree | |
|---|----------------|---|---|---|---|-------------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Generally speaking, I am very satisfied with this job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I do not intend to work for a different company | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I like my job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| There are no fundamental things I dislike about my job. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I like my job more than many employees of other companies | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I consider this employer as first choice | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I am generally satisfied with the kind of work I do in this job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I frequently think of quitting this job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

SECTION 2

As in the following example, please circle the number closest to the adjective that best describes your feelings with regard to working in this store. For example I feel..... working in this store

| Good | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Bad |
|--------------------------|----------|----------|----------|----------|----------|----------|----------|----------------|
| Happy | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Unhappy |
| Bored | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Relaxed |
| Calm | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Excited |
| Unstimulated | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Stimulated |
| Restricted in the space | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Free to act |
| Guided through the store | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Free to Choose |
| Unsatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Satisfied |
| Depressed | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Content |
| Indifferent | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Agitated |
| Sleepy | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Wide awake |
| In Control | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Stressed |
| Influential | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Influenced |
| Hopeful | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Frustrated |
| Pleased | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Annoyed |
| Uncrowded | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Crowded |
| Relaxed | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fidgety |
| Controlled by the space | 1 | 2 | 3 | 4 | 5 | 6 | 7 | In-control |
| Unimportant | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Important |

Servicescape Elements

Please circle your level of agreement with each of these statements

| | Strongly Agree | | | | | | Strongly Disagree | | | | | | | |
|---|-----------------------|---|---|---|---|---|--------------------------|---|---|---|---|---|---|---|
| The materials used inside the store are pleasing& of high quality | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The colours used create a pleasant atmosphere | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| This service provider's layout never fails to impress me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The music played in the store is pleasant. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The overall lighting level in this store environment is appropriate | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store has a pleasant smell. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| In this store, the aisles between the shelves are wide enough to pass through easily. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The signs in this store environment provide adequate direction | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The aroma in this store is pleasant. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store has clean walkways and exits. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| This store is decorated in an attractive fashion. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store is cluttered | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The lighting creates a comfortable working atmosphere | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The interior décor of this store is attractive. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| It is easy to walk around this store and find what you are looking for. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The colour scheme in the store is attractive. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The lighting is excellent at the store. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| This stores layout allows me to shop easily | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The store is not kept clean | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The music in the store is played at an appropriate volume. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| The store understands that the design of its facility is important to me. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The aroma in the store is fitting. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| This facility maintains clean food service areas | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The use of colour in the decor scheme adds excitement to this store environment | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The music played in the store is appropriate. | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The interior design is visually appealing | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Strongly Agree

Strongly Disagree

Emotional exhaustion

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| I feel emotionally drained from my work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel used up at the end of the working day | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel fatigued when I get up in the morning and have to face another day at work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Working with people all day is really a strain for me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel burned out from my work | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel I am working too hard on my job | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Working with people directly puts too much stress on me | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel like I am at the end of my tether | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Appendix 5c

Manager Questionnaire (word Format)

SECTION 1 (BLOCK CAPITAL PLEASE) _____ Date _____

Managers Name _____

Time of day _____

Store Location _____

What size is the shop floor (sq/m)? _____

What age group do you belong to?

18-25 26-35 36-45 46-55 56-65 66+

Are you a full-time or part-time manager? _____

How many hours a week do you work? _____

How long have you been working in this industry? _____

How long have you been working for Supervalu? _____

How long have you been the store manager in this store? _____

Did you work as a store manager before this store on behalf of Musgrave? Yes/ No

If Yes, How many years? _____

When was the store last refurbished? _____ When was the store opened? _____

SECTION 2

Q1. Please circle only one number per line

| | Strongly Agree | | | | | | Strongly Disagree | |
|--|----------------|---|---|---|---|---|-------------------|--|
| Most of the time I am willing to put in extra effort so that the store remains a leading store | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| I speak highly of the shop in which I work to my friends | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| I feel proud to work at this store | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| I would turn down a job with comparable pay and career prospects to stay at this store | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| I care about the fate of the shop in which I work | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

Q.2 Please circle your level of agreement with each of these statements

| | Strongly Agree | | | | | | Strongly Disagree | |
|---|----------------|---|---|---|---|---|-------------------|--|
| Generally speaking, I am very satisfied with this job | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| I do not intend to work for a different company | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| I like my job | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| There are no fundamental things I dislike about my job. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| I like my job more than many employees of other companies | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| I consider this employer as first choice | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| I am generally satisfied with the kind of work I do in this job | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| I frequently think of quitting this job | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |

Q.3 In comparison to other stores within a 5 km radius...

| | Strongly Agree | | | | | | Strongly Disagree |
|------------------------------------|----------------|---|---|---|---|---|-------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| This stores pricing is competitive | | | | | | | |

Q.4 Please circle your level of agreement with each of these statements

| | Strongly Agree | | | | | | Strongly Disagree |
|---|----------------|---|---|---|---|---|-------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The materials used inside the store are pleasing & of high quality | | | | | | | |
| The store is cluttered | | | | | | | |
| The store layout never fails to impress me | | | | | | | |
| The music played in the store is pleasant | | | | | | | |
| The overall lighting level in the store is appropriate | | | | | | | |
| The store has a pleasant smell. | | | | | | | |
| In this store, the aisles between the shelves are wide enough to pass through easily. | | | | | | | |
| The signs in the store provide adequate direction | | | | | | | |
| The aroma in this store is pleasant. | | | | | | | |
| The store has clean aisles and exits. | | | | | | | |
| This store is decorated in an attractive fashion. | | | | | | | |
| The colours used create a pleasant atmosphere | | | | | | | |
| The lighting creates a comfortable working atmosphere | | | | | | | |
| The interior décor of this store is attractive. | | | | | | | |
| It is easy to walk around this store and find what you are looking for. | | | | | | | |
| The colour scheme in the store is attractive. | | | | | | | |
| The lighting is excellent at the store. | | | | | | | |
| The stores layout allows me to move around easily | | | | | | | |
| The music in the store is played at an appropriate volume. | | | | | | | |
| The store understands that the design of its facility is important to me. | | | | | | | |
| The aroma in the store is fitting. | | | | | | | |
| The store maintains clean food service areas | | | | | | | |
| The use of colour in the decor scheme adds excitement to this store environment | | | | | | | |
| The music played in the store is appropriate. | | | | | | | |
| The interior design is visually appealing | | | | | | | |
| The store is not kept clean | | | | | | | |

Q4. Please circle your level of agreement with each of these statements

| | Strongly Agree | | | | | | Strongly Disagree |
|---|----------------|---|---|---|---|---|-------------------|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| I feel emotionally drained from my work | | | | | | | |
| I feel 'used up' at the end of the working day | | | | | | | |
| I feel fatigued when I get up in the morning and have to face another day at work | | | | | | | |
| Working with people all day is really a strain for me | | | | | | | |
| I feel burned out from my work | | | | | | | |
| I feel I am working too hard | | | | | | | |
| Working with people directly puts too much stress on me | | | | | | | |

I feel like I am at the end of my tether 1 2 3 4 5 6 7

Q.5 As in the following example, please circle the number closest to the adjective that best describes your feelings with regard to working in this store. For example I feel..... working in this store

| Good | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Bad |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|-------------|
| Happy | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Unhappy |
| Bored | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Relaxed |
| Calm | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Excited |
| Unstimulated | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Stimulated |
| Restricted in the space | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Free to act |
| Guided | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Independent |
| Unsatisfied | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Satisfied |
| Depressed | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Content |
| Indifferent | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Agitated |
| Sleepy | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Wide awake |
| In Control | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Cared for |
| Influential | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Influenced |
| Hopeful | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Frustrated |
| Pleased | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Annoyed |
| Uncrowded | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Crowded |
| Dull | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Fidgety |
| Controlled by the space | 1 | 2 | 3 | 4 | 5 | 6 | 7 | In-control |
| Unimportant | 1 | 2 | 3 | 4 | 5 | 6 | 7 | Important |

SECTION 3

What is the number of full time employees working in this store ? _____

What is the number of part-time employees working in this store? _____

Please circle your level of agreement,

The firms overall performance compared with major competitors, within a 5 km radius, in terms of ...is.

| | Far below Competitors | | | | | Far above Competitors | |
|---|-----------------------|---|---|---|---|-----------------------|---|
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The sales growth | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The market Share | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The profit growth | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The average scanning margin for the store | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| The average footfall of the store | 1 | 2 | 3 | 4 | 5 | 6 | 7 |

Appendix 6

Tables of Factors

Tables of Factors

* T = Table

| | M | DE | L | LAY | O | QD | QE | CS | CLA | CLB | EM | EDE | ELI | ELAY | EO | ES | EL |
|----------------------------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|------|------|----|
| Music (M) | | | | | | | | | | | | | | | | | |
| Design (D) | T* 1 | | | | | | | | | | | | | | | | |
| Lighting (L) | T 2 | T 17 | | | | | | | | | | | | | | | |
| Layout (LAY) | T 3 | T 18 | T 32 | | | | | | | | | | | | | | |
| Olfaction (O) | T 4 | T 19 | T 33 | T 46 | | | | | | | | | | | | | |
| Design Quality (QD) | T 5 | T 20 | T 34 | T 47 | T 59 | | | | | | | | | | | | |
| Employee Quality (QE) | T 6 | T 21 | T 35 | T 48 | T 60 | T 71 | | | | | | | | | | | |
| Customer Satisfaction (CS) | T 7 | T 22 | T 36 | T 49 | T 61 | T 72 | T 82 | | | | | | | | | | |
| CLA | T 8 | T 23 | T 37 | T 50 | T 62 | T 73 | T 83 | T 92 | | | | | | | | | |
| CLB | T 9 | T 24 | T 38 | T 51 | T 63 | T 74 | T 84 | T 93 | T 101 | | | | | | | | |
| E-music (EM) | T 10 | T 25 | T 39 | T 52 | T 64 | T 75 | T 85 | T 94 | T 102 | T 109 | | | | | | | |
| E-design (ED) | T 11 | T 26 | T 40 | T 53 | T 65 | T 76 | T 86 | T 95 | T 103 | T 110 | T 116 | | | | | | |
| E-lighting (EL) | T 12 | T 27 | T 41 | T 54 | T 66 | T 77 | T 87 | T 96 | T 104 | T 111 | T 117 | T 122 | | | | | |
| E-layout (ELAY) | T 13 | T 28 | T 42 | T 55 | T 67 | T 78 | T 88 | T 97 | T 105 | T 112 | T 118 | T 123 | T 127 | | | | |
| E-olfaction (EO) | T 14 | T 29 | T 43 | T 56 | T 68 | T 79 | T 89 | T 98 | T 106 | T 113 | T 119 | T 124 | T128 | T 131 | | | |
| Employee Satisfaction (ES) | T 15 | T 30 | T 44 | T 57 | T 69 | T 80 | T 90 | T 99 | T 107 | T 114 | T 120 | T 125 | T129 | T 132 | T134 | | |
| Employee Loyalty (EL) | T 16 | T 31 | T 45 | T 58 | T 70 | T 81 | T 91 | T 100 | T 108 | T 115 | T 121 | T 126 | T130 | T 133 | T135 | T136 | |

1.1 **Table 1 Music (M) and Design (DE)**

| Label | Item | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .57 | .39 | 7.10 | .46 |
| M2 | The music in the store is played at an appropriate volume. | .68 | .29 | 8.63 | .61 |
| M3 | The music played in the store is appropriate. | .78 | .21 | 9.84 | .74 |
| DE2 | This store is decorated in an attractive fashion | .66 | .22 | 9.46 | .66 |
| DE4 | The store understands that the design of its facility is important to me. | .72 | .35 | 8.81 | .60 |
| DE5 | The interior design is visually appealing | .77 | .13 | 11.26 | .82 |
| C2 | The colour scheme in the store is attractive | .57 | .19 | 9.13 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .64 | .25 | 9 | .62 |

Chi-Square 35.14, df 19, P-value 0.01342, RMSEA 0.094, SRMR.043, GFI .92, NFI .96, CFI .98

1.2 **Table 2 M and Lighting (L)**

| Label | Item | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .70 | .51 | 7.29 | .49 |
| M2 | The music in the store is played at an appropriate volume. | .80 | .36 | 8.68 | .64 |
| M3 | The music played in the store is appropriate. | .83 | .31 | 9.16 | .69 |
| L2 | The lighting creates a comfortable atmosphere | .83 | .32 | 8.64 | .68 |
| L3 | The lighting is excellent at the store. | .87 | .24 | 9.14 | .76 |

Chi-Square 6.14, df 4, P-value 0.18922, RMSEA 0.075, SRMR.032, GFI .98, NFI .98, CFI .99

1.3 **Table 3 M and Layout (LAY)**

| Label | Item | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .68 | .53 | 7.08 | .47 |
| M2 | The music in the store is played at an appropriate volume. | .82 | .32 | 9.03 | .68 |
| M3 | The music played in the store is appropriate. | .82 | .33 | 9.02 | .67 |
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .59 | .65 | 5.89 | .35 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .78 | .40 | 8.19 | .60 |
| LAY5 | The signs in the store provide adequate direction | .83 | .30 | 8.97 | .70 |

Chi-Square 25.05, df 8, P-value 0.00152, RMSEA 0.149, SRMR.070, GFI .92, NFI .92, NNFI .89, CFI .94

1.4 **Table 4 M and Olfaction (O)**

| Label | Item | Standardised Loadings | Error Variance | t-value | R ² |
|--------|--|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .67 | .56 | 6.95 | .44 |
| M2 | The music in the store is played at an appropriate volume. | .87 | .24 | 9.96 | .76 |
| M3 | The music played in the store is appropriate. | .77 | .40 | 8.43 | .60 |
| O2 | The aroma in this store is pleasant. | .77 | .40 | 8.57 | .60 |
| O3 | The aroma in the store is fitting. | .91 | .17 | 10.86 | .83 |
| CLEAN3 | The store maintains clean food service areas | .70 | .52 | 7.43 | .48 |

Chi-Square 9.85, df 8, P-value 0.27593, RMSEA .049, SRMR.036, GFI .97, NFI .98, NNFI .99, CFI .99

1.5 **Table 5 M and Quality Design (QD)**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .72 | .49 | 7.42 | .51 |
| M2 | The music in the store is played at an appropriate volume | .79 | .37 | 8.33 | .63 |
| M3 | The music played in the store is appropriate. | .83 | .31 | 8.82 | .69 |
| QE1 | Employees give me personal attention. | .90 | .18 | 11.32 | .82 |
| QE2 | I am treated well by employee | .90 | .18 | 11.36 | .82 |
| QE4 | The store offers high-quality service | .88 | .22 | 10.85 | .78 |
| QE5 | Employees are not too busy to respond to me | .77 | .25 | 8.87 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .14 | 10.70 | .76 |

Chi-Square 28.61, df 19, P-value 0.07241, RMSEA 0.073, SRMR.053, GFI .93, NFI .96, CFI .99

1.6 **Table 6 M and Quality Employee (QE)**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .70 | .51 | 7.27 | .49 |
| M2 | The music in the store is played at an appropriate volume | .77 | .41 | 8.07 | .59 |
| M3 | The music played in the store is appropriate. | .86 | .26 | 89.35 | .74 |
| QD1 | The arrangement of this stores interior layout is better. | .85 | .28 | 9.93 | .72 |
| QD2 | This store's aisles are more spacious | .88 | .23 | 10.46 | .77 |
| QD3 | The design of this store's checkout facilities is better | .75 | .44 | 8.22 | .56 |
| QD4 | The design of this store's front is better | .75 | .44 | 8.28 | .56 |

Chi-Square 11.51, df 13, P-value 0.56839, RMSEA 0.000, SRMR.043, GFI .97, NFI .98, CFI 1.00

1.7 **Table 7 M and Customer Satisfaction (CS)**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .73 | .25 | 7.52 | .53 |
| M2 | The music in the store is played at an appropriate volume | .78 | .39 | 8.15 | .61 |
| M3 | The music played in the store is appropriate. | .83 | .31 | 8.69 | .69 |
| CS3 | Providing an accurate service for me | .87 | .25 | 10.53 | .75 |
| CS4 | Willingness to help me | .93 | .13 | 11.96 | .87 |
| CS5 | Making me feel secure about my transactions. | .89 | .21 | 10.85 | .79 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.88 | .69 |

Chi-Square 24.41, df 13, P-value 0.02756 RMSEA 0.096, SRMR.044, GFI .93, NFI .94, CFI .97

1.8 **Table 8 M and Customer Loyalty Attitudinal (CLA)**

| Label | Item | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .72 | .49 | 7.42 | .51 |
| M2 | The music in the store is played at an appropriate volume. | .78 | .40 | 8.13 | .60 |
| M3 | The music played in the store is appropriate. | .84 | .29 | 8.96 | .71 |
| CL2 | This store is the first choice for me among the same types of stores | .81 | .35 | 8.84 | .65 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .86 | .26 | 9.60 | .74 |
| CL4 | I will visit this store even if others are cheaper | .77 | .41 | 8.35 | .59 |

Chi-Square 4.93, df 8, P-value 0.76504, RMSEA 0.000, SRMR.035, GFI .98, NFI .98, CFI 1.00

1.9 **Table 9 M and Customer Loyalty Behavioural (CLB)**

| Label | Item | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .72 | .48 | 7.45 | .52 |
| M2 | The music in the store is played at an appropriate volume. | .77 | .41 | 8.01 | .59 |
| M3 | The music played in the store is appropriate. | .85 | .28 | 9.08 | .72 |
| CL5 | Say positive things about the store to other people | .88 | .23 | 10.92 | .77 |
| CL6 | Do more business with the store in the next few months | .86 | .25 | 10.61 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.09 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .10 | 12.50 | .90 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .43 | 8.70 | .57 |

Chi-Square=25.24, df=18, P-value=0.11845, RMSEA 0.065, SRMR.058, GFI .94, NFI .97, CFI .99

1.10 **Table 10 M and Employee Music (EM)**

| Label | Item | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .72 | .48 | 7.47 | .52 |
| M2 | The music in the store is played at an appropriate volume. | .79 | .38 | 8.25 | .62 |
| M3 | The music played in the store is appropriate. | .83 | .32 | 8.68 | .68 |
| EM2 | The music in the store is played at an appropriate volume. | .62 | .62 | 2.47 | .38 |
| EM3 | The music played in the store is appropriate. | .79 | .37 | 2.55 | .63 |

Chi-Square 2.85, df 4, P-value=0.58349, RMSEA 0.000, SRMR.032, GFI .99, NFI .98, CFI 1.00

1.11 **Table 11 M and Employee Design (EDE)**

| Label | Item | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .73 | .47 | 7.49 | .53 |
| M2 | The music in the store is played at an appropriate volume. | .78 | .38 | 8.17 | .62 |
| M3 | The music played in the store is appropriate. | .83 | .31 | 8.69 | .69 |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.12 | .35 |
| EDE3 | The interior décor of this store is attractive. | .82 | .33 | 9.52 | .67 |
| EDE4 | The store understands that the design of its facility is important to me. | .68 | .54 | 7.28 | .46 |
| EDE5 | The interior design is visually appealing | .73 | .47 | 7.98 | .53 |
| EC1 | The colours used create a pleasant atmosphere | .84 | .29 | 9.86 | .71 |
| EC2 | The colour scheme in the store is attractive | .85 | .27 | 10.11 | .73 |

Chi-Square 21.02, df 26, P-value 0.74074, RMSEA 0.000, SRMR.050, GFI .95, NFI .96, CFI 1

1.12 **Table 12 M and Employee Lighting (ELI)***

| Label | Item | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .73 | .47 | 7.51 | .53 |
| M2 | The music in the store is played at an appropriate volume. | .78 | .38 | 8.20 | .62 |
| M3 | The music played in the store is appropriate. | .83 | .32 | 8.72 | .68 |
| ELI2 | The lighting creates a comfortable working atmosphere | .94 | .12 | 9.64 | .88 |
| ELI3 | The lighting is excellent at the store. | .85 | .28 | 8.67 | .72 |

Chi-Square 9.44, df 11, P-value 0.58157, RMSEA 0.000, SRMR.047, GFI .97, NFI .96, , CFI 1, * ELI was problematic and EM was run with the analysis

1.13 **Table 13 M and Employee Layout (ELAY)**

| Label | Item | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .73 | .47 | 7.50 | .53 |
| M2 | The music in the store is played at an appropriate volume. | .78 | .39 | 8.14 | .61 |
| M3 | The music played in the store is appropriate. | .83 | .31 | 8.71 | .69 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .63 | .61 | 6.28 | .39 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .77 | .40 | 7.82 | .60 |
| ELAY5 | The signs in the store provide adequate direction | .90 | .20 | 9.16 | .80 |

Chi-Square 15.58, df 8, P-value=0.04885, RMSEA 0.099, SRMR .090, GFI .95, NFI .93, CFI .96

1.14 **Table 14 M and Employee Olfaction (EO)**

| Label | Item | Standardised Loadings | Error Variance | t-value | R ² |
|---------|--|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .73 | .47 | 7.52 | .53 |
| M2 | The music in the store is played at an appropriate volume. | .78 | .39 | 8.14 | .61 |
| M3 | The music played in the store is appropriate. | .83 | .31 | 8.70 | .69 |
| EO1 | The store has a pleasant smell. | .85 | .28 | 9.31 | .72 |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 7.84 | .55 |
| ECLEAN2 | The store has clean aisles and exists | .71 | .49 | 7.42 | .51 |
| ECLEAN3 | The store maintains clean food service areas | .63 | .61 | 6.31 | .39 |

Chi-Square 7.82, df 13, P-value 0.85542, RMSEA 0.000, SRMR.038, GFI .98, NFI .97, CFI 1

1.15 **Table 15 M and Employee Satisfaction (ES)**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .73 (.47) | .47 | 7.55 | .53 |
| M2 | The music in the store is played at an appropriate volume | .78 (.39) | .39 | 8.14 | .61 |
| M3 | The music played in the store is appropriate. | .83 (.32) | .32 | 8.68 | .68 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 (.27) | .27 | 10.31 | .73 |
| ES3 | I like my job | .90 (.19) | .19 | 11.26 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 (.34) | .34 | 9.56 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 (.49) | .49 | 7.90 | .51 |
| ES6 | I consider this employee as first choice | .80 (.36) | .36 | 9.36 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 (.19) | .19 | 11.26 | .81 |

Chi-Square 29.20, df 26, P-value 0.30223, RMSEA 0.036, SRMR.046, GFI .94, NFI .96, CFI 1

1.16 **Table 16 M and Employee Loyalty (EL)**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| M1 | The music played in the store is pleasant | .73 | .47 | 7.55 | .53 |
| M2 | The music in the store is played at an appropriate volume | .78 | .39 | 8.15 | .61 |
| M3 | The music played in the store is appropriate. | .83 | .32 | 8.67 | .68 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .29 | 9.73 | .71 |
| EL2 | I speak highly of the shop in which I work to my friends | .78 | .40 | 8.76 | .60 |
| EL3 | I feel proud to work at this store | .90 | .19 | 10.89 | .81 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .68 | 5.85 | .32 |
| EL5* | I care about the fate of the shop in which I work | .85 | .28 | 9.87 | .72 |

Chi-Square 20.26, df 18, P-value 0.31836, RMSEA 0.036, SRMR .058, GFI .94, NFI .97, CFI .99, * error covariance for EL1 EL5, 1.79

1.17 **Table 17 DE and L**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 | .37 | 9.15 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .77 | .41 | 8.79 | .59 |
| DE2 | This store is decorated in an attractive fashion | .81 | .34 | 9.45 | .66 |
| DE4 | The store understands that the design of its facility is important to me. | .79 | .37 | 9.13 | .63 |
| DE5 | The interior design is visually appealing | .90 | .18 | 11.30 | .82 |
| L2 | The lighting creates a comfortable atmosphere | .84 | .30 | 9.74 | .70 |
| L3 | The lighting is excellent at the store. | .86 | .26 | 10.07 | .74 |

Chi-Square 18.25, df 13, P-value 0.14842, RMSEA 0.065, RMR.029, GFI .95, NFI .98, CFI .99

1.18 **Table 18 DE and LAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .78 | .38 | 9.01 | .62 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .79 | .38 | 9.05 | .62 |
| DE2 | This store is decorated in an attractive fashion | .84 | .29 | 10.03 | .71 |
| DE4 | The store understands that the design of its facility is important to me. | .79 | .38 | 9.06 | .62 |
| DE5 | The interior design is visually appealing | .87 | .24 | 10.65 | .76 |
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .60 | .65 | 6.12 | .35 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .78 | .40 | 8.68 | .60 |
| LAY5 | The signs in the store provide adequate direction | .83 | .31 | 9.57 | .69 |

Chi-Square 25.48, df 19, P-value 0.14537, RMSEA 0.060, SRMR.038, GFI .94, NFI .97, CFI .99

1.19 **Table 19 DE and O**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 | .38 | 9.04 | .62 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 | .39 | 8.94 | .61 |
| DE2 | This store is decorated in an attractive fashion | .83 | .32 | 9.73 | .68 |
| DE4 | The store understands that the design of its facility is important to me. | .77 | .41 | 8.76 | .59 |
| DE5 | The interior design is visually appealing | .90 | .18 | 11.23 | .82 |
| O2 | The aroma in this store is pleasant. | .77 | .40 | 8.63 | .60 |
| O3 | The aroma in the store is fitting. | .90 | .18 | 10.81 | .82 |
| CLEAN3 | The store maintains clean food service areas | .71 | .50 | 7.63 | .50 |

Chi-Square 15.01, df 19, P-value 0.72204, RMSEA 0.000, SRMR.029, GFI .96, NFI .98, CFI 1.00

1.20 **Table 20- DE and QD**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .80 | .35 | 9.31 | .65 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .79 | .38 | 9.01 | .62 |
| DE2 | This store is decorated in an attractive fashion | .82 | .33 | 9.54 | .67 |
| DE4 | The store understands that the design of its facility is important to me. | .77 | .41 | 8.74 | .59 |
| DE5 | The interior design is visually appealing | .90 | .20 | 11.03 | .82 |
| QD1 | The arrangement of this stores interior layout is better. | .85 | .28 | 10.01 | .72 |
| QD2 | This store's aisles are more spacious | .87 | .25 | 10.28 | .75 |
| QD3 | The design of this store's checkout facilities is better | .75 | .44 | 8.31 | .56 |
| QD4 | The design of this store's front is better | .76 | .42 | 8.54 | .58 |

Chi-Square 29.06, df 26, P-value 0.30838, RMSEA 0.035, SRMR.040, GFI .94, NFI .97, CFI 1.00

1.21 **Table 21- DE and QE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 | .38 | 9.06 | .62 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 | .40 | 8.85 | .60 |
| DE2 | This store is decorated in an attractive fashion | .81 | .34 | 9.48 | .66 |
| DE4 | The store understands that the design of its facility is important to me. | .78 | .39 | 8.87 | .61 |
| DE5 | The interior design is visually appealing | .91 | .18 | 11.28 | .82 |
| QE1 | Employees give me personal attention. | .90 | .19 | 11.28 | .81 |
| QE2 | I am treated well by employee | .90 | .19 | 11.26 | .81 |
| QE4 | The store offers high-quality service | .89 | .21 | 10.98 | .79 |
| QE5 | Employees are not too busy to respond to me | .77 | .40 | 8.87 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .24 | 10.74 | .76 |

Chi-Square 52.92, df 34, P-value 0.02034, RMSEA 0.076, SRMR.056, GFI .90, NFI .96, CFI .99

1.22 **Table 22- DE and CS**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 | .37 | 9.11 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 | .40 | 8.82 | .60 |
| DE2 | This store is decorated in an attractive fashion | .83 | .33 | 9.56 | .67 |
| DE4 | The store understands that the design of its facility is important to me. | .77 | .40 | 8.75 | .60 |
| DE5 | The interior design is visually appealing | .91 | .18 | 11.21 | .82 |
| CS3 | Providing an accurate service for me | .87 | .25 | 10.55 | .75 |
| CS4 | Willingness to help me | .93 | .13 | 11.92 | .87 |
| CS5 | Making me feel secure about my transactions. | .89 | .21 | 10.97 | .79 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.89 | .69 |

Chi-Square 21.69, df 26, P-value 0.70571, RMSEA 0.000, SRMR.044, GFI .95, NFI .97, CFI 1.00

1.23 **Table 23 DE and CLA**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 (.37) | .37 | 9.1 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 (.39) | .39 | 8.88 | .61 |
| DE2 | This store is decorated in an attractive fashion | .81 (.34) | .34 | 9.48 | .66 |
| DE4 | The store understands that the design of its facility is important to me. | .77 (.41) | .41 | 8.71 | .59 |
| DE5 | The interior design is visually appealing | .91 (.17) | .17 | 11.32 | .83 |
| CL2 | This store is the first choice for me among the same types of stores | .80 (.36) | .36 | 8.87 | .64 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .86 (.26) | .26 | 9.80 | .74 |
| CL4 | I will visit this store even if others are cheaper | .77 (.41) | .41 | 8.39 | .59 |

Chi-Square 10.68, df 19, P-value 0.93426, RMSEA 0.000, SRMR.025, GFI .97, NFI .99, CFI 1.00

1.24 **Table 24 DE and CLB**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 | .37 | 9.13 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 | .39 | 8.86 | .61 |
| DE2 | This store is decorated in an attractive fashion | .81 | .34 | 9.48 | .66 |
| DE4 | The store understands that the design of its facility is important to me. | .78 | .40 | 8.83 | .60 |
| DE5 | The interior design is visually appealing | .91 | .18 | 11.24 | .82 |
| CL5 | Say positive things about the store to other people | .88 | .22 | 10.96 | .78 |
| CL6 | Do more business with the store in the next few months | .87 | .25 | 10.64 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.04 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .09 | 12.52 | .91 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .42 | 8.73 | .58 |

Chi-Square 30.98, df 33, P-value 0.56796, RMSEA 0.000, SRMR.052, GFI .94, NFI .98, CFI 1.00

1.25 **Table 25 DE, EM and ELI***

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 | .37 | 9.09 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 | .40 | 8.83 | .60 |
| DE2 | This store is decorated in an attractive fashion | .82 | .33 | 9.58 | .67 |
| DE4 | The store understands that the design of its facility is important to me. | .77 | .41 | 8.72 | .59 |
| DE5 | The interior design is visually appealing | .91 | .18 | 11.22 | .82 |
| EM2 | The music in the store is played at an appropriate volume. | .65 | .58 | 5.60 | .42 |
| EM3 | The music played in the store is appropriate. | .75 | .43 | 6.26 | .57 |
| ELI2 | The lighting creates a comfortable working atmosphere | .94 | .12 | 9.58 | .88 |
| ELI3 | The lighting is excellent at the store. | .85 | .28 | 8.59 | .72 |

Chi-Square 27.04, df 24, P-value 0.30251, RMSEA 0.036, SRMR.047, GFI .94, NFI .95, CFI .99, * ELI was analysed as it was problematic with the customer factor.

1.26 **Table 26 DE and EDE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 | .37 | 9.10 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 | .40 | 8.82 | .60 |
| DE2 | This store is decorated in an attractive fashion | .82 | .33 | 9.56 | .71 |
| DE4 | The store understands that the design of its facility is important to me. | .77 | .41 | 8.68 | .59 |
| DE5 | The interior design is visually appealing | .91 | .17 | 11.25 | .83 |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 9.84 | .35 |
| EDE3 | The interior décor of this store is attractive. | .82 | .32 | 10.11 | .68 |
| EDE4 | The store understands that the design of its facility is important to me. | .68 | .32 | 6.13 | .46 |
| EDE5 | The interior design is visually appealing | .73 | .47 | 9.54 | .53 |
| EC1 | The colours used create a pleasant atmosphere | .84 | .30 | 7.25 | .70 |
| EC2 | The colour scheme in the store is attractive | .85 | .27 | 8.00 | .73 |

Chi-Square 47.06, df 43, P-value 0.30982, RMSEA 0.031, SRMR.052, GFI .92, NFI .95, CFI .99

1.27 **Table 27 DE and ELI- See Table 25**

1.28 **Table 28 DE and ELAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 | .37 | 9.08 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 | .40 | 8.83 | .60 |
| DE2 | This store is decorated in an attractive fashion | .82 | .33 | 9.53 | .67 |
| DE4 | The store understands that the design of its facility is important to me. | .77 | .41 | 8.69 | .59 |
| DE5 | The interior design is visually appealing | .91 | .17 | 11.29 | .83 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .63 | .61 | 6.29 | .39 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .90 | .19 | 9.21 | .81 |
| ELAY5 | The signs in the store provide adequate direction | .77 | .41 | 7.78 | .59 |

Chi-Square 25.48, df 19, P-value 0.14532, RMSEA 0.060, SRMR.079, GFI .94, NFI .95, CFI .99

1.29 **Table 29 DE and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 | .37 | 9.08 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 | .40 | 8.83 | .60 |
| DE2 | This store is decorated in an attractive fashion | .82 | .33 | 9.53 | .67 |
| DE4 | The store understands that the design of its facility is important to me. | .77 | .41 | 8.70 | .59 |
| DE5 | The interior design is visually appealing | .91 | .17 | 11.29 | .83 |
| EO1 | The store has a pleasant smell. | .85 | .28 | 9.32 | .72 |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 7.84 | .55 |
| ECLEAN2 | The store has clean aisles and exists | .71 | .49 | 7.40 | .51 |
| ECLEAN3 | The store maintains clean food service areas | .62 | .61 | 6.29 | .39 |

Chi-Square 28.50, df 26, P-value 0.33430, RMSEA 0.032, SRMR.049, GFI .94, NFI .95, CFI .99

1.30 **Table 30 DE and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 | .37 | 9.07 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 | .40 | 8.84 | .60 |
| DE2 | This store is decorated in an attractive fashion | .82 | .33 | 9.53 | .67 |
| DE4 | The store understands that the design of its facility is important to me. | .77 | .41 | 8.72 | .59 |
| DE5 | The interior design is visually appealing | .91 | .17 | 11.28 | .83 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.31 | .73 |
| ES3 | I like my job | .90 | .19 | 11.27 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 | .34 | 9.56 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .49 | 7.89 | .51 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.36 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.25 | .81 |

Chi-Square 33.01, df 43, P-value 0.86460, RMSEA 0.000, SRMR.040, GFI .94, NFI .97, CFI 1.00

1.31 **Table 31 DE and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| C2 | The colour scheme in the store is attractive | .79 | .37 | 9.07 | .63 |
| C3 | The use of colour in the decor scheme adds excitement to this store environment | .78 | .40 | 8.83 | .60 |
| DE2 | This store is decorated in an attractive fashion | .82 | .33 | 9.54 | .67 |
| DE4 | The store understands that the design of its facility is important to me. | .77 | .41 | 8.71 | .59 |
| DE5 | The interior design is visually appealing | .91 | .17 | 11.29 | .83 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .29 | 9.74 | .71 |
| EL2 | I speak highly of the shop in which I work to my friends | .78 | .40 | 8.75 | .60 |
| EL3 | I feel proud to work at this store | .90 | .19 | 10.90 | .81 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .68 | 5.84 | .32 |
| EL5* | I care about the fate of the shop in which I work | .85 | .28 | 9.86 | .72 |

Chi-Square 39.62, df 33, P-value 0.19838, RMSEA 0.046, SRMR.057, GFI .92, NFI .95, CFI .99, * Error covariance set for EL1 and EL5, 1.78

1.32 **Table 32 L and LAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .83 | .31 | 9.21 | .69 |
| L3 | The lighting is excellent at the store. | .86 | .25 | 9.64 | .75 |
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .54 | .71 | 5.34 | .29 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .82 | .33 | 9.02 | .67 |
| LAY5 | The signs in the store provide adequate direction | .82 | .33 | 9.04 | .67 |

Chi-Square 2.45, df 4, P-value 0.65349, RMSEA 0.000, SRMR.019, GFI .99, NFI .99, CFI 1.00

1.33 **Table 33 L and O**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|---|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .86 | .27 | 9.77 | .73 |
| L3 | The lighting is excellent at the store. | .84 | .29 | 9.57 | .71 |
| O2 | The aroma in this store is pleasant. | .87 | .25 | 10.16 | .65 |
| O3 | The aroma in the store is fitting. | .81 | .35 | 9.15 | .75 |
| CLEAN3 | The store maintains clean food service areas | .72 | .49 | 7.74 | .51 |

Chi-Square 2.63, df 4, P-value 0.62098, RMSEA 0.000, SRMR.015, GFI .99, NFI .99, CFI 1.00

1.34 **Table 34- L and QD**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .85 | .28 | 8.57 | .72 |
| L3 | The lighting is excellent at the store. | .85 | .28 | 8.61 | .72 |
| QD1 | The arrangement of this stores interior layout is better. | .86 | .27 | 10.08 | .73 |
| QD2 | This store's aisles are more spacious | .86 | .26 | 10.18 | .74 |
| QD3 | The design of this store's checkout facilities is better | .75 | .44 | 8.28 | .56 |
| QD4 | The design of this store's front is better | .76 | .42 | 8.44 | .58 |

Chi-Square 5.79, df 8, P-value 0.67080, RMSEA 0.000, SRMR.024, GFI .98, NFI .99, CFI 1.00

1.35 **Table 35- L and QE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .86 | .26 | 9.00 | .74 |
| L3 | The lighting is excellent at the store. | .84 | .29 | 8.79 | .71 |
| QE1 | Employees give me personal attention. | .90 | .19 | 11.27 | .81 |
| QE2 | I am treated well by employee | .90 | .19 | 11.32 | .81 |
| QE4 | The store offers high-quality service | .88 | .22 | 10.94 | .78 |
| QE5 | Employees are not too busy to respond to me | .77 | .41 | 8.84 | .59 |
| QE6 | I believe the store offers excellent service. | .88 | .23 | 10.75 | .77 |

Chi-Square 19.76, df 13, P-value 0.10142, RMSEA 0.074, SRMR.034, GFI .94, NFI .98, CFI .99

1.36 **Table 36- L and CS**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .95 (.09) | .09 | 6.22 | .91 |
| L3 | The lighting is excellent at the store. | .76 (.43) | .43 | 5.54 | .57 |
| CS3 | Providing an accurate service for me | .87 (.25) | .25 | 10.55 | .75 |
| CS4 | Willingness to help me | .93 (.13) | .13 | 11.94 | .87 |
| CS5 | Making me feel secure about my transactions. | .89 (.21) | .21 | 10.95 | .79 |
| CS6 | Showing sincere interest in me | .83 (.31) | .31 | 9.88 | .69 |

Chi-Square 13.93, df 8, P-value 0.08359, RMSEA 0.088, SRMR.028, GFI .95, NFI .97, CFI .98

1.37 **Table 37-L and CLA**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .82 | .29 | 8.44 | .71 |
| L3 | The lighting is excellent at the store. | .86 | .27 | 8.57 | .73 |
| CL2 | This store is the first choice for me among the same types of stores | .83 | .32 | 9.26 | .68 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .85 | .28 | 9.55 | .72 |
| CL4 | I will visit this store even if others are cheaper | .76 | .42 | 8.27 | .58 |

Chi-Square 7.48, df 4, P-value 0.11252, RMSEA 0.095, SRMR.030, GFI .97, NFI .97, CFI .99

1.38 **Table 38-L and CLB**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .90 | .08 | 9.76 | .82 |
| L3 | The lighting is excellent at the store. | .80 | .37 | 8.39 | .63 |
| CL5* | Say positive things about the store to other people | .88 | .22 | 10.99 | .78 |
| CL6* | Do more business with the store in the next few months | .87 | .25 | 10.70 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .06 | 13.01 | .94 |
| CL8 | Encourage friends to do business with the store | .95 | .10 | 12.51 | .90 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .42 | 8.77 | .58 |

Chi-Square 19.36, df 12, P-value 0.08018, RMSEA 0.080

SRMR.049, GFI .95, NFI .98, CFI .99, *Error covariance set for CL5 and CL6, 3.99

1.39 **Table 39 L, EM and ELI***

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .73 | .47 | 4.06 | .53 |
| L3 | The lighting is excellent at the store. | .99 | .03 | 4.39 | .97 |
| EM2 | The music in the store is played at an appropriate volume. | .65 | .58 | 5.68 | .42 |
| EM3 | The music played in the store is appropriate. | .75 | .43 | 6.36 | .57 |
| ELI2 | The lighting creates a comfortable working atmosphere | .93 | .13 | 9.75 | .87 |
| ELI3 | The lighting is excellent at the store. | .85 | .27 | 8.81 | .73 |

Chi-Square 5.64, df 6, P-value 0.46524, RMSEA 0.000, SRMR.036, GFI .98, NFI .97, CFI 1.00, * similarly to ELI , L appeared problematic when examined with employee factors, as such EM was also analysed

1.40 **Table 40 L and EDE***

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .83 | .32 | 3.70 | .68 |
| L3 | The lighting is excellent at the store. | .87 | .24 | 3.75 | .76 |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.14 | .35 |
| EDE3 | The interior décor of this store is attractive. | .82 | .33 | 9.47 | .67 |
| EDE4 | The store understands that the design of its facility is important to me. | .69 | .53 | 7.40 | .47 |
| EDE5 | The interior design is visually appealing | .74 | .46 | 8.17 | .54 |
| EC1 | The colours used create a pleasant atmosphere | .83 | .30 | 9.77 | .70 |
| EC2 | The colour scheme in the store is attractive | .85 | .27 | 10.09 | .73 |

Chi-Square 39.78, df 32, P-value 0.16233, RMSEA 0.050, SRMR.055, GFI .92, NFI .94, NNFI .98, CFI .99,

* similarly to ELI , L appeared problematic when examined with employee factors, as such EM was also analysed

1.41 **L and ELI –See Table 39**

1.42 **Table 42 L and ELAY ***

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .85 | .27 | 4.77 | .73 |
| L3 | The lighting is excellent at the store. | .85 | .29 | 4.75 | .71 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .65 | .57 | 6.63 | .43 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .82 | .32 | 8.75 | .68 |
| ELAY5 | The signs in the store provide adequate direction | .83 | .32 | 8.80 | .68 |

Chi-Square 18.98, df 11, P-value 0.06142, RMSEA 0.087, SRMR.059, GFI .99, NFI .91, CFI .95, *

similarly to ELI, L appeared problematic when examined with employee factors, as such EM was also analysed

1.43 **Table 43 L and EO ***

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|---|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .82 | .33 | 8.53 | .67 |
| L3 | The lighting is excellent at the store. | .88 | .22 | 9.30 | .78 |
| EO1 | The store has a pleasant smell. | .85 | .29 | 9.24 | .71 |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 7.83 | .55 |
| ECLEAN2 | The store has clean aisles and exists | .72 | .49 | 7.48 | .51 |
| ECLEAN3 | The store maintains clean food service areas | .63 | .61 | 6.33 | .39 |

Chi-Square 23.29, df 24, P-value 0.50301, RMSEA 0.000, SRMR.050, GFI .95, NFI .94, CFI 1.00, *

similarly to ELI, L appeared problematic when examined with employee factors, as such M was also analysed

1.44 **Table 44 L and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .81 | .34 | 8.56 | .66 |
| L3 | The lighting is excellent at the store. | .89 | .21 | 9.46 | .79 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.31 | .73 |
| ES3 | I like my job | .90 | .19 | 11.26 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 | .34 | 9.56 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .49 | 7.88 | .51 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.35 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.26 | .81 |

Chi-Square 44.82, df 41, P-value 0.31475, RMSEA 0.031, SRMR.045, GFI .92, NFI .95, CFI 1.00, * similarly to ELI, L appeared problematic when examined with employee factors, as such M was also analysed

1.45 **Table 45-L and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| L2 | The lighting creates a comfortable atmosphere | .85 | .28 | 3.94 | |
| L3 | The lighting is excellent at the store. | .85 | .28 | 3.94 | |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .29 | 9.74 | |
| EL2 | I speak highly of the shop in which I work to my friends | .78 | .40 | 8.78 | |
| EL3 | I feel proud to work at this store | .90 | .19 | 10.91 | |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .68 | 5.82 | |
| EL5* | I care about the fate of the shop in which I work | .85 | .28 | 9.84 | |

Chi-Square 9.49, df 12, P-value 0.66054, RMSEA 0.000, SRMR.042, GFI .97, NFI .98, CFI 1.00, * Error covariance set for EL1 and EL5, 1.82

1.46 **Table 46 LAY and O**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|--|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .58 | .66 | 5.76 | .34 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .78 | .40 | 8.33 | .60 |
| LAY5 | The signs in the store provide adequate direction | .85 | .28 | 9.32 | .72 |
| O2 | The aroma in this store is pleasant. | .80 | .35 | 8.99 | .65 |
| O3 | The aroma in the store is fitting. | .88 | .23 | 10.17 | .77 |
| CLEAN3 | The store maintains clean food service areas | .71 | .50 | 7.57 | .50 |

Chi-Square 13.60, df 8, P-value 0.09277, RMSEA 0.085, SRMR.040, GFI .95, NFI .96, CFI .98

1.47 **Table 47 LAY and QD**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .60 | .63 | 6.04 | .37 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .76 | .42 | 8.07 | .58 |
| LAY5 | The signs in the store provide adequate direction | .84 | .29 | 9.21 | .71 |
| QD1 | The arrangement of this stores interior layout is better. | .85 | .28 | 9.96 | .72 |
| QD2 | This store's aisles are more spacious | .89 | .21 | 10.78 | .79 |
| QD3 | The design of this store's checkout facilities is better | .74 | .45 | 8.16 | .55 |
| QD4 | The design of this store's front is better | .74 | .45 | 8.15 | .55 |

Chi-Square 32.88, df 13, P-value 0.00178, RMSEA 0.126, SRMR.060, GFI .91, NFI .94, CFI .96

1.48 **Table 48 LAY and QE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .52 | .73 | 5.05 | .27 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .76 | .43 | 7.62 | .57 |
| LAY5 | The signs in the store provide adequate direction | .90 | .19 | 9.21 | .81 |
| QE1 | Employees give me personal attention. | .90 | .19 | 11.29 | .81 |
| QE2 | I am treated well by employee | .90 | .18 | 11.34 | .82 |
| QE4 | The store offers high-quality service | .88 | .22 | 10.91 | .78 |
| QE5 | Employees are not too busy to respond to me | .78 | .40 | 8.91 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .24 | 10.68 | .76 |

Chi-Square 27.01, df 19, P-value 0.10450, RMSEA 0.066, SRMR.042, GFI .93, NFI .96, CFI .99

1.49 **Table 49 LAY and CS**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .51 | .74 | 4.94 | .26 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .75 | .43 | 7.30 | .57 |
| LAY4 | The stores layout allows me to move around easily | .91 | .18 | 8.77 | .82 |
| CS3 | Providing an accurate service for me | .87 | .25 | 10.58 | .75 |
| CS4 | Willingness to help me | .93 | .13 | 11.91 | .87 |
| CS5 | Making me feel secure about my transactions. | .89 | .21 | 10.95 | .79 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.90 | .69 |

Chi-Square 18.28, df 13, P-value 0.14729, RMSEA 0.065, SRMR.053, GFI .95, NFI .96, CFI .99

1.50 **Table 50- LAY and CLA**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .52 | .73 | 4.99 | .27 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .82 | .33 | 8.34 | .67 |
| LAY5 | The signs in the store provide adequate direction | .84 | .30 | 8.10 | .70 |
| CL2 | This store is the first choice for me among the same types of stores | .81 | .34 | 8.99 | .66 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .85 | .27 | 9.55 | .73 |
| CL4 | I will visit this store even if others are cheaper | .77 | .41 | 8.33 | .59 |

Chi-Square 6.95, df 8, P-value 0.54258, RMSEA 0.000, SRMR.044, GFI .98, NFI .97, CFI 1.00

1.51 **Table 51- LAY and CLB**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .53 | .72 | 5.06 | .28 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .81 | .35 | 7.99 | .65 |
| LAY5 | The signs in the store provide adequate direction | .85 | .28 | 8.41 | .72 |
| CL5* | Say positive things about the store to other people | .88 | .22 | 10.96 | .78 |
| CL6* | Do more business with the store in the next few months | .87 | .25 | 10.65 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.05 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .10 | 12.50 | .90 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .43 | 8.71 | .57 |

Chi-Square 16.88, df 18, P-value 0.53123, RMSEA 0.000, SRMR.052, GFI .96, NFI .98, CFI 1.00, * Error covariance set for CL5 and CL6, 4.05

1.52 **Table 52 LAY, EM and ELI***

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .54 | .71 | 5.17 | .29 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .78 | .39 | 7.52 | .61 |
| LAY5 | The signs in the store provide adequate direction | .87 | .25 | 8.31 | .75 |
| EM2 | The music in the store is played at an appropriate volume. | .64 | .59 | 5.53 | .41 |
| EM3 | The music played in the store is appropriate. | .76 | .42 | 6.30 | .58 |
| ELI2 | The lighting creates a comfortable working atmosphere | .94 | .11 | 9.66 | .89 |
| ELI3 | The lighting is excellent at the store. | .84 | .29 | 8.55 | .71 |

Chi-Square 10.17, df 11, P-value 0.51514, RMSEA 0.000, SRMR.043, GFI .97, NFI .96, CFI 1.00 *as before with ELI it appears problematic when analysed with Customer factors, as such was also analysed with EM

1.53 **Table 53 LAY and EDE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .52 | .72 | 5.03 | .28 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .76 | .43 | 7.17 | .57 |
| LAY5 | The signs in the store provide adequate direction | .90 | .20 | 8.39 | .80 |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.14 | .35 |
| EDE3 | The interior décor of this store is attractive. | .82 | .32 | 9.54 | .68 |
| EDE4 | The store understands that the design of its facility is important to me. | .68 | .54 | 7.27 | .46 |
| EDE5 | The interior design is visually appealing | .73 | .47 | 8.02 | .53 |
| EC1 | The colours used create a pleasant atmosphere | .84 | .30 | 9.84 | .70 |
| EC2 | The colour scheme in the store is attractive | .85 | .27 | 10.08 | .73 |

Chi-Square 22.39, df 26, P-value 0.66745, RMSEA 0.000, SRMR.045, GFI .95, NFI .96, CFI 1

1.54 **Table 54 LAY and ELI –See Table 52**

1.55 **Table 55 LAY and ELAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .53 | .72 | 5.03 | .28 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .76 | .42 | 7.07 | .58 |
| LAY5 | The signs in the store provide adequate direction | .89 | .20 | 8.18 | .80 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .63 | .61 | 6.29 | .39 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .77 | .40 | 7.82 | .60 |
| ELAY5 | The signs in the store provide adequate direction | .90 | .20 | 9.17 | .80 |

Chi-Square 13.53, df 8, P-value 0.09486, RMSEA 0.085, SRMR.087, GFI .99, NFI .91, CFI .95

1.56 **Table 56 LAY and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|--|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .53 | .72 | 5.03 | .28 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .76 | .42 | 7.15 | .58 |
| LAY5 | The signs in the store provide adequate direction | .89 | .21 | 8.19 | .79 |
| EO1 | The store has a pleasant smell. | .85 | .28 | 9.32 | .72 |
| EO3 | The aroma in the store is fitting. | .75 | .44 | 7.89 | .56 |
| ECLEAN2 | The store has clean aisles and exists | .71 | .50 | 7.39 | .50 |
| ECLEAN3 | The store maintains clean food service areas | .62 | .61 | 6.27 | .39 |

Chi-Square 18.86, df 13, P-value 0.12751, RMSEA 0.069, SRMR.053, GFI .95, NFI .93, NNFI .96, CFI .98

1.57 **Table 57 LAY and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .53 | .72 | 5.06 | .28 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .76 | .42 | 7.20 | .58 |
| LAY5 | The signs in the store provide adequate direction | .89 | .21 | 8.26 | .79 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.31 | .73 |
| ES3 | I like my job | .90 | .19 | 11.29 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 | .34 | 9.55 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .49 | 7.90 | .51 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.36 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.24 | .81 |

Chi-Square 28.83, df 26, P-value 0.58562, RMSEA 0.000, SRMR.034, GFI .95, NFI .97, CFI 1.00

1.58 **Table 58 LAY and ELI**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| LAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .53 | .72 | 5.03 | .28 |
| LAY3 | It is easy to walk around this store and find what you are looking for | .76 | .42 | 7.12 | .58 |
| LAY5 | The signs in the store provide adequate direction | .89 | .21 | 8.17 | .79 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .29 | 9.73 | .71 |
| EL2 | I speak highly of the shop in which I work to my friends | .78 | .40 | 8.75 | .60 |
| EL3 | I feel proud to work at this store | .90 | .19 | 10.90 | .81 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .68 | 5.85 | .32 |
| EL5* | I care about the fate of the shop in which I work | .85 | .28 | 9.86 | .72 |

Chi-Square 13.73, df 18, P-value 0.74627, RMSEA 0.000, SRMR.038, GFI .97, NFI .98, CFI 1.00, * Error covariance set for EL1 and EL5, 1.79

1.59 **Table 59 O and QD**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|---|-----------------------|----------------|---------|----------------|
| O2 | The aroma in this store is pleasant. | .79 | .38 | 8.58 | .62 |
| O3 | The aroma in the store is fitting. | .90 | .19 | 10.19 | .81 |
| CLEAN3 | The store maintains clean food service areas | .69 | .52 | 7.31 | .48 |
| QD1 | The arrangement of this stores interior layout is better. | .85 | .28 | 9.89 | .72 |
| QD2 | This store's aisles are more spacious | .87 | .25 | 10.25 | .75 |
| QD3 | The design of this store's checkout facilities is better | .75 | .44 | 8.21 | .56 |
| QD4 | The design of this store's front is better | .77 | .41 | 8.57 | .59 |

Chi-Square 17.67, df 13, P-value 0.17065, RMSEA 0.061, SRMR.050, GFI .95, NFI .96, CFI .99

1.60 **Table 60 O and QE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|---|-----------------------|----------------|---------|----------------|
| O2 | The aroma in this store is pleasant. | .80 | .36 | 8.75 | .64 |
| O3 | The aroma in the store is fitting. | .84 | .29 | 9.42 | .71 |
| CLEAN3 | The store maintains clean food service areas | .76 | .42 | 8.20 | .58 |
| QE1 | Employees give me personal attention. | .90 | .19 | 11.33 | .81 |
| QE2 | I am treated well by employee | .90 | .19 | 11.27 | .81 |
| QE4 | The store offers high-quality service | .89 | .21 | 11.00 | .79 |
| QE5 | Employees are not too busy to respond to me | .77 | .41 | 8.82 | .59 |
| QE6 | I believe the store offers excellent service. | .87 | .24 | 10.70 | .76 |

Chi-Square 39.44, df 19, P-value 0.00388, RMSEA 0.106, SRMR.064, GFI .91, NFI .95, CFI .97

1.61 **Table 61 O and CS**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|--|-----------------------|----------------|---------|----------------|
| O2 | The aroma in this store is pleasant. | .83 | .32 | 8.96 | .68 |
| O3 | The aroma in the store is fitting. | .85 | .28 | 9.26 | .72 |
| CLEAN3 | The store maintains clean food service areas | .72 | .49 | 7.53 | .51 |
| CS3 | Providing an accurate service for me | .86 | .25 | 10.51 | .75 |
| CS4 | Willingness to help me | .93 | .13 | 11.94 | .87 |
| CS5 | Making me feel secure about my transactions. | .89 | .21 | 10.98 | .79 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.89 | .69 |

Chi-Square 20.86, df 13, P-value 0.07580, RMSEA 0.079, SRMR.063, GFI .94, NFI .96, CFI .98

1.62 **Table 62 O and CLA**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|---|-----------------------|----------------|---------|----------------|
| O2 | The aroma in this store is pleasant. | .81 | .34 | 8.86 | .66 |
| O3 | The aroma in the store is fitting. | .86 | .26 | 9.57 | .74 |
| CLEAN3 | The store maintains clean food service areas | .73 | .47 | 7.71 | .53 |
| CL2 | This store is the first choice for me among the same types of stores | .82 | .32 | 9.17 | .68 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .84 | .30 | 9.34 | .70 |
| CL4 | I will visit this store even if others are cheaper | .78 | .40 | 8.48 | .60 |

Chi-Square 3.86, df 8, P-value 0.86082, RMSEA 0.000, SRMR.032, GFI .99, NFI .99, CFI 1.00

1.63 **Table 63 O and CLB**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|--|-----------------------|----------------|---------|----------------|
| O2 | The aroma in this store is pleasant. | .81 | .34 | 8.98 | .66 |
| O3 | The aroma in the store is fitting. | .85 | .28 | 9.46 | .72 |
| CLEAN3 | The store maintains clean food service areas | .74 | .46 | 7.87 | .54 |
| CL5* | Say positive things about the store to other people | .88 | .22 | 10.96 | .78 |
| CL6* | Do more business with the store in the next few months | .87 | .25 | 10.66 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.06 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .10 | 12.49 | .90 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .42 | 8.74 | .58 |

Chi-Square 19.43, df 18, P-value 0.36584, RMSEA 0.029, SRMR.058, GFI .95, NFI .98, CFI 1,* error covariance set for CLA5 and CLA6, 4.05

1.64 **Table 64 O, EM and ELI***

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|--|-----------------------|----------------|---------|----------------|
| O2 | The aroma in this store is pleasant. | .54 | .71 | 5.17 | .63 |
| O3 | The aroma in the store is fitting. | .78 | .39 | 7.52 | .80 |
| CLEAN3 | The store maintains clean food service areas | .87 | .25 | 8.31 | .49 |
| EM2 | The music in the store is played at an appropriate volume. | .64 | .59 | 5.53 | .42 |
| EM3 | The music played in the store is appropriate. | .76 | .42 | 6.30 | .57 |
| ELI2 | The lighting creates a comfortable working atmosphere | .94 | .12 | 9.57 | .88 |
| ELI3 | The lighting is excellent at the store. | .85 | .28 | 8.62 | .72 |

Chi-Square 16.96, df 11, P-value 0.10907, RMSEA 0.075, SRMR.054, GFI .95, NFI .94, CFI .98, * as noted ELI has appeared problematic throughout the analyses and was examined with EM

1.65 **Table 65 O and EDE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|---|-----------------------|----------------|---------|----------------|
| O2 | The aroma in this store is pleasant. | .80 | .36 | 8.54 | .64 |
| O3 | The aroma in the store is fitting. | .88 | .22 | 9.66 | .78 |
| CLEAN3 | The store maintains clean food service areas | .71 | .50 | 7.41 | .50 |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.14 | .35 |
| EDE3 | The interior décor of this store is attractive. | .82 | .33 | 9.53 | .67 |
| EDE4 | The store understands that the design of its facility is important to me. | .68 | .54 | 7.25 | .46 |
| EDE5 | The interior design is visually appealing | .73 | .47 | 7.99 | .53 |
| EC1 | The colours used create a pleasant atmosphere | .84 | .29 | 9.86 | .71 |
| EC2 | The colour scheme in the store is attractive | .85 | .27 | 10.10 | .73 |

Chi-Square 31.89, df 26, P-value 0.19669, RMSEA 0.049,SRMR.061, GFI .93, NFI .94, CFI .98

1.66 **Table 66 O and ELI –See Table 64**

1.67 **Table 67 O and ELAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|--|-----------------------|----------------|---------|----------------|
| O2 | The aroma in this store is pleasant. | .80 | .36 | 8.53 | .64 |
| O3 | The aroma in the store is fitting. | .88 | .22 | 9.67 | .78 |
| CLEAN3 | The store maintains clean food service areas | .71 | .50 | 7.42 | .50 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .63 | .61 | 6.28 | .39 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .77 | .41 | 7.77 | .59 |
| ELAY5 | The signs in the store provide adequate direction | .90 | .19 | 9.24 | .81 |

Chi-Square 9.71, df 8, P-value 0.28569, RMSEA 0.047, SRMR.065, GFI .97, NFI .96, CFI .99

1.68 **Table 68 - O and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|--|-----------------------|----------------|---------|----------------|
| O2 | The aroma in this store is pleasant. | .80 | .36 | 8.58 | .64 |
| O3 | The aroma in the store is fitting. | .88 | .23 | 9.61 | .77 |
| CLEAN3 | The store maintains clean food service areas | .71 | .50 | 7.43 | .50 |
| EO1 | The store has a pleasant smell. | .85 | .28 | 9.32 | .72 |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 7.85 | .55 |
| ECLEAN2 | The store has clean aisles and exists | .71 | .49 | 7.41 | .51 |
| ECLEAN3 | The store maintains clean food service areas | .62 | .61 | 6.29 | .39 |

Chi-Square 18.86, df 13, P-value 0.12751, RMSEA 0.069, SRMR.048, GFI .97, NFI .96, CFI 1.00

1.69 **Table 69 O and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|---|-----------------------|----------------|---------|----------------|
| O2 | The aroma in this store is pleasant. | .81 | .35 | 8.63 | .65 |
| O3 | The aroma in the store is fitting. | .88 | .23 | 9.55 | .77 |
| CLEAN3 | The store maintains clean food service areas | .71 | .50 | 7.43 | .50 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.31 | .73 |
| ES3 | I like my job | .90 | .19 | 11.25 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 | .34 | 9.56 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .49 | 7.89 | .51 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.36 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.27 | .81 |

Chi-Square 20.78, df 26, P-value 0.75328, RMSEA 0.000, SRMR.033, GFI .95, NFI .98, CFI 1.00

1.70 **Table 70 O and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|--------|---|-----------------------|----------------|---------|----------------|
| O2 | The aroma in this store is pleasant. | .81 | .35 | 9.63 | .65 |
| O3 | The aroma in the store is fitting. | .88 | .23 | 9.56 | .77 |
| CLEAN3 | The store maintains clean food service areas | .71 | .50 | 7.43 | .50 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .29 | 9.72 | .71 |
| EL2 | I speak highly of the shop in which I work to my friends | .78 | .40 | 8.75 | .60 |
| EL3 | I feel proud to work at this store | .90 | .19 | 10.10 | .81 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .67 | 5.85 | .33 |
| EL5* | I care about the fate of the shop in which I work | .85 | .28 | 9.86 | .72 |

Chi-Square 11.31, df 18, P-value 0.88081, RMSEA 0.000, SRMR.034, GFI .97, NFI .98, CFI 1.00, * Error covariance set for EL1 and EL5, 1.81

1.71 **Table 71 QD and QE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QD1 | The arrangement of this stores interior layout is better. | .87 | .25 | 10.22 | .75 |
| QD2 | This store's aisles are more spacious | .85 | .28 | 9.89 | .72 |
| QD3 | The design of this store's checkout facilities is better | .75 | .44 | 8.22 | .56 |
| QD4 | The design of this store's front is better | .77 | .41 | 8.53 | .59 |
| QE1 | Employees give me personal attention. | .90 | .19 | 11.28 | .81 |
| QE2 | I am treated well by employee | .91 | .18 | 11.39 | .82 |
| QE4 | The store offers high-quality service | .88 | .22 | 10.87 | .78 |
| QE5 | Employees are not too busy to respond to me | .77 | .40 | 8.90 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .24 | 10.68 | .76 |

Chi-Square 47.53, df 26, P-value 0.00613, RMSEA 0.093, SRMR.078, GFI .90, NFI .95, CFI .97

1.72 **Table 72 QD and CS**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QD1 | The arrangement of this stores interior layout is better. | .86 | .27 | 10.55 | .73 |
| QD2 | This store's aisles are more spacious | .87 | .24 | 11.94 | .76 |
| QD3 | The design of this store's checkout facilities is better | .75 | .44 | 10.96 | .56 |
| QD4 | The design of this store's front is better | .75 | .44 | 9.88 | .56 |
| CS3 | Providing an accurate service for me | .87 | .25 | 10.01 | .75 |
| CS4 | Willingness to help me | .93 | .13 | 10.29 | .87 |
| CS5 | Making me feel secure about my transactions. | .89 | .21 | 8.22 | .79 |
| CS6 | Showing sincere interest in me | .83 | .31 | 8.28 | .69 |

Chi-Square 30.31, df 19, P-value 0.04794, RMSEA 0.079, SRMR.038, GFI .93, NFI .95, CFI .98

1.73 **Table 73 QD and CLA**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QD1 | The arrangement of this stores interior layout is better. | .86 | .26 | 10.12 | .74 |
| QD2 | This store's aisles are more spacious | .84 | .29 | 9.80 | .71 |
| QD3 | The design of this store's checkout facilities is better | .75 | .43 | 8.30 | .57 |
| QD4 | The design of this store's front is better | .77 | .40 | 8.65 | .60 |
| CL2 | This store is the first choice for me among the same types of stores | .80 | .36 | 8.80 | .64 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .87 | .25 | 9.78 | .75 |
| CL4 | I will visit this store even if others are cheaper | .77 | .41 | 8.31 | .59 |

Chi-Square 41.69, df 13, P-value 0.00007, RMSEA 0.152, SRMR.085, GFI .89, NFI .91, CFI .93

1.74 **Table 74 QD and CLB**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QD1 | The arrangement of this stores interior layout is better. | .87 | .25 | 10.19 | .75 |
| QD2 | This store's aisles are more spacious | .85 | .28 | 9.83 | .71 |
| QD3 | The design of this store's checkout facilities is better | .75 | .44 | 8.23 | .56 |
| QD4 | The design of this store's front is better | .77 | .41 | 8.61 | .59 |
| CL5* | Say positive things about the store to other people | .88 | .22 | 10.95 | .78 |
| CL6* | Do more business with the store in the next few months | .87 | .25 | 10.62 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.09 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .10 | 12.49 | .90 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .42 | 8.69 | .57 |

Chi-Square 52.69, df 25, P-value 0.00098, RMSEA 0.107, SRMR.092, GFI .89, NFI .94, CFI .97, * error covariance set for CL5 and CL6, 4.09

1.75 **Table 75 QD, EM and ELI***

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| QD1 | The arrangement of this stores interior layout is better. | .84 | .29 | 9.82 | .71 |
| QD2 | This store's aisles are more spacious | .88 | .23 | 10.41 | .77 |
| QD3 | The design of this store's checkout facilities is better | .76 | .43 | 8.36 | .57 |
| QD4 | The design of this store's front is better | .75 | .44 | 8.24 | .56 |
| EM2 | The music in the store is played at an appropriate volume. | .65 | .58 | 5.57 | .42 |
| EM3 | The music played in the store is appropriate. | .76 | .43 | 6.23 | .57 |
| ELI2 | The lighting creates a comfortable working atmosphere | .94 | .12 | 9.79 | .88 |
| ELI3 | The lighting is excellent at the store. | .85 | .28 | 8.75 | .72 |

Chi-Square 19.24, df 17, P-value 0.31476, RMSEA 0.037, SRMR.052, GFI .95, NFI .95, CFI .99, * as noted ELI has appeared problematic throughout the analyses and was examined with EM

1.76 **Table 76 QD and EDE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QD1 | The arrangement of this stores interior layout is better. | .85 | .28 | 10.22 | .72 |
| QD2 | This store's aisles are more spacious | .87 | .24 | 9.89 | .76 |
| QD3 | The design of this store's checkout facilities is better | .76 | .43 | 8.22 | .57 |
| QD4 | The design of this store's front is better | .75 | .44 | 8.53 | .56 |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.14 | .35 |
| EDE3 | The interior décor of this store is attractive. | .82 | .32 | 9.53 | .68 |
| EDE4 | The store understands that the design of its facility is important to me. | .68 | .54 | 7.25 | .46 |
| EDE5 | The interior design is visually appealing | .73 | .47 | 7.99 | .53 |
| EC1 | The colours used create a pleasant atmosphere | .84 | .29 | 9.86 | .71 |
| EC2 | The colour scheme in the store is attractive | .85 | .28 | 10.10 | .72 |

Chi-Square 38.87, df 34, P-value 0.25978, RMSEA 0.039, SRMR.070, GFI .93, NFI .95, CFI .99

1.77 **Table 77 QD and ELI –See Table 75**

1.78 **Table 78 QD and ELAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| QD1 | The arrangement of this stores interior layout is better. | .85 | .28 | 10.22 | .72 |
| QD2 | This store's aisles are more spacious | .87 | .24 | 9.89 | .76 |
| QD3 | The design of this store's checkout facilities is better | .75 | .43 | 8.22 | .57 |
| QD4 | The design of this store's front is better | .75 | .44 | 8.53 | .56 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .64 | .59 | 6.28 | .41 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .78 | .40 | 7.77 | .60 |
| ELAY5 | The signs in the store provide adequate direction | .89 | .21 | 9.24 | .79 |

Chi-Square 17.08, df 13, P-value 0.19575, RMSEA 0.057, SRMR.061, GFI .95, NFI .96, CFI .99

1.79 **Table 79 QD and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|---|-----------------------|----------------|---------|----------------|
| QD1 | The arrangement of this stores interior layout is better. | .85 | .28 | 9.92 | .72 |
| QD2 | This store's aisles are more spacious | .87 | .24 | 10.29 | .76 |
| QD3 | The design of this store's checkout facilities is better | .75 | .43 | 8.33 | .57 |
| QD4 | The design of this store's front is better | .75 | .44 | 8.26 | .56 |
| EO1 | The store has a pleasant smell. | .85 | .28 | 9.32 | .72 |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 7.86 | .55 |
| ECLEAN2 | The store has clean aisles and exists | .71 | .49 | 7.44 | .51 |
| ECLEAN3 | The store maintains clean food service areas | .62 | .61 | 6.26 | .39 |

Chi-Square 18.08, df 19, P-value 0.51705, RMSEA 0.000, SRMR.056, GFI .96, NFI .96, CFI 1.00

1.80 **Table 80 QD and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QD1 | The arrangement of this stores interior layout is better. | .85 | .27 | 9.97 | .73 |
| QD2 | This store's aisles are more spacious | .87 | .24 | 10.33 | .76 |
| QD3 | The design of this store's checkout facilities is better | .75 | .44 | 8.23 | .56 |
| QD4 | The design of this store's front is better | .75 | .44 | 8.26 | .56 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.31 | .73 |
| ES3 | I like my job | .90 | .19 | 11.25 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 | .34 | 9.55 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .49 | 7.89 | .51 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.36 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.27 | .81 |

Chi-Square 28.79, df 34, P-value 0.72087, RMSEA 0.000, SRMR.055, GFI .94, NFI .97, CFI 1.00

1.81 **Table 81 QD and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QD1 | The arrangement of this stores interior layout is better. | .87 | .25 | 9.94 | .75 |
| QD2 | This store's aisles are more spacious | .85 | .28 | 10.31 | .72 |
| QD3 | The design of this store's checkout facilities is better | .75 | .44 | 8.26 | .56 |
| QD4 | The design of this store's front is better | .77 | .41 | 8.27 | .59 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .29 | 9.72 | .71 |
| EL2 | I speak highly of the shop in which I work to my friends | .78 | .40 | 8.75 | .60 |
| EL3 | I feel proud to work at this store | .90 | .19 | 10.10 | .81 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .67 | 5.85 | .33 |
| EL5* | I care about the fate of the shop in which I work | .85 | .28 | 9.86 | .72 |

Chi-Square 11.31, df 18, P-value 0.88081, RMSEA 0.000, SRMR.050, GFI .97, NFI .98, CFI 1.00, * Error covariance set for EL1 and EL5, 1.81

1.82 **Table 82 QE and CS**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QE1 | Employees give me personal attention. | .91 | .18 | 11.42 | .82 |
| QE2 | I am treated well by employee | .91 | .17 | 11.52 | .83 |
| QE4 | The store offers high-quality service | .87 | .24 | 10.67 | .76 |
| QE5 | Employees are not too busy to respond to me | .78 | .40 | 8.95 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .25 | 10.56 | .75 |
| CS3 | Providing an accurate service for me | .87 | .25 | 10.56 | .75 |
| CS4 | Willingness to help me | .93 | .14 | 11.86 | .86 |
| CS5 | Making me feel secure about my transactions. | .89 | .21 | 10.94 | .79 |
| CS6 | Showing sincere interest in me | .84 | .30 | 10.03 | .70 |

Chi-Square 25.76, df 26, P-value 0.47644, RMSEA 0.000, SRMR.039, GFI .94, NFI .98, CFI 1.00

1.83 **Table 83 QE and CLA**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QE1 | Employees give me personal attention. | .90 | .18 | 11.37 | .82 |
| QE2 | I am treated well by employee | .90 | .20 | 11.17 | .80 |
| QE4 | The store offers high-quality service | .88 | .23 | 10.84 | .77 |
| QE5 | Employees are not too busy to respond to me | .77 | .41 | 8.83 | .59 |
| QE6 | I believe the store offers excellent service. | .88 | .22 | 10.91 | .78 |
| CL2 | This store is the first choice for me among the same types of stores | .83 | .31 | 9.41 | .69 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .84 | .30 | 9.49 | .70 |
| CL4 | I will visit this store even if others are cheaper | .77 | .40 | 8.49 | .60 |

Chi-Square 34.31, df 19, P-value 0.01691, RMSEA 0.092, SRMR.041, GFI .92, NFI .97, CFI .99

1.84 **Table 84 QE and CLB**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| QE1 | Employees give me personal attention. | .90 | .18 | 11.38 | .82 |
| QE2 | I am treated well by employee | .90 | .19 | 11.31 | .81 |
| QE4 | The store offers high-quality service | .88 | .23 | 10.85 | .77 |
| QE5 | Employees are not too busy to respond to me | .77 | .40 | 8.90 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .24 | 10.75 | .76 |
| CL5* | Say positive things about the store to other people | .88 | .22 | 10.96 | .78 |
| CL6* | Do more business with the store in the next few months | .87 | .25 | 10.69 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .06 | 13.02 | .94 |
| CL8 | Encourage friends to do business with the store | .95 | .09 | 12.52 | .91 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .42 | 8.79 | .58 |

Chi-Square 33.39, df 33, P-value 0.44817, RMSEA 0.011, SRMR.041, GFI .93, NFI .98, CFI 1.00, * Error covariance set for CL5 and CL6, 4.04

1.85 **Table 85 QE, EM and ELI***

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| QE1 | Employees give me personal attention. | .90 | .18 | 11.36 | .82 |
| QE2 | I am treated well by employee | .91 | .17 | 11.47 | .83 |
| QE4 | The store offers high-quality service | .88 | .23 | 10.76 | .77 |
| QE5 | Employees are not too busy to respond to me | .77 | .40 | 8.90 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .25 | 10.61 | .75 |
| EM2 | The music in the store is played at an appropriate volume. | .68 | .54 | 5.70 | .46 |
| EM3 | The music played in the store is appropriate. | .72 | .48 | 6.00 | .52 |
| ELI2 | The lighting creates a comfortable working atmosphere | .94 | .12 | 9.62 | .88 |
| ELI3 | The lighting is excellent at the store. | .85 | .28 | 8.65 | .72 |

Chi-Square 23.44, df 24, P-value 0.49404, RMSEA 0.000, SRMR.030, GFI .95, NFI .97, CFI 1, * ELI was analysed with the Factors as well, as ELI was problematic with the customer factor.

1.86 **Table 86 QE and EDE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QE1 | Employees give me personal attention. | .90 | .18 | 11.36 | .82 |
| QE2 | I am treated well by employee | .91 | .17 | 11.47 | .83 |
| QE4 | The store offers high-quality service | .88 | .23 | 10.76 | .77 |
| QE5 | Employees are not too busy to respond to me | .77 | .40 | 8.90 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .25 | 10.61 | .75 |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.11 | .35 |
| EDE3 | The interior décor of this store is attractive. | .82 | .33 | 9.50 | .67 |
| EDE4 | The store understands that the design of its facility is important to me. | .68 | .54 | 7.28 | .46 |
| EDE5 | The interior design is visually appealing | .73 | .47 | 7.99 | .53 |
| EC1 | The colours used create a pleasant atmosphere | .84 | .29 | 9.89 | .71 |
| EC2 | The colour scheme in the store is attractive | .85 | .27 | 10.10 | .73 |

Chi-Square 50.81, df 43, P-value 0.19286, RMSEA 0.044, SRMR.046, GFI .91, NFI .95, CFI .99

1.87 **Table 87 QE and ELI- See Table 85**

1.88 **Table 88 QE and ELAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| QE1 | Employees give me personal attention. | .90 | .18 | 11.36 | .82 |
| QE2 | I am treated well by employee | .91 | .17 | 11.47 | .83 |
| QE4 | The store offers high-quality service | .88 | .23 | 10.76 | .77 |
| QE5 | Employees are not too busy to respond to me | .77 | .40 | 8.90 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .22 | 10.61 | .75 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .63 | .61 | 6.27 | .39 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .89 | .20 | 9.15 | .80 |
| ELAY5 | The signs in the store provide adequate direction | .78 | .40 | 7.85 | .60 |

Chi-Square 17.56, df 19, P-value 0.55217, RMSEA 0.000, SRMR .046, GFI .96, NFI .97, CFI 1

1.89 **Table 89 QE and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|---|-----------------------|----------------|---------|----------------|
| QE1 | Employees give me personal attention. | .90 | .18 | 11.34 | .82 |
| QE2 | I am treated well by employee | .91 | .17 | 11.48 | .83 |
| QE4 | The store offers high-quality service | .88 | .23 | 10.77 | .77 |
| QE5 | Employees are not too busy to respond to me | .77 | .40 | 8.90 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .25 | 10.61 | .75 |
| EO1 | The store has a pleasant smell. | .84 | .29 | 9.22 | .71 |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 7.85 | .55 |
| ECLEAN2 | The store has clean aisles and exists | .72 | .49 | 7.48 | .51 |
| ECLEAN3 | The store maintains clean food service areas | .63 | .61 | 6.33 | .39 |

Chi-Square 24.21, df 26, P-value 0.56374, RMSEA 0.000, SRMR .046, GFI .95, NFI .96, CFI 1

1.90 **Table 90 QE and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QE1 | Employees give me personal attention. | .90 | .18 | 11.34 | .82 |
| QE2 | I am treated well by employee | .91 | .17 | 11.48 | .83 |
| QE4 | The store offers high-quality service | .88 | .23 | 10.77 | .77 |
| QE5 | Employees are not too busy to respond to me | .77 | .40 | 8.90 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .25 | 10.60 | .75 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.31 | .73 |
| ES3 | I like my job | .90 | .19 | 11.26 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 | .34 | 9.57 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .49 | 7.89 | .51 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.36 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.25 | .81 |

Chi-Square 44.36, df 43, P-value 0.41417, RMSEA 0.018, SRMR.036, GFI .92, NFI .96, CFI 1.00

1.91 **Table 91 QE and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| QE1 | Employees give me personal attention. | .90 | .18 | 11.32 | .82 |
| QE2 | I am treated well by employee | .91 | .17 | 11.50 | .83 |
| QE4 | The store offers high-quality service | .88 | .23 | 10.77 | .77 |
| QE5 | Employees are not too busy to respond to me | .77 | .40 | 8.91 | .60 |
| QE6 | I believe the store offers excellent service. | .87 | .25 | 10.61 | .75 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .30 | 9.69 | .70 |
| EL2 | I speak highly of the shop in which I work to my friends | .77 | .40 | 8.73 | .60 |
| EL3 | I feel proud to work at this store | .90 | .18 | 10.70 | .82 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .68 | 5.83 | .32 |
| EL5* | I care about the fate of the shop in which I work | .85 | .28 | 9.84 | .72 |

Chi-Square 38.08, df 33, P-value 0.24911, RMSEA 0.040, SRMR.085, GFI .92, NFI .95, CFI .99, * Error covariance set for EL1 and EL5, 1.87

1.92 **Table 92 CS and CLA**

| Label | Items | Standardised Loading | Error Variance | t-value | R ² |
|-------|---|----------------------|----------------|---------|----------------|
| CS3 | Providing an accurate service for me | .87 | .25 | 10.56 | .75 |
| CS4 | Willingness to help me | .93 | .13 | 11.93 | .87 |
| CS5 | Making me feel secure about my transactions. | .89 | .22 | 10.92 | .78 |
| CS6 | Showing sincere interest in me | .83 | .30 | 9.92 | .70 |
| CL2 | This store is the first choice for me among the same types of stores | .81 | .34 | 8.89 | .66 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .85 | .28 | 9.46 | .72 |
| CL4 | I will visit this store even if others are cheaper | .78 | .40 | 8.42 | .60 |

Chi-Square 14.01, df 13, P-value 0.37341, RMSEA 0.028, SRMR .035, GFI .96, NFI .97, CFI 1.00

1.93 **Table 93 CS and CLB**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| CS3 | Providing an accurate service for me | .87 | .25 | 10.54 | .75 |
| CS4 | Willingness to help me | .93 | .13 | 11.95 | .87 |
| CS5 | Making me feel secure about my transactions. | .88 | .22 | 10.90 | .78 |
| CS6 | Showing sincere interest in me | .84 | .30 | 9.95 | .70 |
| CL5 | Say positive things about the store to other people | .88 | .23 | 10.94 | .77 |
| CL6 | Do more business with the store in the next few months | .87 | .25 | 10.64 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.05 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .09 | 12.52 | .91 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .43 | 8.68 | .57 |

Chi-Square 23.06, df 25, P-value 0.57416, RMSEA 0.000, SRMR.044, GFI .95, NFI .98, CFI 1.00, * Error covariance set for CL5 and CL6, 4.07

1.94 **Table 94 CS and EM**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| CS3 | Providing an accurate service for me | .87 | .25 | 10.54 | .75 |
| CS4 | Willingness to help me | .94 | .13 | 11.95 | .87 |
| CS5 | Making me feel secure about my transactions. | .89 | .22 | 10.93 | .78 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.90 | .69 |
| EM2 | The music in the store is played at an appropriate volume. | .72 | .48 | 2.73 | .52 |
| EM3 | The music played in the store is appropriate. | .68 | .54 | 2.70 | .46 |

Chi-Square 8.16, df 8, P-value 0.41819, RMSEA 0.014, SRMR.027, GFI .97, NFI .98, CFI 1.00

1.95 **Table 95 CS and EDE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CS3 | Providing an accurate service for me | .87 | .25 | 10.53 | .75 |
| CS4 | Willingness to help me | .94 | .12 | 11.99 | .88 |
| CS5 | Making me feel secure about my transactions. | .89 | .22 | 10.92 | .78 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.88 | .69 |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.11 | .35 |
| EDE3 | The interior décor of this store is attractive. | .82 | .33 | 9.50 | .67 |
| EDE4 | The store understands that the design of its facility is important to me. | .68 | .54 | 7.27 | .46 |
| EDE5 | The interior design is visually appealing | .73 | .47 | 7.98 | .53 |
| EC1 | The colours used create a pleasant atmosphere | .84 | .29 | 9.90 | .71 |
| EC2 | The colour scheme in the store is attractive | .85 | .27 | 10.10 | .73 |

Chi-Square 26.50, df 34, P-value 0.81684, RMSEA 0.000, SRMR.040, GFI .95, NFI .96, CFI 1

1.96 **Table 96 CS and ELI**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CS3 | Providing an accurate service for me | .87 | .25 | 10.53 | .75 |
| CS4 | Willingness to help me | .94 | .13 | 11.98 | .87 |
| CS5 | Making me feel secure about my transactions. | .89 | .21 | 10.93 | .79 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.88 | .69 |
| ELI2 | The lighting creates a comfortable working atmosphere | .97 | .07 | 4.46 | .93 |
| ELI3 | The lighting is excellent at the store. | .82 | .32 | 4.28 | .68 |

Chi-Square 4.04, df 8, P-value 0.85308, RMSEA 0.000, SRMR.017, GFI .99, NFI .99, CFI 1.00

1.97 **Table 97 CS and ELAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| CS3 | Providing an accurate service for me | .87 | .25 | 10.52 | .75 |
| CS4 | Willingness to help me | .94 | .12 | 11.99 | .88 |
| CS5 | Making me feel secure about my transactions. | .89 | .21 | 10.94 | .79 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.88 | .69 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .64 | .60 | 6.39 | .40 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .80 | .36 | 8.24 | .64 |
| ELAY5 | The signs in the store provide adequate direction | .86 | .25 | 8.98 | .75 |

Chi-Square 18.12, df 13, P-value 0.15291, RMSEA 0.064, SRMR.048, GFI .95, NFI .96, , CFI .99

1.98 **Table 98 CS and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|--|-----------------------|----------------|---------|----------------|
| CS3 | Providing an accurate service for me | .87 | .25 | 10.53 | .75 |
| CS4 | Willingness to help me | .94 | .12 | 12.00 | .88 |
| CS5 | Making me feel secure about my transactions. | .89 | .22 | 10.93 | .78 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.86 | .69 |
| EO1 | The store has a pleasant smell. | .84 | .29 | 9.23 | .71 |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 7.82 | .55 |
| ECLEAN2 | The store has clean aisles and exists | .72 | .48 | 7.53 | .52 |
| ECLEAN3 | The store maintains clean food service areas | .63 | .61 | 6.33 | .39 |

Chi-Square 14.46, df 19, P-value 0.75644, RMSEA 0.000, SRMR.043, GFI .96, NFI .97, CFI 1.00

1.99 **Table 99 CS and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CS3 | Providing an accurate service for me | .86 | .25 | 10.52 | .75 |
| CS4 | Willingness to help me | .94 | .12 | 12.00 | .88 |
| CS5 | Making me feel secure about my transactions. | .89 | .21 | 10.95 | .79 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.86 | .69 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.28 | .73 |
| ES3 | I like my job | .90 | .18 | 11.31 | .82 |
| ES4 | There are no fundamental things I dislike about my Job | .82 | .33 | 9.60 | .67 |
| ES5 | I like my job more than many employees of other companies | .71 | .50 | 7.87 | .50 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.37 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.21 | .81 |

Chi-Square 32.70, df 34, P-value 0.53105, RMSEA 0.000, SRMR.038, GFI .94, NFI .97, CFI 1.00

1.100 **Table 100 CS and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CS3 | Providing an accurate service for me | .87 | .25 | 10.52 | .75 |
| CS4 | Willingness to help me | .94 | .12 | 12.01 | .88 |
| CS5 | Making me feel secure about my transactions. | .89 | .21 | 10.94 | .79 |
| CS6 | Showing sincere interest in me | .83 | .31 | 9.84 | .69 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .30 | 9.65 | .70 |
| EL2 | I speak highly of the shop in which I work to my friends | .77 | .40 | 8.73 | .60 |
| EL3 | I feel proud to work at this store | .91 | .18 | 11.01 | .82 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .67 | 5.90 | .33 |
| EL5* | I care about the fate of the shop in which I work | .84 | .29 | 9.80 | .71 |

Chi-Square 17.96, df 25, P-value 0.84418, RMSEA 0.000, SRMR.044, GFI .96, NFI .98, CFI 1.00, * Error covariance set for EL1 and EL5, 1.97

1.101 **Table 101 CLA and CLB**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CL2 | This store is the first choice for me among the same types of stores | .82 | .33 | 9.42 | .67 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .82 | .33 | 9.42 | .67 |
| CL4 | I will visit this store even if others are cheaper | .80 | .36 | 9.06 | .64 |
| CL5* | Say positive things about the store to other people | .89 | .22 | 11.04 | .78 |
| CL6* | Do more business with the store in the next few months | .87 | .25 | 10.64 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.06 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .10 | 12.48 | .90 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .42 | 8.77 | .58 |

Chi-Square 29.82, df 18, P-value 0.03928, RMSEA 0.083, SRMR.033, GFI .93, NFI .98, CFI .99, * Error covariance set for CL5 and CL6, 4.04

1.102 **Table 102 CLA , EM and ELI***

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CL2 | This store is the first choice for me among the same types of stores | .82 | .33 | 8.95 | .67 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .84 | .29 | 9.32 | .71 |
| CL4 | I will visit this store even if others are cheaper | .78 | .40 | 8.42 | .60 |
| EM2 | The music in the store is played at an appropriate volume. | .68 | .54 | 5.70 | .46 |
| EM3 | The music played in the store is appropriate. | .72 | .48 | 5.99 | .52 |
| ELI2 | The lighting creates a comfortable working atmosphere | .93 | .13 | 9.54 | .87 |
| ELI3 | The lighting is excellent at the store. | .85 | .27 | 8.67 | .73 |

Chi-Square 4.94, df 11, P-value 0.93417, RMSEA 0.000, SRMR.029, GFI .99, NFI .98, CFI 1.00, * As noted ELI has been problematic and was analysed with EM

1.103 **Table 103 CLA and EDE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CL2 | This store is the first choice for me among the same types of stores | .82 | .32 | 9.05 | .68 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .84 | .30 | 9.25 | .70 |
| CL4 | I will visit this store even if others are cheaper | .78 | .40 | 8.41 | .60 |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.14 | .35 |
| EDE3 | The interior décor of this store is attractive. | .82 | .33 | 9.49 | .67 |
| EDE4 | The store understands that the design of its facility is important to me. | .68 | .54 | 7.25 | .46 |
| EDE5 | The interior design is visually appealing | .73 | .47 | 7.99 | .53 |
| EC1 | The colours used create a pleasant atmosphere | .84 | .29 | 9.87 | .71 |
| EC2 | The colour scheme in the store is attractive | .85 | .27 | 10.13 | .73 |

Chi-Square 24.30, df 26, P-value 0.55875, RMSEA 0.000, SRMR.068, GFI .95, NFI .96, CFI 1.00

1.104 **Table 104 CLA and ELI- See Table 102**

1.105 **Table 105 CLA and ELAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CL2 | This store is the first choice for me among the same types of stores | .82 | .33 | 8.99 | .67 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .84 | .29 | 9.30 | .71 |
| CL4 | I will visit this store even if others are cheaper | .78 | .40 | 8.42 | .60 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .62 | .61 | 6.23 | .39 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .77 | .41 | 7.79 | .59 |
| ELAY5 | The signs in the store provide adequate direction | .90 | .19 | 9.21 | .81 |

Chi-Square 7.39, df 8, P-value 0.49528, RMSEA 0.000, SRMR.038, GFI .97, NFI .97, CFI 1.00

1.106 **Table 106 CLA and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|---|-----------------------|----------------|---------|----------------|
| CL2 | This store is the first choice for me among the same types of stores | .82 | .33 | 8.97 | .67 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .84 | .29 | 9.31 | .71 |
| CL4 | I will visit this store even if others are cheaper | .78 | .40 | 8.42 | .60 |
| EO1 | The store has a pleasant smell. | .85 | .27 | 9.36 | .73 |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 7.83 | .55 |
| ECLEAN2 | The store has clean aisles and exists | .71 | .50 | 7.39 | .50 |
| ECLEAN3 | The store maintains clean food service areas | .62 | .61 | 6.28 | .39 |

Chi-Square 21.66, df 13, P-value 0.06094, RMSEA 0.083, SRMR.061, GFI .94, NFI .93, CFI .97

1.107 **Table 107 CLA and ES**

| Label | Items | Standardised Loadings (error) | Error Variance | t-value | R ² |
|-------|---|--------------------------------|----------------|---------|----------------|
| CL2 | This store is the first choice for me among the same types of stores | .82 | .33 | 8.93 | .66 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .84 | .29 | 9.33 | .71 |
| CL4 | I will visit this store even if others are cheaper | .78 | .39 | 8.44 | .61 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.31 | .73 |
| ES3 | I like my job | .90 | .17 | 11.25 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 | .34 | 9.56 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .49 | 7.89 | .51 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.36 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.26 | .81 |

Chi-Square 28.40, df 26, P-value 0.33909, RMSEA 0.031, SRMR.039, GFI .94, NFI .96, NNFI .99, CFI .99

1.108 **Table 108 CLA and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CL2 | This store is the first choice for me among the same types of stores | .82 | .34 | 8.93 | .66 |
| CL3 | If there are two stores close to each other and both of them have similar products and prices, I will choose to shop here | .84 | .29 | 9.34 | .71 |
| CL4 | I will visit this store even if others are cheaper | .78 | .39 | 8.44 | .61 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .29 | 9.73 | .71 |
| EL2 | I speak highly of the shop in which I work to my friends | .77 | .40 | 8.74 | .60 |
| EL3 | I feel proud to work at this store | .90 | .19 | 10.91 | .81 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .68 | 5.85 | .32 |
| EL5* | I care about the fate of the shop in which I work | .84 | .28 | 9.86 | .72 |

Chi-Square 6.83, df 18, P-value 0.99151, RMSEA 0.000, SRMR.029, GFI .98, NFI .99, CFI 1.00, * Error covariance set for EL1 and EL5, 1.80

1.109 **Table 109 CLB , EM and ELI****

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| CL5* | Say positive things about the store to other people | .88 | .23 | 10.93 | .77 |
| CL6* | Do more business with the store in the next few months | .86 | .25 | 10.63 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.07 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .09 | 12.52 | .91 |
| CL9 | Recommend the store to someone who seeks your advice | .75 | .43 | 8.66 | .57 |
| EM2 | The music in the store is played at an appropriate volume. | .68 | .53 | 5.75 | .47 |
| EM3 | The music played in the store is appropriate. | .72 | .48 | 5.97 | .52 |
| ELI2 | The lighting creates a comfortable working atmosphere | .93 | .13 | 9.69 | .87 |
| ELI3 | The lighting is excellent at the store. | .86 | .27 | 8.83 | .73 |

Chi-Square 13.51, df 23, P-value 0.93998, RMSEA 0.000, SRMR.026, GFI .97, NFI .98, CFI 1.00, * Error covariance set for CL5 and CL6, 4.09, ** As noted ELI has been problematic and was analysed with other factors

1.110 **Table 110 CLB and EDE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CL5* | Say positive things about the store to other people | .88 | .23 | 10.92 | .77 |
| CL6* | Do more business with the store in the next few months | .86 | .25 | 10.62 | .75 |
| CL7 | Encourage relatives to do business with the store | .98 | .05 | 13.09 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .10 | 12.50 | .90 |
| CL9 | Recommend the store to someone who seeks your advice | .75 | .43 | 8.66 | .57 |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.11 | .35 |
| EDE3 | The interior décor of this store is attractive. | .82 | .33 | 9.51 | .67 |
| EDE4 | The store understands that the design of its facility is important to me. | .68 | .54 | 7.29 | .46 |
| EDE5 | The interior design is visually appealing | .73 | .47 | 7.98 | .53 |
| EC1 | The colours used create a pleasant atmosphere | .84 | .29 | 9.88 | .71 |
| EC2 | The colour scheme in the store is attractive | .85 | .27 | 10.09 | .73 |

Chi-Square 43.06, df 42, P-value 0.42549, RMSEA 0.016, SRMR.051, GFI .92, NFI .96, CFI 1.00, * Error covariance set for CL5 and CL6, 4.11

1.111 **Table 111 CLB and ELI- See Table 109**

1.112 **Table 112 CLB and ELAY**

| Label | Items | Standardised Loadings (error) | Error Variance | t-value | R ² |
|-------|--|-------------------------------|----------------|---------|----------------|
| CL5* | Say positive things about the store to other people | .88 | .23 | 10.93 | .77 |
| CL6* | Do more business with the store in the next few months | .86 | .25 | 10.62 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.08 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .10 | 12.51 | .90 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .43 | 8.66 | .57 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .62 | .61 | 6.25 | .39 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .77 | .41 | 7.79 | .59 |
| ELAY5 | The signs in the store provide adequate direction | .90 | .19 | 9.19 | .81 |

Chi-Square 16.87, df 18, P-value 0.53233, RMSEA 0.000, SRMR.042, GFI .96, NFI .98, CFI 1.00, * Error covariance set for CL5 and CL6, 4.09

1.113 **Table 113 CLB and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|--|-----------------------|----------------|---------|----------------|
| CL5* | Say positive things about the store to other people | .88 | .23 | 10.93 | .77 |
| CL6* | Do more business with the store in the next few months | .86 | .25 | 10.62 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.08 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .09 | 12.51 | .91 |
| CL9 | Recommend the store to someone who seeks your advice | .75 | .43 | 8.66 | .57 |
| EO1 | The store has a pleasant smell. | .84 | .29 | 9.23 | .71 |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 7.84 | .55 |
| ECLEAN2 | The store has clean aisles and exists | .72 | .49 | 7.46 | .51 |
| ECLEAN3 | The store maintains clean food service areas | .63 | .60 | 6.36 | .40 |

Chi-Square 21.97, df 25, P-value 0.63721, RMSEA 0.000, SRMR.053, GFI .95, NFI .97, CFI 1.00, * Error covariance set for CL5 and CL6, 4.10

1.114 **Table 114 CLB and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CL5* | Say positive things about the store to other people | .89 | .23 | 10.96 | .77 |
| CL6* | Do more business with the store in the next few months | .87 | .25 | 10.63 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.07 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .09 | 12.52 | .91 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .43 | 8.67 | .57 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.30 | .73 |
| ES3 | I like my job | .90 | .17 | 11.26 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 | .34 | 9.56 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .49 | 7.89 | .51 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.36 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.26 | .81 |

Chi-Square 37.68, df 42, P-value 0.66088, RMSEA 0.000, SRMR.034, GFI .93, NFI .97, CFI 1.00, * Error covariance set for CL5 and CL6, 4.08

1.115 **Table 115 CLB and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| CL5* | Say positive things about the store to other people | .88 | .23 | 10.93 | .77 |
| CL6* | Do more business with the store in the next few months | .87 | .25 | 10.63 | .75 |
| CL7 | Encourage relatives to do business with the store | .97 | .05 | 13.07 | .95 |
| CL8 | Encourage friends to do business with the store | .95 | .09 | 12.51 | .91 |
| CL9 | Recommend the store to someone who seeks your advice | .76 | .43 | 8.67 | .57 |
| EL1** | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .30 | 9.70 | .70 |
| EL2 | I speak highly of the shop in which I work to my friends | .77 | .40 | 8.74 | .60 |
| EL3 | I feel proud to work at this store | .90 | .18 | 10.95 | .82 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .68 | 5.84 | .32 |
| EL5** | I care about the fate of the shop in which I work | .84 | .28 | 9.84 | .72 |

Chi-Square 24.04, df 32, P-value 0.84312, RMSEA 0.000, SRMR.035, GFI .95, NFI .98, CFI 1.00, * error covariance set for CL5 and CL6, 4.09, ** Error covariance set for EL1 and EL5, 1.86

1.116 **Table 116 EM and EDE**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| EM2 | The music in the store is played at an appropriate volume. | .71 | .50 | 6.22 | .50 |
| EM3 | The music played in the store is appropriate. | .69 | .52 | 6.08 | .48 |
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.15 | .35 |
| EDE3 | The interior décor of this store is attractive. | .82 | .33 | 9.48 | .67 |
| EDE4 | The store understands that the design of its facility is important to me. | .69 | .53 | 7.40 | .47 |
| EDE5 | The interior design is visually appealing | .74 | .46 | 8.16 | .54 |
| EC1 | The colours used create a pleasant atmosphere | .83 | .31 | 9.74 | .69 |
| EC2 | The colour scheme in the store is attractive | .85 | .27 | 10.10 | .73 |

Chi-Square 25.49, df 19, P-value 0.14519, RMSEA 0.060, SRMR.12, GFI .94, NFI .96, CFI .99

1.117 **Table 117 EM and ELI**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| EM2 | The music in the store is played at an appropriate volume. | .68 | .54 | 5.70 | .46 |
| EM3 | The music played in the store is appropriate. | .72 | .48 | 5.99 | .52 |
| ELI2 | The lighting creates a comfortable working atmosphere | .93 | .13 | 9.54 | .87 |
| ELI3 | The lighting is excellent at the store. | .85 | .27 | 8.67 | .73 |

Chi-Square .50, df 1, P-value 0.48068, RMSEA 0.000, SRMR.0078, GFI 1, NFI 1, CFI 1

1.118 **Table 118 EM and ELAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| EM2 | The music in the store is played at an appropriate volume. | .71 | .50 | 5.57 | .43 |
| EM3 | The music played in the store is appropriate. | .69 | .52 | 5.48 | .48 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .66 | .57 | 6.70 | .43 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .81 | .35 | 8.56 | .65 |
| ELAY5 | The signs in the store provide adequate direction | .84 | .30 | 8.92 | .70 |

Chi-Square 9.53, df 4, P-value 0.04909, RMSEA 0.120, SRMR .055, GFI .96, NFI .94, CFI .96

1.119 **Table 119 EM and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|--|-----------------------|----------------|---------|----------------|
| EM2 | The music in the store is played at an appropriate volume. | .68 | .53 | 7.24 | .69 |
| EM3 | The music played in the store is appropriate. | .72 | .48 | 5.45 | .35 |
| EO1 | The store has a pleasant smell. | .84 | .29 | 9.12 | .68 |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 8.57 | .62 |
| ECLEAN2 | The store has clean aisles and exists | .72 | .49 | 7.42 | .50 |
| ECLEAN3 | The store maintains clean food service areas | .63 | .60 | 6.22 | .38 |

Chi-Square 12.21, df 8, P-value 0.04206, RMSEA 0.074, SRMR .040, GFI .96, NFI .96, CFI .99

1.120 **Table 120 EM and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| EM2 | The music in the store is played at an appropriate volume. | .96 | .08 | 7.98 | .26 |
| EM3 | The music played in the store is appropriate. | .51 | .74 | 3.80 | .92 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.32 | .73 |
| ES3 | I like my job | .90 | .19 | 11.22 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .82 | .34 | 9.59 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .49 | 7.92 | .51 |
| ES6 | I consider this employee as first choice | .80 | .35 | 9.38 | .65 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.25 | .81 |

Chi-Square 13.02, df 19, P-value 0.83738, RMSEA 0.000, SRMR .024, GFI .97, NFI .98, CFI 1.00

1.121 **Table 121 EM and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| EM2 | The music in the store is played at an appropriate volume. | .74 | .46 | 6.17 | .54 |
| EM3 | The music played in the store is appropriate. | .66 | .56 | 5.70 | .44 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .83 | .32 | 9.54 | .68 |
| EL2 | I speak highly of the shop in which I work to my friends | .77 | .41 | 8.62 | .59 |
| EL3 | I feel proud to work at this store | .91 | .17 | 11.18 | .83 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .58 | .67 | 5.94 | .33 |
| EL5* | I care about the fate of the shop in which I work | .84 | .29 | 9.82 | .71 |

Chi-Square 22.59, df 23, P-value 0.48466, RMSEA 0.000, SRMR.057, GFI .95, NFI .97, CFI 1.00,* Error covariance set for EL1 and EL5, 2.09

1.122 **Table 122 EDE and ELI**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| EDE1 | The materials used inside the store are pleasing & of high quality | .59 | .65 | 6.19 | .35 |
| EDE3 | The interior décor of this store is attractive. | .80 | .36 | 9.27 | .64 |
| EDE4 | The store understands that the design of its facility is important to me. | .66 | .56 | 7.10 | .44 |
| EDE5 | The interior design is visually appealing | .71 | .49 | 7.85 | .51 |
| EC1 | The colours used create a pleasant atmosphere | .88 | .22 | 10.76 | .78 |
| EC2 | The colour scheme in the store is attractive | .84 | .30 | 9.92 | .70 |
| ELI2 | The lighting creates a comfortable working atmosphere | .88 | .23 | 10.55 | .77 |
| ELI3 | The lighting is excellent at the store. | .90 | .18 | 10.99 | .82 |

Chi-Square 35.23, df 19, P-value 0.01311, RMSEA 0.094, SRMR.039, GFI .92, NFI .96, CFI .98

1.123 **Table 123 EDE and ELAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| EDE1 | The materials used inside the store are pleasing & of high quality | .60 | .65 | 6.20 | .35 |
| EDE3 | The interior décor of this store is attractive. | .81 | .34 | 9.40 | .66 |
| EDE4 | The store understands that the design of its facility is important to me. | .69 | .52 | 7.47 | .48 |
| EDE5 | The interior design is visually appealing | .72 | .48 | 7.97 | .52 |
| EC1 | The colours used create a pleasant atmosphere | .85 | .27 | 10.15 | .73 |
| EC2 | The colour scheme in the store is attractive | .85 | .28 | 10.03 | .72 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .64 | .59 | 6.65 | .41 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .83 | .31 | 9.43 | .69 |
| ELAY5 | The signs in the store provide adequate direction | .82 | .33 | 9.22 | .67 |

Chi-Square 28.78, df 26, P-value 0.32115, RMSEA 0.033, SRMR .042, GFI .94, NFI .97, CFI 1.00

1.124 **Table 124 EDE and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|---|-----------------------|----------------|---------|----------------|
| EDE1 | The materials used inside the store are pleasing & of high quality | .62 | .61 | 6.57 | .39 |
| EDE3 | The interior décor of this store is attractive. | .79 | .38 | 9.06 | .62 |
| EDE4 | The store understands that the design of its facility is important to me. | .69 | .52 | 7.50 | .48 |
| EDE5 | The interior design is visually appealing | .72 | .48 | 7.98 | .52 |
| EC1 | The colours used create a pleasant atmosphere | .85 | .27 | 10.18 | .73 |
| EC2 | The colour scheme in the store is attractive | .85 | .28 | 10.10 | .72 |
| EO1 | The store has a pleasant smell. | .83 | .30 | 9.59 | .70 |
| EO3 | The aroma in the store is fitting. | .71 | .49 | 7.70 | .51 |
| ECLEAN2 | The store has clean aisles and exists | .75 | .44 | 8.22 | .56 |
| ECLEAN3 | The store maintains clean food service areas | .64 | .59 | 6.66 | .41 |

Chi-Square 44.80, df 34, P-value 0.10176, RMSEA 0.058, SRMR.044, GFI .91, NFI .96, CFI .99

1.125 **Table 125 EDE and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| EDE1 | The materials used inside the store are pleasing & of high quality | .60 (.63) | .63 | 6.29 | .37 |
| EDE3 | The interior décor of this store is attractive. | .82 | .33 | 9.49 | .67 |
| EDE4 | The store understands that the design of its facility is important to me. | .69 | .52 | 7.48 | .48 |
| EDE5 | The interior design is visually appealing | .72 | .48 | 7.94 | .52 |
| EC1 | The colours used create a pleasant atmosphere | .84 | .29 | 9.87 | .71 |
| EC2 | The colour scheme in the store is attractive | .84 | .29 | 9.95 | .71 |
| ES1 | Generally Speaking, I am very satisfied with this job | .86 | .27 | 10.36 | .73 |
| ES3 | I like my job | .90 | .19 | 11.19 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 | .34 | 9.49 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .49 | 7.92 | .51 |
| ES6 | I consider this employee as first choice | .81 | .35 | 9.44 | .65 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.27 | .81 |

Chi-Square 74.74, df 53, P-value 0.02619, RMSEA 0.065, SRMR .071, GFI .89, NFI .95, CFI .98

1.126 **Table 126 EDE and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| EDE1 | The materials used inside the store are pleasing & of high quality | .60 | .64 | 6.20 | .36 |
| EDE3 | The interior décor of this store is attractive. | .82 | .32 | 9.55 | .68 |
| EDE4 | The store understands that the design of its facility is important to me. | .69 | .53 | 7.42 | .47 |
| EDE5 | The interior design is visually appealing | .73 | .47 | 7.98 | .53 |
| EC1 | The colours used create a pleasant atmosphere | .84 | .29 | 9.89 | .71 |
| EC2 | The colour scheme in the store is attractive | .84 | .29 | 9.94 | .71 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .83 | .31 | 9.59 | .69 |
| EL2 | I speak highly of the shop in which I work to my friends | .76 | .42 | 8.59 | .58 |
| EL3 | I feel proud to work at this store | .91 | .17 | 11.19 | .83 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .67 | 5.90 | .33 |
| EL5* | I care about the fate of the shop in which I work | .84 | .29 | 9.82 | .71 |

Chi-Square 51.59, df 42, P-value 0.14746, RMSEA 0.049, SRMR .057, GFI .91, NFI .95, CFI .99, * Error covariance set for EL1 and EL5, 2.08

1.127 **Table 127 ELI and ELAY**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| ELI2 | The lighting creates a comfortable working atmosphere | .85 | .28 | 9.57 | .72 |
| ELI3 | The lighting is excellent at the store. | .94 | .12 | 11.01 | .88 |
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .65 | .58 | 6.64 | .42 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .84 | .30 | 9.30 | .70 |
| ELAY5 | The signs in the store provide adequate direction | .81 | .34 | 8.99 | .66 |

Chi-Square 8.78, df 4, P-value 0.06675, RMSEA 0.112, SRMR .039, GFI .96, NFI .97, CFI .98

1.128 **Table 128 ELI and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|---|-----------------------|----------------|---------|----------------|
| ELI2 | The lighting creates a comfortable working atmosphere | .89 | .20 | 10.52 | .80 |
| ELI3 | The lighting is excellent at the store. | .89 | .21 | 10.43 | .79 |
| EO1 | The store has a pleasant smell. | .85 | .27 | 9.79 | .73 |
| EO3 | The aroma in the store is fitting. | .71 | .50 | 7.55 | .50 |
| ECLEAN2 | The store has clean aisles and exists | .72 | .48 | 7.77 | .52 |
| ECLEAN3 | The store maintains clean food service areas | .65 | .58 | 6.73 | .42 |

Chi-Square 7.21, df 8, P-value 0.51377, RMSEA 0.000, SRMR.030, GFI .98, NFI .98, CFI 1.00

1.129 **Table 129 ELI and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| ELI2 | The lighting creates a comfortable working atmosphere | .99 | .03 | 9.76 | .97 |
| ELI3 | The lighting is excellent at the store. | .81 | .35 | 7.97 | .65 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .28 | 10.26 | .72 |
| ES3 | I like my job | .90 | .19 | 11.23 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .82 | .33 | 9.61 | .67 |
| ES5 | I like my job more than many employees of other companies | .72 | .49 | 7.96 | .51 |
| ES6 | I consider this employee as first choice | .80 | .35 | 9.40 | .65 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.24 | .81 |

Chi-Square 19.02, df 19, P-value 0.45531, RMSEA 0.004, SRMR .036, GFI .95, NFI .98, CFI 1.00

1.130 **Table 130 ELI and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| ELI2 | The lighting creates a comfortable working atmosphere | .91 | .17 | 8.57 | .83 |
| ELI3 | The lighting is excellent at the store. | .87 | .24 | 8.22 | .76 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .83 | .31 | 9.60 | .69 |
| EL2 | I speak highly of the shop in which I work to my friends | .77 | .41 | 8.66 | .59 |
| EL3 | I feel proud to work at this store | .91 | .17 | 11.08 | .83 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .58 | .67 | 5.94 | .33 |
| EL5* | I care about the fate of the shop in which I work | .85 | .29 | 9.85 | .71 |

Chi-Square 57.90, df 12, P-value 0.79286, RMSEA 0.049, SRMR.040, GFI .98, NFI .99, CFI 1.00,* Error covariance set for EL1 and EL5, 2.03

1.131 **Table 131 ELAY and EO**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|--|-----------------------|----------------|---------|----------------|
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .66 | .56 | 6.85 | .44 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .81 | .35 | 8.84 | .65 |
| ELAY5 | The signs in the store provide adequate direction | .84 | .30 | 9.28 | .70 |
| EO1 | The store has a pleasant smell. | .80 | .36 | 8.79 | .64 |
| EO3 | The aroma in the store is fitting. | .71 | .49 | 7.52 | .51 |
| ECLEAN2 | The store has clean aisles and exists | .77 | .40 | 8.44 | .60 |
| ECLEAN3 | The store maintains clean food service areas | .65 | .57 | 6.71 | .43 |

Chi-Square 18.74, df 13, P-value 0.13137, RMSEA 0.068, SRMR.049, GFI .95, NFI .96, CFI .99

1.132 **Table 132 ELAY and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|--|-----------------------|----------------|---------|----------------|
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .64 | .59 | 6.47 | .41 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .83 | .30 | 9.05 | .70 |
| ELAY5 | The signs in the store provide adequate direction | .82 | .32 | 8.89 | .68 |
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .28 | 10.25 | .72 |
| ES3 | I like my job | .90 | .19 | 11.21 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .82 | .34 | 9.60 | .66 |
| ES5 | I like my job more than many employees of other companies | .72 | .49 | 7.97 | .51 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.37 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.31 | .81 |

Chi-Square 21.41, df 26, P-value 0.72052, RMSEA 0.000, SRMR .040, GFI .95, NFI .98, CFI 1.00

1.133 **Table 133 ELAY and EL**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| ELAY2 | In this store, the aisles between the shelves are wide enough to pass through easily | .65 | .58 | 6.64 | .42 |
| ELAY3 | It is easy to walk around this store and find what you are looking for | .84 | .30 | 9.30 | .70 |
| ELAY5 | The signs in the store provide adequate direction | .81 | .34 | 8.99 | .66 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .83 | .31 | 9.60 | .69 |
| EL2 | I speak highly of the shop in which I work to my friends | .77 | .41 | 8.66 | .59 |
| EL3 | I feel proud to work at this store | .91 | .17 | 11.08 | .83 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .58 | .67 | 5.94 | .33 |
| EL5* | I care about the fate of the shop in which I work | .85 | .29 | 9.85 | .71 |

Chi-Square 57.90, df 12, P-value 0.79286, RMSEA 0.049, SRMR.042, GFI .98, NFI .99, CFI 1.00, * Error covariance set for EL1 and EL5, 2.03

1.134 **Table EO and ES**

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|---|-----------------------|----------------|---------|----------------|
| EO1 | The store has a pleasant smell. | .80 | .35 | 8.78 | .65 |
| EO3 | The aroma in the store is fitting. | .72 | .49 | 7.53 | .51 |
| ECLEAN2 | The store has clean aisles and exists | .76 | .43 | 8.08 | .57 |
| ECLEAN3 | The store maintains clean food service areas | .67 | .56 | 6.85 | .44 |
| ES1 | Generally Speaking, I am very satisfied with this job | .86 | .27 | 10.36 | .73 |
| ES3 | I like my job | .90 | .19 | 11.23 | .81 |
| ES4 | There are no fundamental things I dislike about my Job | .81 | .34 | 9.53 | .66 |
| ES5 | I like my job more than many employees of other companies | .72 | .49 | 7.98 | .51 |
| ES6 | I consider this employee as first choice | .80 | .36 | 9.37 | .64 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .90 | .19 | 11.24 | .81 |

Chi-Square 48.54, df 93, P-value 0.05062, RMSEA 0.067, SRMR.058, GFI .91, NFI .96, CFI .99,

1.135 Table EO and EL

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|---------|---|-----------------------|----------------|---------|----------------|
| EO1 | The store has a pleasant smell. | .80 | .36 | 8.76 | .64 |
| EO3 | The aroma in the store is fitting. | .74 | .45 | 7.88 | .55 |
| ECLEAN2 | The store has clean aisles and exists | .74 | .45 | 8.87 | .55 |
| ECLEAN3 | The store maintains clean food service areas | .66 | .57 | 6.72 | .43 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .84 | .29 | 9.82 | .71 |
| EL2 | I speak highly of the shop in which I work to my friends | .77 | .41 | 8.63 | .59 |
| EL3 | I feel proud to work at this store | .90 | .18 | 11.03 | .82 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .57 | .68 | 5.83 | .32 |
| EL5* | I care about the fate of the shop in which I work | .85 | .27 | 10.00 | .73 |

Chi-Square 22.90, df 25, P-value 0.58343, RMSEA 0.049, SRMR.051, GFI .95, NFI .97, CFI 1.00, * Error covariance set for EL1 and EL5, 1.78

1.136 Table ES and EL

| Label | Items | Standardised Loadings | Error Variance | t-value | R ² |
|-------|---|-----------------------|----------------|---------|----------------|
| ES1 | Generally Speaking, I am very satisfied with this job | .85 | .27 | 10.34 | .73 |
| ES3 | I like my job | .91 | .18 | 11.41 | .82 |
| ES4 | There are no fundamental things I dislike about my Job | .82 | .34 | 9.61 | .66 |
| ES5 | I like my job more than many employees of other companies | .71 | .50 | 7.88 | .50 |
| ES6 | I consider this employee as first choice | .81 | .35 | 9.43 | .65 |
| ES7 | I am generally satisfied with the kind of work I do in this job | .89 | .21 | 11.07 | .79 |
| EL1* | Most of the time I am willing to put in extra effort so that the store remains a leading store. | .81 | .34 | 9.36 | .66 |
| EL2 | I speak highly of the shop in which I work to my friends | .77 | .40 | 8.76 | .60 |
| EL3 | I feel proud to work at this store | .92 | .15 | 11.54 | .85 |
| EL4 | I would turn down a job with comparable pay and career prospects to stay at this store | .58 | .66 | 6.06 | .34 |
| EL5* | I care about the fate of the shop in which I work | .82 | .33 | 9.51 | .67 |

Chi-Square 53.12, df 42, P-value 0.11680, RMSEA 0.083, SRMR.051, GFI .91, NFI .97, CFI .99, * Error covariance set for EL1 and EL5, 2.85