THE EFFECT OF NEWNESS OF PHYSICAL SURROUNDINGS ON THEME PARK VISITORS' REPURCHASE BEHAVIOUR

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DECLARATION

I declare that the PhD thesis entitled: ***The Effect of Newness of Physical Surroundings on Theme Park Visitors' Repurchase Behaviour*** is no more than 100,000 words in length, exclusive of tables, figures, appendices, and references. This submission is my own work and to the best of my knowledge it contains no materials previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, expect where due acknowledgement is made in the thesis.

Ching-Hung Chang

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ABSTRACT

Creating new physical surroundings is a strategy for differentiating services from rivals and improving the marketing performance of service firms, in particular in high 'facility-driven' leisure services such as theme parks. However, the effect of the level of newness of physical surroundings on repurchase behaviour and the method for measuring the perception of the level of newness of physical surroundings by comparing the past experience with present experiences of consumers have not been explored. This study integrates the concept of newness and the concept of physical surroundings to explore the effect of the level of newness of physical surroundings on theme park visitors' repurchase shopping values and actual repurchase behaviour.

The aims of the thesis are:

1. To develop a method measuring theme park visitors' perceptions of the level of newness of physical surroundings.
2. To explore the effect of the level of newness of physical surroundings on repurchase shopping values and actual repurchase behaviour of theme park visitors.

Three dimensions of new physical surroundings is developed conceptually: (1) 'aesthetic design', (2) 'spatial layout and functionality', and (3) 'point-of-purchase'. A conceptual framework, based on the S-O-R paradigm of environmental psychology, also developed for exploring the relationship between the three constructs (i.e. newness of physical surroundings, repurchase shopping values, and actual repurchase behaviour). There were three theme parks selected for the empirical tests based on the level of renewal of their physical surroundings. Repeat visitors to these parks were asked to compare their previous and present visits to indicate their perception of the level of newness of physical surroundings. There were 732 usable questionnaires obtained from the three selected theme parks. Three dimensions of the construct newness of physical surroundings were extracted and relabeled by exploratory factor

analysis including: 'spatial aesthetics', 'placement, décor and functionality', and 'point-of-purchase'.

Results show that the greater the level of newness of physical surroundings ('spatial aesthetics', 'placement, décor and functionality', and 'point-of-purchase') perceived by theme park visitors, the higher the level of shopping values (utilitarian value and hedonic value) and the higher the level of actual repurchase behaviour demonstrated by visitors. The result also indicates that the repurchase utilitarian and hedonic shopping values play a mediating role in the relationship between the level of newness of physical surroundings and actual repurchase behaviour.

This study provides a greater understanding of the effect of the newness of physical surroundings on repurchase utilitarian and hedonic shopping values and actual repurchase behaviour, in particular in the theoretical implication of the S-O-R paradigm of environmental psychology. In addition, the methodology which has been used in this study offers an alternative method for measuring the level of newness of physical surroundings by comparing previous perception and present perception of repeat theme park visitors. The level of newness of specific physical surroundings has been captured by this method. The managerial and marketing implication of this study is that the level of newness of physical surroundings are that managers need to understand repeat theme park visitors' perception in order to assist them to differentiate their new service from their rivals. Using this understanding, managers could compose their marketing strategies precisely to improve their marketing performance.

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CHAPTER 1.

INTRODUCTION

1.1 Research Background

One service marketing strategy for building the competitive advantages of service firms is to create market differentiation from their rivals by offering new services to consumers (Widing, Sheth, Pulendran, Mittal & Newman 2003; Zeithaml & Bitner 2000). In order to differentiate the level of newness between existing services and new services service providers need to know how consumers perceive the level of newness. In practice service providers might be able to renew their services based on their past work experience or subjective opinion, but unable to decipher consumers' perceptions. It is therefore important for service providers to understand how consumers perceive the level of newness of a service if they are to develop differentiation strategies and to build competitive advantages.

One differentiation strategy for competing with rivals and attracting new market segments is for service firms to create (Zeithaml & Bitner 2000), particularly in high 'facility-driven' leisure services such as theme parks and theme restaurants (Turley & Fugate 1992). Recent studies suggested that new physical surroundings can refresh consumers' experience (Hightower, Brady & Baker 2002; Zeithaml & Bitner 2000; Pine & Gilmore 1999) and enhance a service firm's marketing performance (Pin & Gilmore 1999; Bitner 1992). However, few empirical research models, based on the concept of newness of the physical surroundings have been explored. Bitner (1992) pointed out that service managers have difficulty measuring the extent to which new or renewed physical surroundings impact upon consumers' behaviour.

As theme parks are high 'facility-driven' leisure services (Turley & Fugate 1992), the physical surroundings of theme parks need to be changed or renewed periodically in order to attract more visitors. Roddewing Schiltz and Papke (1986) pointed out that in order to 'encourage more repeat visits old rides are replaced frequently and supplemented with new and more exciting ones. This has become even more important in today's saturated market' (p.88). They also indicated that average annual expenditure on new attractions is as high as US$ 5-6 million at many parks (p.88). Such expenditure is considered to be essential if theme parks intend to bring large numbers of park visitors back for return visits. As Crossley, Jamieson and Brayley (2001) noted:

> Due to the need to draw repeat consumers, many parks constantly add new attractions and renovate old ones. Since major rides such as state-of-the-art roller coasters can cost as much as US$25 million, changes tend to occur more with the smaller attractions and amenities (p.491).

Hence, it is clear that most theme parks attempt to utilise new attractions to make customers stay longer and spend more on their repeat purchases. However, there is an invisible factor that could cause theme parks to lose their revenue while renewing/changing theme parks' physical surroundings. This invisible factor could occur if theme park managers do not renew or change the physical surroundings of the park at the right time. Indeed, theme park managers or providers might frequently face a dilemma in deciding on a renewal scheme for their physical surroundings. At the heart of this dilemma is a financial issue: renewing the physical surroundings too early would decrease the profit margin, whereas renewing the physical surroundings too late would lose visitors. Hence, deciding when the optimal time for renewing physical surroundings is often difficult without an objective evaluation, especially when managers or providers have little understanding of their actual visitors' perception of the level of newness of the physical surroundings. They may tend to decide on a renewal scheme for physical surroundings from the appearance of the surroundings (e.g. new roller coaster or new decoration at main entrance gate) in a subjective way. Hence, measuring visitors' perception of the level of newness of physical surroundings could assist theme park managers or providers with planning the renewal of physical surrounding and avoid decreasing profits by renewing their physical surroundings in a proper time.

1.2 Identification of Research Gaps and Research Questions

Four research gaps have been identified as follows.

(1) Little is known about measuring the perception of the level of newness of physical surroundings, particularly in theme parks.

Newness is an attribute accorded to a product or service by an observer (Blythe 1999). Newness is conceptually related to innovation (Rogers 2003). Dewar and Dutton (1986) defined innovation as an idea, practice, or material artifact perceived to be new by the relevant unit of adoption (1986). Rogers (2003) defined innovation as '*an idea, practice, or object that is perceived as new by an individual or other unit of adoption.*(p12)' In the classification of innovation Robertson (1967) classified innovation as continuous, dynamically continuous, and discontinuous. Similarly, de Brentani (2001) and Dewar and Dutton (1986) had similar way to classify the level of newness/innovation between 'radically new' and 'incrementally new'. However, the definition of innovation/newness cannot be clearified unless we rely on consumer perception of newness and accept consumers' opinion of what is new and what is not new (Robertson 1971). Similar argument of the newness/innovation classification can be seen on Gatignon and Robertson (1991) and Ziamou's (1999) studies. This argument opened the issue of newness measurement to future study.

Innovativeness is defined as 'the extent to which an individual makes an innovation decision independently of the communicated experience of other' (Midgley & Dowling 1978, p.49). Similar concepts to innovativeness are including novelty seeking (Hirschman 1980), Venturesomeness (Rogers 2003), experience seeking (Hirschman 1984) and 'cognitive sensory innovativeness' (Venkatraman & Price 1990). These concepts are based on an individual's tendency toward newness. Consumer innovativeness researchers, Midgley and Dowling (1978) pointed out that the innovation scale might not be widely applied to various types of product/service. More work on the consumer innovativeness scale is need. Steenkamp and Baumgartner (1992) also claimed that most

innovativeness instruments fail to consistently keep their predictive ability on change behaviour. Fell, Hansen & Becker (2003) have a similar argument that innovativeness measurement has recall problems related to the ability of consumers to remember the exact time when they adopted new products/services. Thus, the respondent will be categories in a range of time frame for improving the predict ability of the questionnaire. Additionally, Roehrich (2004) reviewed the concept of consumer innovativeness in relation to innovative behaviour. He reviewed the present relevant studies and raised two research questions: (1) 'are the different theoretical conceptualisations of innovativeness equality valid and compatible?' (2) 'do the scales (innovativeness scales) really express each theoretical standpoint?' (p.671). In his review he indicated that the present innovativeness scales may be imperfect in their predictive validity. Both 'newness attraction' and 'independence of judgment/attitude toward risk/change' had no predictive validity to individual general behaviour, but 'newness attraction' has low to average predictive validity to product consumption. Two research directions were suggested: (1) what does 'new product' mean for an individual? and (2) do we really know the level at which an individual gives his/her answer? Hence, Roehrich suggested that a new scale for measuring consumer innovativeness could be an interesting topic for future research.

The method of measuring the perception of the level of newness of physical surroundings has not been explored in current literature. Most of the studies reported in the marketing literature to date (e.g. Johnson, Mayer & Champaner 2004; Mayer & Johnson 2003; Hightower et al. 2002; Yoo, Oark & MacInnis 1998; Baker, Grewal & Parasuraman 1994) are based on present experience of consumers, but pay little attention to the method of experience comparison. Even though some environmental psychologists (e.g. Grossbart, Mittelstaedt, Curties & Rogers 1975) measured environmental newness with semantic differential type questionnaires (e.g. old and new), the specific surroundings (e.g. new lighting and new layout) were unable to be identified in their studies. In a previous study (Cho & Pucik 2005) found consumer innovativeness is an antecedent of perceived quality. Knowing consumer innovativeness could benefit the understanding of perceived quality. In addition, some psychiatric studies (Whitehead, Plosky, Crookshank & Fik 1984; Holahan & Saegert 1973) have

found that redesigned psychiatric wards improve patients' experience, but the method utilised for measuring the perception of the level of newness of the physical surroundings was not precisely captured based on a longitudinal consideration from the same respondent. These two studies utilised two groups of patients to compare their perception of the redesigned ward. One group is for perceiving the redesigned ward. Another group of patient is for perceiving the original ward. This method however, is limited in measuring the level of newness using same respondent because a patient perception is limited without knowledge of the original ward. He or she may recall his or her previous experience from other ward to compare his or her perceived redesigned ward. This limitation can be refined by a better method. This better method should control the longitudinal experience of a respondent. A respondent's past experience should focus on the same target (e.g. a theme park, a ward or a supermarket). Based on this research gap, a better method is therefore needed to assess the level of newness of physical surroundings.

Furthermore, survey methods to date might be able to predict theme park visitors' satisfaction levels, but they pay little attention to measure the level of newness of the physical surroundings, and the effect of the level of newness of physical surroundings on actual repurchase behaviour. Theme park providers may know about the performance of the newness of the physical surroundings from their financial returns. They could also know about the characteristics of their visitors from ticket sales. However, with a lack of understanding of the visitors' experience, theme park providers may have difficulty ascertaining visitors' actual repurchase behaviour in relation to their perception of the level of newness of the physical surroundings. They may also be uncertain about the characteristics of the types of visitors who are attracted by their new or renewed physical surroundings. Such a method could help provide data to improve their planning of physical surroundings.

(2) The perception of the level of newness of physical surroundings has not been explored in the current environmental psychology models, particularly in service marketing.

The second research gap is a theoretical gap. Three significant environmental psychology models have been applied in service marketing for exploring the effect of physical surroundings on consumers in current marketing literature. These are Mehrabian and Russell's (1974) Stimulus-Organism-Response (S-O-R) model, Baker's store environment model (Baker et al. 1994; Baker, Levy & Grewal 1992), and Bitner's (1992) servicescape model. Mehrabian and Russell (1974) conceptualised a psychological S-O-R model, which interpreted emotional responses of consumers toward environmental settings and their behaviour in reaction to these responses. These emotional responses included pleasure, arousal, and dominance (i.e. PAD scale). A series of studies (e.g. Sherman, Mathur & Smith 1997; Donovan, Rossiter & Marcoolyn 1994; Donovan & Rossiter 1982) utilised Mehrabian and Russell's S-O-R model in consumer services, and these studies showed that the environmental stimuli of service positively affect emotional states, and, therefore, purchase behaviours. Some environmental psychologists also confirmed this outcome by measuring single physical surroundings in detail such as music (Yalch & Spangenberg 2000), odour (Michon, Chebat & Turley 2005; Chebat & Michon 2003), colour (Bellizzi & Hite 1992; Bellizzi, Crowley & Hasty 1983), in-store display (Fiore, Yah & Yoh 2000; Chevalier 1975), and lighting (Summers & Hebert 2001; Areni & Kim 1994).

Baker's store environment model is a model stem from Mehrabian and Russell's S-O-R model, but this model measures the environmental stimuli of service with more specific physical surroundings of services than does Mehrabian and Russell's S-O-R model. This model also formulated the construct of merchandise quality and the construct of service quality as the organism variable, as well as utilising store image as the response variable in their S-O-R model (Baker et al. 1994).

Similarly, Bitner's servicescape model upgraded the theoretical implication by conceptualising the S-O-R model from both the consumer perspective and the employee perspective. The dimensions of the servicescape model focused more on physical surroundings than did the dimensions used in Mehrabian and Russell's S-O-R model and in Baker's store environment model. In addition, Bitner's servicescape model has been empirically tested more in 'facility-driven' and 'hedonic-driven' leisure services such as sports stadiums (Hightower et al. 2002; Wakefield & Blodgett 1999, 1996), casinos (Wakefield & Blodgett 1996), or restaurants (Reimer & Kuehn 2005) than have the other two models.

However, Mehrabian and Russell's S-O-R model, Baker's store environment model, and Bitner's servicescape model have not been integrated with the measurement of the level of newness of physical surroundings (i.e. new or renewed physical surroundings as the stimulus). A fulfilment of this research gap can provide a better understanding of the level of newness of physical surroundings in relation to the environmental psychology models.

(3) The concept of 'shopping values' has not been explored in association with the perception of the level of newness of physical surroundings.

Perceived shopping value is operationalised as a function of utilitarian shopping value and hedonic shopping value in the current literature (Stoel, Wickliffe & Lee 2004; Babin & Attaway 2000; Griffin, Babin & Modianos 2000; Babin & Darden 1995). Babin and Attaway (2000) explained that 'utilitarian value reflects task-related worth, and hedonic value reflects worth found in the shopping experience itself aside from any task-related motives' (p.92). Griffin et al. (2000) also indicated that 'the utilitarian value is realised when the needed product(s) is obtained, and it is increased as the product is obtained more effortlessly (p.35),' and 'the hedonic value results from the immediate personal gratification derived from the emotional benefits and entertainment provided by consumption experience' (p.35). However, these two shopping values (i.e. utilitarian value and hedonic value) have not been explored in association with the effect of the level of newness of physical surroundings in particular from the standpoint of repeat consumers. Therefore, research exploring the concept of

'shopping values' in association with the perception of the level of newness of physical surroundings can provide a better understanding of the effect of the level of newness of physical surroundings on 'shopping values'.

(4) Actual repurchase behaviour has not been explored in relation to repeat consumers' perception of the level of newness of physical surroundings.

Serving a repeat consumer costs less than serving a new consumer (Widing et al. 2003). A service firm serving a new consumer might have to spend more time and money on pre-purchase marketing activities. In contrast, serving a repeat consumer might not require spending as high a level of time and money on pre-purchase marketing activities as does serving a new consumer. However, no previous studies have explored the repurchase behaviour of repeat consumers in relation to their perception of the level of newness of physical surroundings. Therefore, research focused on this research gap can provide a better understanding of the effect of the level of newness of physical surroundings on repurchase behaviour of repeat consumers.

Behaviour and attitude are the two perspectives that are frequently viewed as consumer loyalty (Yi & La 2004; Baker & Crompton 2000). The behavioural perspective is based on repeat purchases and preference of brand or service over time (Bowen & Shoemaker 1998), whereas the attitudinal perspective is based on the strength of the effects, such as on intentions to repurchase (Baker & Crompton 2000; Getty & Thompson 1994). Therefore, consumers actual repurchase behaviour may be viewed as being based on the behavioural perspective of consumer loyalty (Pritchard, Howard & Havitz 1992; Tellis 1988; Gitelson & Crompton 1984; Newman & Werbel 1973). However, the effect of the perception of the level of newness of physical surroundings on consumers has not been explored with respect to actual repurchase behaviour, in particular in S-O-R related models of environmental psychology. Studies reported in the current literature which were based on the effect of the perception of physical surroundings have mostly utilised behavioural intention as the response variable in the manner of the environmental psychology models such as Stoel et al. (2004), Hightower et al. (2002) and Wakefield and Blodgett (1999). Therefore,

exploring the effect of the level of newness of physical surroundings on consumers by conceptualising actual repurchase behaviour of repeat consumers can provide a better understanding of the concept of 'actual repurchase behaviour' in environmental psychology models.

Two research questions are composed:

Research question 1: How can visitors' perception of the level of newness of physical surroundings in theme parks be measured?

Research question 2: How do theme park visitors' perceptions of the level of newness of physical surroundings affect their repurchase behaviour?

Therefore, the research aims of this study are discussed below.

1.3 Research Aims

It has previously been shown that there is substantial growth potential for leisure services industry. This study examines how the level of newness of physical surroundings are perceived by the visitors and explore the effect of the level of newness of physical surroundings on their repurchase behaviour with particular reference to repeat visits to theme parks.

To explore the visitors' perception of the level of newness of physical surroundings, a conceptual framework will be developed to capture the linkage between the levels of newness of physical surroundings and repurchase behaviour. The necessity to develop a relevant model is essential to such an undertaking and is central to this study. The model brings together the insights of the S-O-R paradigm and the utilitarian and hedonic consumption values. It provides a base from which to develop hypotheses and investigate the relationship between the levels of newness of physical surroundings and repurchase shopping values and actual repurchase behaviour of theme park

visitors. It is hoped that the results of the study provide a platform for creating and developing new consumer behaviour concepts that may be applied to leisure service industry more widely.

In **Section 1.2** four research gaps were identified and two research questions were stated. The research aims for this study are:

1. To develop a method measuring theme park visitors' perceptions of the level of newness of physical surroundings.

2. To explore the effect of the level of newness of physical surroundings on repurchase shopping values and actual repurchase behaviour of theme park visitors.

Literature relating to the perception of newness and the assessment of the level of newness of physical surroundings will be reviewed on **Chapter 2** of this study to provide a theoretical and methodological foundation for exploring the first research aim. The development of a valid survey questionnaire to investigate the level of newness of physical surroundings and exploration of the relevant factors (e.g. time gaps between previous and present experiences or different level of newness of theme parks) which influence theme park visitors' perception of the level of newness of physical surroundings will be discussed in **Chapter 3** and **4**. The concepts relating to the second research aim stem from various concepts of environmental psychology, the concept of shopping values and the concept of repurchase behaviour. These concepts are able to offer theoretical and methodological foundations for exploring the aim.

1.4 The Scope of this Study

This study focuses on the effect of the level of newness of physical surroundings on repeat visitors' repurchase shopping values, and actual repurchase behaviour to theme parks. Other relevant concepts (such as intangible services, relationship marketing, promotion, and consumer innovativeness) are not being studied in this study. A further discussion of the limitations of this study and recommendations for the direction for future research will be provided in **Section 7.4** and **7.5** of **Chapter 7**.

1.5 Thesis Overview

The remainder of this study is divided into six chapters. **Chapters 2** and **3** provide a conceptual foundation and theoretical development for the constructs to be examined. **Chapter 2** reviews the relevant literature for underpinning the foundational concepts of the research gaps. The literature in relation to the research gaps, which were formulated in **Section 1.2** of this chapter, is reviewed. **Chapter 3** is a connecting chapter between the abstract and empirical levels of theory building. This chapter develops the conceptual framework of this study for exploring the research aims. The hypotheses and the underpinning literature of the conceptual framework are also discussed in this chapter.

Chapter 4 presents the research methodology for operationalising the hypotheses developed in **Chapter 3**. This chapter also discusses questionnaire development, the sampling and the data analysis procedure.

Chapter 5 reports on the quality of the data including the manipulation check, the descriptive statistics, the exploratory factor analysis, and correlation coefficient between the items of the measures. The goodness of the data will be statistically checked before moving on to the hypotheses testing in **Chapter 6**.

Chapter 6 reports on results of hypotheses testing and discussion of the effect of the level of newness of physical surroundings on repurchase utilitarian and hedonic shopping values and actual repurchase behaviour.

Chapter 7 is the concluding chapter. It aligns with **Chapter 1** in summarising the implications of this study in relation to theories, research methodologies and management. The limitations of this study and directions for future research are also discussed.

1.6 Summary

In this chapter the research gaps were formulated. From these, the research aims were developed. An overview of this study was also provided.

The next chapter presents a review of the literature related to this study.

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CHAPTER 2.

LITERATURE REVIEW

2.1 Introduction

The four reasons for this study which have been identified in **Section 1.2** of **Chapter 1** are as follows:

(1) Little is known about measuring the perception of the level of newness of physical surroundings, particularly in theme parks.

(2) The perception of the level of newness of physical surroundings has been little explored in the current environmental psychology models, particularly in service marketing.

(3) The concept of 'shopping values' has been little explored in association with the perception of the level of newness of physical surroundings.

(4) Actual repurchase behaviour has been little explored in relation to repeat consumers perception of the level of newness of physical surroundings.

In this chapter the literature was reviewed as follows: **Section 2.2** 'perception of the level of newness'; **Section 2.3** 'perception of physical surroundings in services'; **Section 2.4** 'the dimensions of physical surroundings'; **Section 2.5** 'the assessment of the level of newness of physical surroundings'; **Section 2.6** 'the environmental psychology models in service marketing'; **Section 2.7** 'shopping values'; and **Section 2.8** 'actual repurchase behaviour'. In each section advanced sources were provided clarify the research gaps identified in **Section 1.2** of **Chapter 1**. In **Sections 2.2**, **2.3**, **2.4**, and **2.5** the literature was

reviewed in relation to **Research Gaps 1** and **2**. In **Sections 2.6**, **2.7**, and **2.8** the literature was reviewed in relation to **Research Gaps 3** and **4**.

2.2 Perception of the Level of Newness

The introduction of a new service is complex and requires resources, but it frequently meets with failure (de Brentani 1995). This is because 'newness' is the interface between the consumer and the relevant adoption objects (Blythe 1999) and the level of newness influences the consumers' perception and decision to adopt such a new product or service (Gatignon & Robertson 1991). Lafferty, Goldsmith and Hult (2004) stated that 'the perception of newness may be important for attracting consumers and enticing them to purchase the product' (p.26). Newness is an attribute of a product or a service as perceived by an observer (Blythe 1999). The classification of the perception of the level of newness has applied to the marketing literature. In the classification of innovation Robertson (1967) classified innovation as continuous, dynamically continuous, and discontinuous. A *continuous* innovation has the lowest degree of influence on a developed product or service; alternation of a product or service is involved, rather than the establishment of a new product or service. A *dynamically continuous* innovation has a greater effect on a developed product or service than a continuous innovation does, although it still that it does not generally alter the developed product or service. It may involve the creation of a new product or service, or the alternation of an existing product or service. A *discontinuous innovation* involves the development of a new product or service and the development of new behaviour patterns. Two previous studies (de Brentani 2001; Dewar & Dutton 1986) make a distinction between 'radically new' and 'incrementally new'. These studies explain that 'radically new' involves a fundamental change that represents a revolutionary change to present knowledge. In contrast, 'incrementally new' involves a minor improvement or simple adjustment to present knowledge. The major difference between 'radical' and 'incremental' is the level of novel process content embodied in the perceived product or service.

Blythe (1999) indicated that newness is derived from two characteristics: the product/service and the observer. Firstly, the product/service characteristics focus on the product/service side to extract the new characteristic compared with the previous or other products/services. For example, a theme park may have installed a new decoration at the entrance gate. Secondly, the observer characteristic focuses on the visitors' ability to differentiate and explain the level of newness they perceive about objects such as a new colour on the paintwork or a new ride. The observer characteristic determines the perception of the level of newness of products or services. For example, the larger the time gap between the last visit and present visit, the greater the level of newness of physical surroundings that may be perceived by the visitor. Indeed, in terms of individual difference, what is new to one person may not be new to another, and it may be possible for one observer to accord a greater level of newness to a given product or service than he or she would accord to another. Equally, the same observer may be able to make comparisons between two different products/services and ascribe a different level of newness to each (Blythe 1999). For example, a theme park visitor may perceive a greater level of newness in a roller coaster and a lower level of newness in a miniature garden at a theme park.

A concept relating to the perception of newness is the concept of 'absolute threshold'. According to this concept, the lowest level of a difference or a change which can be perceived (e.g. temperature, sound and petrol price), is called the 'absolute threshold' (Schiffman & Kanuk 2004). For example, the point at which a visitor can perceive a difference between 'new' and 'old' is that person's absolute threshold for the stimulus. However, Ernst Weber, a nineteenth-century German scientist, who discovered the 'just noticeable difference' between two stimuli, argued that the just noticeable difference was not an absolute amount, but an amount relative to the intensity of the first stimulus (Schiffman & Kanuk 2004; Britt & Nelson 1976). Thus, 'the just noticeable difference' or 'the differential threshold' is the minimal difference that can be detected between two similar stimuli. In order to perceive the difference between the initial stimulus and the second stimulus, the second stimulus has to have greater intensity than the initial stimulus (Schiffman & Kanuk 2004). According to Weber's law, an additional level of stimulus equivalent to the just

noticeable difference must be added for the majority of people to perceive a difference between the resulting stimulus and the initial stimulus (Britt & Nelson 1976). Weber's law holds for all the senses and for almost all intensities. For example, when a theme park visitor experiences light blue paint on walls, he/she could easily identify a high level of change from light blue to a darker colour (e.g. black) over a period of time. However, while Weber's 'just noticeable difference' can be used to identify new and old, it cannot be used to distinguish the level of newness specifically. Service providers need more specific information about what level of newness their consumers' perceived to improve their service.

In terms of the assessment of the level of newness, Robertson (1971) stated that the method to distinguish newness/innovation cannot be satisfied unless we rely on consumers' perception and accept the most consumers' opinion of what is new and what is not new. Lambert (1972) pointed out the importance of newness assessment, stating that 'assessment of consumers' perception of newness can help management avoid disastrous assumptions that consumers will recognise a product's innovative quality (p.431)'. A number of studies (Lafferty et al. 2004; Ziamou 2002; Ziamou & Ratneshwar 2002; Ziamou 1997; Gatignon & Robertson 1991) indicated that the level of newness influences the individual's information processing and decision-making toward a purchase. A series of studies by Ziamou (Ziamou 2002; Ziamou & Ratneshwar 2002; Ziamou 1997) found that 'really new' (i.e. completely new) technology influenced a consumer's judgment of a product, but the level of newness, such as 'incrementally new' was not fully captured by these studies. Lafferty et al. (2004) found that perceived newness of a cell phone is positively related to the respondent's attitude towards brand and purchase intentions. Those studies provide an outcome to this study that newness can influence individuals' purchase behaviour.

In summary, this section has explained that the perception of the level of newness is a series of psychological processes regarding Weber's 'just noticeable difference'. The classification of newness has also reviewed and it can be distinguished from 'really new' to 'incrementally new' (de Brentani 2001; Dewar

& Dutton 1986). With an understanding of the perception of newness, next section reviewed the perception of physical surroundings in services.

2.3 Perception of Physical Surroundings in Services

Perception also is 'a function of multiple sources of input from the environment and from an individual's own predisposition, expectations, motives, and knowledge gleaned from past learning experience' (Lin 2004, p.164). Sekuler and Blake (2002) also stated that to understand perception completely, people have to specify the type of the environment and this type of environment determines 'what there is to perceive' (p.2). As a 'stimulus' is defined as 'any input to the sense' (e.g. smell, test, touch, seeing, and hearing), an individual's 'sensation is the immediate and direct response of the sensory organs to stimuli' (Schiffman & Kanuk 2004, p.159). An individual's perception of sensation (e.g. visual, touch, smell, hearing, and taste) change will 'depend on energy change within the environment where the perception occurs (i.e. on differentiation of input). A perfectly bland or unchanging environment, regardless of the strength of the sensory input, provides little or no sensation at all (Schiffman & Kanuk 2004, p.159).'

One of the significant psychological theories adapted for developing environmental perception is *information processing.* This theory defines information as 'a set of perceived multidimensional attributes (cues) of a stimulus' (Bither & Ungson 1975, p.2). Specifically, this definition divides information into two phases. Firstly, information is *perceivable* in that an individual perceives information from external sources, and processes it through an information processing system. Secondly, *attributes* (i.e. cues or dimensions) of a stimulus (e.g. a new building) format the information that is assumed in the above definition (Chestnut & Jacoby 1977). Chestnut and Jacoby explained the entire information processing system using the Stimulus-Organism-Response (S-O-R) paradigm, which is very similar to an Input-Output based paradigm. Information works as a stimulus and is perceived by an individual before the

organism stage and response stage are launched. The response stage in the S-O-R paradigm is often related to the effect of consumer purchase behaviour (Chestnut & Jacoby 1977). This S-O-R paradigm therefore provides a theoretical prototype for exploring the effect of the level of newness of physical surrounding on consumers. A further discussion of the S-O-R paradigm of environmental psychology in service marketing will be presented in **Section 2.6** of this chapter.

Physical surroundings are frequently viewed as atmospherics or as tangible services. Kotler (1973) pointed out that 'place' is one of the most important factors of the total product/service experience. He defined 'place' for a product/service as where consumers buy or consume a product or service, and consumers' internal responses towards the place are strongly related to its atmosphere. Hence, the definition of atmospherics has been used more specifically in relation to services. Turley, Fugate and Milliman (1990) explained that 'atmospherics' are the controlled items of the interior and exterior of a service facility, which can awaken the emotional or psychological responses of consumers. Johnson et al. (2004) also defined 'atmospherics' as 'the effort to design buying environments to produce emotional effect in a consumer that enhance purchase probability' (p.2). Hoffman and Turley (2002) pointed out that atmospherics are constructed in two elements: tangibles and intangibles. Tangible elements include the 'building', the 'carpeting', the 'fixtures', and the 'point-of-purchase decorations'. In contrast, intangible elements are the 'music', the 'temperature', and the 'scents of a service'. Both tangible and intangible elements are the basis for creating the service experience of consumers.

However, tangible services are important in leisure services such as hockey arenas, cinemas, and recreation centres (Wakefield & Blodgett 1999). Wakefield and Blodgett (1999) stated three reasons why the effect of the perception of tangible service on quality perception has been little explored. Firstly, they argued that previous studies frequently focused on those services that are very utilitarian-based such as travel agencies, banking, insurance, or fast-food restaurants. Consumers for those services generally have a short-stay of experience with the tangible services. Comparing those services with the facility driven leisure services, consumers have a long-stay of experience with the

tangible services and their experience could be different from those short-stay consumers. Hence, long-stay consumers' perception of service quality will be based more on tangible services. Secondly, they pointed out that 'tangible physical surroundings may more directly influence consumers' affective response' (p.52) because intangible services (e.g. odour, music, and cleanliness) may not be adequately captured by previous studies. Thirdly, the measurement of the effect of tangible services on the perception of service quality requires the inclusion of more specific items such as the design and décor of physical facilities. Wakefield and Blodgett's (1999) three arguments of the effect of the perception of tangible services on quality perception provide both theoretical and managerial implications of the effect of the 'tangible' type of physical surroundings on consumer emotional responses.

Previous studies found that consumers' perception of physical surroundings positively affect their emotional states such as pleasure and arousal (Sherman et al. 1997; Donovan et al. 1994; Baker et al. 1992), merchandise and service quality (Hightower et al. 2002; Baker et al. 1994), positive affect (Hightower et al. 2002), positive/negative emotions (Yoo et al. 1998), excitement (Wakefield & Blodgett 1999, 1998), desire to stay (Wakefield & Baker 1998), satisfaction (Wakefield & Blodgett 1996), price fairness (Babin, Hardesty & Suter 2003), and shopping value (Stoel et al. 2004). Specifically, Baker et al. (1992) found that, the higher the image of the store environment (ambient and social), the greater the level of arousal perceived by the respondent. Sherman et al. (1997) found that physical surroundings of stores affect shoppers' pleasure and arousal emotions. Baker et al. (1994) found that the ambient dimension and social dimension of store environment affect respondents' perception of merchandise and service quality. Hightower et al. (2002) reported that a sport stadium's Servicescape affects spectators' perception of service quality. Wakefield and Blodgett (1996) found that physical surroundings ('layout accessibility', 'facility aesthetics', 'seating comfort', 'electronic equipment/displays', and 'facility cleanliness') positively affect the satisfaction of sports spectators and casino consumers with the facility. Wakefield and Baker (1998) found that consumers' perception of physical surroundings of shopping malls positively affect their excitement and desire to stay. Specifically, they also indicated that design, music

layout, and light/temperature have a stronger effect on excitement than décor does. The consumer's desire to stay can be affected by music, layout, and décor, but design and light/temperature do not have a significant influence. Yoo et al. (1998) found that store facilities (e.g. general facilities, store size, and space for rest), and atmosphere (e.g. design, lighting, and inside decoration) affect the positive (e.g. pleased, attractive, and satisfied) and the negative (e.g. ignored, anxious, and angry) emotions of consumers. Wakefield and Blodgett (1999) found that tangible services ('building design', 'equipment', and 'ambience') positively affect sport services (such as hockey spectators, cinema consumer, and recreation centre consumer) consumers' feeling of excitement. Babin et al. (2003) found that colour and light affect shoppers' perception of price fairness. Stoel et al. (2004) found that shoppers' satisfaction of mall attributes positively affects both utilitarian and hedonic values. However, these studies did not explore the effect of the level of newness of physical surroundings on emotional states. Research focused on this research gap can offer a better understanding of the effect of the level of newness of physical surroundings on consumer emotional states.

As the 'intangible' type of physical surrounding (e.g. music, odour, cleanness, and comfort) is difficult to control in leisure services (Wakefield & Blodgett 1996, 1994), the effect of the 'tangible' type of physical surroundings on consumers has been explored in the current literature. A number of studies have explored the effect of physical surroundings on consumer behaviour in areas such as colour (Bellizzi & Hite 1992; Bellizzi et al. 1983), in-store display (Fiore et al. 2000; Chevalier 1975), and lighting (Summers & Hebert 2001; Areni & Kim 1994). However, for example, Bellizzi et al. (1983) explored the use of colour in retail store design. Their findings suggested that warm colours (yellow and red) are unpleasant, negative, tense, and less attractive than cool colours (green and blue). A follow-up study by Bellizzi and Hite (1992) also showed that perception of colour affects the emotional states (pleasure and arousal) of consumers in retail environments. Chevalier (1975) reported that both 'the level of price cut' and 'advertising' are unable to affect product display. Fiore et al. (2000) suggested that the combination of product display and ambient fragrances is an important marketing tool to attract shoppers. In addition, Areni and Kim

(1994) found that brighter lighting influenced shoppers to examine and handle more merchandise, though either soft or bright lighting in a wine cellar inside a restaurant did not influence sales. Summers and Hebert (2001) confirmed Areni and Kim's finding and indicated that shoppers spend more time at the displays when the lighting is 'turned-on' than when the lighting is 'turned-off'.

In terms of the effect of the perception of newness of physical surroundings, some psychiatric studies (Whitehead et al. 1984; Holahan & Saegert 1973) have found that redesigned psychiatric wards improve patients' experience. Holahan and Saegert (1973) reported that improvements (remodelled ward) in the quality of the environment led to an increase in social activity in the ward and demonstrated that the quality of an environment can influence patients' moods and behaviour. Similarly, Whitehead et al. (1984) found that redesigning the psychiatric ward, such as the overall appearance of the ward and the type of furniture in the ward, can make patients feel better. However, these two studies have some limitations in relation to the research method used, particularly for capturing the level of newness in the physical surroundings and in relation to the sample size in particular. The method utilised in these two studies will be critically reviewed in **Section 2.5** of this chapter.

In summary, this section explained the meaning of physical surroundings. The effect of the perception of physical surroundings was reviewed and showed that (1) the measurement of physical surroundings requires specific information to identify which particular physical surroundings affect consumers; (2) tangible services affect consumer behaviour particularly in 'facility-driven' leisure services; (3) the redesign of physical surroundings affects consumers' mood and behaviour.

2.4 The Dimensions of Physical Surroundings

Tangible services are frequently related to consumers' visual perceptions (Mayer & Johnson 2003). Kotler (1973) conceptualised four *visual* dimensions as:

'colour', 'brightness', 'size', and 'shape'. However, he gave little detail about these four visual dimensions and they were not empirically tested. Baker et al. (1992) utilised two dimensions of store environment: ambient (e.g. music and lighting) and social (e.g. number and affability of salespersons). In a follow-up study Baker et al. (1994) developed three dimensions of store environment: ambient (music and light), design (e.g. colour, display, layout), and social (e.g. number of salespersons, and uniform of salesperson). The 'design' and 'social' dimensions are more visual in nature, whereas the ambient dimension is more 'nonvisual' in nature (Baker, Parasuraman, Grewal & Voss 2002). However, those studies paid little attention to constructing the dimensions of newness of physical surroundings.

Similarly, Bitner (1992) conceptualised three dimensions of physical surroundings in her servicescape model, which includes: 'ambient conditions' (e.g. music, and odour), 'space/function' (e.g. layout, and equipment), and 'signs, symbols and artefacts' (e.g. signage, and style of decor). Her three dimensions of physical surroundings are more specific than Kotler's (1973) visual dimensions, and Baker et al.'s (1994, 1992) dimensions of store environment. Following on from their studies, Wakefield and Blodgett (1996, 1994) argued that Bitner's (1992) dimension of 'ambient conditions' (i.e. intangible physical surroundings) is difficult to control in leisure services. As a result, Wakefield and Blodgett (1994) adapted Bitner's servicescapes model and categorised the dimensions of physical surroundings as 'spatial layout', 'functionality', and 'aesthetics'. Wakefield and Blodgett (1996) also developed five dimensions of servicescapes (i.e. physical surroundings) to investigate the effect of physical surroundings on consumers' behavioural intentions in leisure service settings. These dimensions include: 'layout accessibility', 'facility aesthetics', 'seating comfort', 'electronic equipment and displays', and 'cleanliness'. However, in Wakefield and Blodgett's (1999) study, the dimensions of 'cleanliness' and 'comfort' were included with the dimension of 'ambience' in the construct of tangibles.

More recently, an adapted approach for conceptualising the dimension of physical surroundings has been developed by Turley and Milliman (2000). This

approach adds to Bitner's (1992) servicescape dimension or Wakefield and Blodgett's (1999, 1996, 1994) dimension of physical surroundings as it provides additional physical surroundings. Turley and Milliman (2000) constructed five dimensions for atmosphere and included 'external', 'general interior', 'layout and design', 'point-of-purchase and decoration' and 'human'. Physical surroundings such as lawns and gardens, placement of equipment, and height of building, which had not been included in the previous studies (e.g. Wakefield & Blodgett 1996, 1994; Bitner 1992), were included in their dimensions of atmosphere. Hoffman and Turley (2002) identified four dimensions of atmosphere, which were adapted from Turley and Milliman (2000). Their four atmosphere dimensions included 'general exterior', 'general interior', 'layout and design', and 'point-of-purchase and decoration'. The items of these four dimensions of atmosphere are very similar to the items used in Turley and Milliman's study.

Mayer and Johnson (2003) developed a scale to explore the elements of casino atmospherics. The data were collected from a large Las Vegas Strip hotel/casino. In their results seven valid factors were extracted from 24 atmospheric items. They included 'décor and colour', 'floor layout', 'theme', 'employee uniforms', 'ceiling height', and 'noise level'. They found that 'floor layout' and 'theme' were the two most important casino atmospherics for consumers; other elements were not significant. In a follow-up study, Johnson et al. (2004) re-examined Mayer and Johnson's (2003) scale of casino atmospherics from a casino in Blackhawk, Colorado, which had no hotel rooms. Five atmospheric factors were extracted from 16 atmospheric items. These atmospheric factors included 'theme and décor', 'noise level', 'ceiling height', 'floor layout', and 'employee uniforms'. Four of the factors ('noise level', 'ceiling height', 'floor layout', and 'employee uniforms') were identified from Mayer and Johnson's study.

The literature reviewed in this section has shown that there has been a trend towards making the dimensions of physical surroundings more specific, moving from Kotler's (1973) four visual dimensions to Johnson et al.'s (2004) five dimensions of casino atmosphere. However, the literature to date has paid no attention to exploring the measurement of the level of newness of physical

surroundings. This lack of attention may be because the dimensions of newness of physical surroundings are required to be based on two justifications of physical surroundings: renewable and visible. Additionally, the 'tangible type of physical surroundings' should also be able to be perceived visually because other physical surroundings such as music, odour, and temperature are very difficult to control in leisure services (Wakefield & Blodgett 1996, 1994). Wakefield and Blodgett (1996) argued that the ambient (e.g. music and odour) dimension of Bitner's (1992) dimensions of physical surroundings (i.e. servicescape) are difficult to control in some leisure services such as sport stadiums, cinemas, theme or amusement parks, and other outdoor service settings. For example, consumers can hear new pop music anywhere outside a theme park, but a new roller coaster can be unique to a theme park. It would be difficult to find the same roller coaster in the segmented market of theme parks. Therefore, Wakefield and Blodgett (1996) suggested that 'built environments' such as the dimension of 'spatial layout and functionality' (e.g. layout, equipment, and furnishing), and the dimension of 'sign, symbols and artefacts' (e.g. signage, uniform, and style of decoration) of Bitner's servicescape dimensions are more appropriate for use in constructing the dimensions of physical surroundings in leisure services. Consequently, based on the two justifications of physical surroundings and Wakefield and Blodgett's (1996) suggestion, the items used for generating the dimensions of physical surroundings such as music, odour, crowding, and comfort cannot be used as specific physical surroundings for developing the dimensions of newness of physical surroundings. The dimension of newness of physical surroundings has not been throughtly explored in the current literature. Research focusing on contracting the dimensions of the level of newness of physical surroundings will be able to provide a better understanding of the level of newness of the specific physical surroundings perceived by consumers, particularly, in leisure services.

In summary, this section reviewed a number of marketing studies to try to identify sources for constructing the dimensions of newness of physical surroundings. However, little information was available on this topic in the current marketing literature.

2.5 Assessment of the Level of Newness of Physical Surroundings

Sherman et al. (1997) suggested that 'atmospheric changes or additions would be well worth the effort if they positively influenced consumers' emotions and stimulated purchasing behaviour, such as buying and spending more' (p.374). In addition, Laaksonen (1993) concluded that changed physical surroundings often change consumer purchase behaviour. Similarly, some studies (Hightower et al. 2002; Zeithaml & Bitner 2000; Pine & Gilmore 1999) have also suggested that the level of newness of physical surroundings is able to refresh consumer experience and improve marketing performance in leisure service firms (Hightower et al 2002; Pine & Gilmore 1999). However, these suggestions have not been empirically explored in the current literature, particularly in services marketing.

As the perception of the level of newness of physical surroundings can improve service firms' marketing performance, the method of measuring the perception of the level of newness of physical surroundings can be very important to service providers or managers for helping them to enhance their marketing performance. However, (1) the method of measuring the specific renewed physical surroundings, and (2) the method of comparing visitors' last experience and present experience to evaluate the level of newness of physical surroundings have been little explored in the current literature. Firstly, in terms of the lack of understanding about the method of measuring the specific renewed physical surroundings, services marketing researchers have paid little attention to exploring the method of measuring the specific physical surroundings, which have been renewed. Although environmental psychologists Grossbart et al. (1975) did measure environmental newness with semantic differential type questionnaires (e.g. old and new), the specific surroundings (e.g. new painting, and new layout) were not identified. Secondly, the method of measuring the level of newness of physical surroundings by comparing last experience with present experience of consumers has not been explored in the current literature. Most marketing researchers (e.g. Johnson et al. 2004; Mayer & Johnson 2003; Hightower et al. 2002; Yoo et al. 1998; Baker et al. 1994) measured the

perception of specific physical surroundings based on the present experience of consumers, but the level of newness of the operationalised physical surroundings by comparing consumers' last perception with their present perception has been little explored.

Two studies (Whitehead et al. 1984; Holahan & Saegert 1973), reviewed in **Section 2.3** of this chapter, indicated that redesigned or remodelled psychiatric wards enhanced patients' mood and behaviour. Those two studies utilised a more specific method to operationalise the perception of the level of newness of physical surroundings. Holahan and Saegert (1973) used a large-scale refurbishment of a psychiatric hospital admissions ward (remodeled ward), comparing it to another ward that was not renewed (control ward). Two groups of patients (N = 25 on each groups, N = 50 in total) were selected for this study. The remodelling of the ward involved bringing in new furniture, repainting, and creating different types of space compared to the control ward. Similarly, Whitehead et al. (1984) operationalised two types of wards: original and redesigned. Both original and redesigned wards contained thirty beds. The features of the redesigned ward included: the breaking up of long institutional corridors, flexibility of use to group and day room areas, accentuation of functional use, colour, graphics, and 'subdivision of dormitories'. However, as the perception of the level of newness of physical surroundings was operationalised by comparing two different groups of patients, neither Holahan and Saegert's nor Whitehead et al.'s studies compared a respondent's last perception with their present perception.

The method used in Whitehead et al.'s (1984) and Holahan and Saegert's (1973) studies generated the perception of the level of newness without comparing the respondents' last experience with their present experience. Based on this type of experimental design, respondents would be unable to identify a certain level of newness of physical surroundings, particularly the group used for perceiving the remodelled or redesigned ward. This limitation was not identified by Whitehead et al. or by Holahan and Saegert even though the respondents would have given the level of the feeling of what they perceived from the remodelled or redesigned physical surroundings without knowing what the original or controlled physical

surroundings looked like. In other words, patients would have perceived the ward as a new ward no matter whether it was the remodelled ward or the control ward, because they had no prior experience of seeing these two types of ward. Therefore a new methodology, which uses the method of 'experience comparison' to generate the perception of the level of newness of physical surroundings, will be required for providing more accurate information to service managers or providers to assist in planning their marketing strategies, such as differentiation strategy.

In summary, various methods used for assessing the level of newness of physical surroundings are still under development. There is little information available in the current literature about comparing consumers' last experience and present experience to assess the level of newness of specific physical surroundings.

2.6 Environmental Psychology Models in Service Marketing

The studies explored the effect of the perception of physical surroundings on consumers are mostly based on environmental psychology. There are many models that have been adapted for exploring the effect of physical surroundings on consumers in service marketing such as the Behavioural Perspective Model (BPM) (e.g. Soriano, Foxall & Pearson 2002; Foxall & Greenley 2000, 1999, 1998), Mehrabian and Russell's (1974) Stimulus-Organism-Response (S-O-R) model (e.g. Gilboa & Rafaeli 2003; Sherman et al. 1997; Donovan et al. 1994; Donovan & Rossiter 1982; Mehrabian & Russell 1974), Baker's store environment model (e.g. Baker et al. 2002; Baker et al. 1994; Baker et al. 1992), and Bitner's servicescape model (e.g. El Sayed, Farrag & Belk 2003; Turley & Milliman 2000; Wakefield & Blodgett; 1996, 1994; Bitner 1992). The Behavioural Perspective Model conceptualised how environmental and situational factors can influence consumer choice, while Mehrabian and Russell's S-O-R model, Baker's store environment model, and Bitner's servicescape model are the three significant models which can be used for exploring the effect of physical surroundings on consumer behaviour (see **Table 2.1** on **page 29**).

Table 2.1 The major environmental psychology models in services marketing

Categories	References	Sample	Design	Independent Variables	Dependent Variables	Times Cited in Databases
Mehrabian and Russell's S-O-R Model	Donovan & Rossiter (1982)	30 graduate business students	Descriptive study	Pleasure Arousal Dominance Information rate	Behaviour (approach-avoidance) Intentions	104 hits in Business Source Complete
	Donovan et al. (1994)	60 females (Age 18-35)	Field study	Pleasure Arousal	Unplanned time Unplanned purchases	50 hits in Business Source Complete
Baker's Store Environment Model	Baker et al. (1992)	147 undergraduate students	2 x 2 factorial design	Ambient cues Social cues	Pleasure Arousal Willing to buy	41 hits in Business Source Complete
	Baker et al. (1994)	297 undergraduate student	2 x 2 x 2 factorial design	Ambient factor Design factor Social factor	Merchandise quality Service quality Store image	42 hits in Business Source Complete
Bitner's Servicescape Model	Bitner (1992)	None	Conceptual Development	Ambient conditions Space/function, Sign, symbols, and artifacts	Employee responses Consumer responses Behaviour (approach-avoidance)	54 hits in Business Source Complete

**Source:* Literature review

2.6.1 Mehrabian and Russell's S-O-R Model

In terms of their S-O-R model, Mehrabian and Russell (1974) reported that an individual's behaviour responses (i.e. approach or avoidance) in an environmental setting are directly affected by environmental stimulus, the individual's initial emotional states (i.e. pleasure, arousal, dominance, PAD scale), and the individual's personality traits. Approach behaviour includes all positive behaviours that might be directed at the environment, whereas avoidance behaviour is exemplified by a desire to leave an environment. Therefore, using Mehrabian and Russell's (1974) results as a basis, the effect of environmental stimuli on consumer behaviours has been significantly extended to service marketing research.

A number of studies have extended Mehrabian and Russell's research by adding new theoretical findings. Donovan et al. (1994) and Donovan and Rossiter (1982) suggested that environmental stimuli affect the emotional state of consumers in ways of which they may not be fully aware, but which can affect approach or avoidance behaviour. Some researchers (e.g. Donovan et al. 1994; Donovan & Rossiter 1982) have suggested that the dominance dimension of the PAD scale should be removed because the effect of physical surroundings has little effect on the dominance dimension. Sherman et al. (1997) also found that consumers' emotions (pleasure and arousal) and purchase behaviour (e.g. the spending of money and time) may be determined by the physical surroundings (social, image, design, and ambience). Sherman et al. (1997) found that the design factor (e.g. large-small, roomy-cramped, and colour-drab) had a positive effect on pleasure and a negative effect on arousal. The ambience factor had a positive effect on arousal but it did not affect pleasure. Both pleasure and arousal positively affected purchase behaviour. These three studies all utilised a semantic-differential scale (e.g. Large-Small) but this type of scale is unable to provide what specific physical surroundings affect the emotions and behaviour of consumers (Baker et al. 1992).

2.6.2 Baker's Store Environment Model

In terms of Baker's store environment model some studies (Baker et al. 1994; Baker et al. 1992) have argued that Mehrabian and Russell's (1974) model is limited in classifying the specific physical surroundings. Baker et al. (1992) investigated the effect of retail store environment on respondents' emotional states (i.e. pleasure and arousal), and therefore, on their willingness to buy. The results indicated that the higher the image of ambient cues (lighting, and music) and social cues (number/friendliness of staff), the greater the level of pleasure and arousal experienced by the respondent. The greater the level of emotional state also reinforced the respondents' willingness to buy. Therefore, in a subsequent study, Baker et al. (1994) examined the effect of specific store environments on consumers' perception of merchandise quality, service quality, and store image (e.g. clean and attractive) using a Likert type scale. They reported that the 'ambient' (e.g. music) dimension and the 'social' (e.g. staff uniform and number of staff) dimension provided cues for the consumer's perception of merchandise and service quality, whereas the 'design' (e.g. colour scheme, and store facility) dimension did not do so. They also found that the relationships between store environments and store image are mediated by the merchandise quality and service quality for consumers. However, as the effect of the 'design' dimension is not supported in Baker et al.'s (1994) study, they suggested that 'although design changes in a real store are expensive to make and are subject to a particular retailer's needs, other methodology may prove helpful in looking at the effects of alternative design elements' (p.336). This avenue for future research has been suggested by a number of researchers (e.g. Hightower et al. 2002; Zeithaml & Bitner 2000; Pine & Gilmore 1999).

2.6.3 Bitner's Servicescape Model

Bitner (1992) conceptualised the servicescape (i.e. physical surroundings) model based on the model used in Mehrabian and Russell's (1974) study. She explained that a servicescape is important because it can influence consumers'

and employees' cognitive, emotional and psychological states, and therefore, their approach or avoidance behaviour (Bitner 1992). Some follow-up studies (e.g. Hightower et al. 2002; Wakefield & Blodgett 1999, 1996, 1994) of the servicescape focused on the effect of physical surroundings on consumer behaviour and gave empirical support to Bitner's servicescape model. Wakefield and Blodgett (1994) found that 'layout accessibility', 'facility aesthetic', and 'electronic equipment and displays' affect leisure spectators' perception of quality, and satisfaction and repatronage intentions. Wakefield and Blodgett (1996) argued that the servicescape model has been little explored in high 'facility-driven' leisure services such as sport stadiums and casinos. They published two studies (Wakefield & Blodgett 1999, 1996) focusing on the effect of physical surroundings on leisure participators, which they called 'sportscapes', based on Bitner's typology of servicescape.

In 1996, Wakefield and Blodgett utilised Bitner's (1992) servicescape to explore the effect of physical surroundings on consumers' behavioural intentions in football and baseball stadiums and casinos. Wakefield and Blodgett's (1996) results showed that the perception of servicescape quality affects leisure consumers' (football spectators, baseball spectators, casino consumers) satisfaction with servicescape, and therefore, their repurchase intentions and desire to stay. A similar finding from Wakefield and Blodgett's (1999) follow-up study from hockey spectators, movie theatre consumers and family recreation centre consumers indicated that tangible services affect spectators' feeling of excitement, and the feeling of excitement affects their repurchase intentions. In addition to Wakefield and Blodgett's studies, Hightower et al. (2002) also found that sport spectators' perceptions of servicescape directly affect their positive affect and the perceived service quality. Sport spectators' positive affect also directly affects their behavioural intentions. Therefore, the three studies reviewed above (Hightower et al. 2002; Wakefield & Blodgett 1999, 1996) empirically support Bitner's (1992) servicescape model.

As Mehrabian and Russell's S-O-R model, Baker's store environment model, and Bitner's servicescape model are theoretically based on the S-O-R paradigm of environmental psychology, the differences between these three models can be reviewed by comparing stimulus variables, organism variables, and response variables.

In terms of the stimulus variables, the several studies (e.g. Gilboa & Rafaeli 2003; Sherman et al. 1997; Donovan et al. 1994; Donovan & Rossiter 1982; Mehrabian & Russell 1974) utilised Mehrabian and Russell's (1974) S-O-R model to explore the effect of physical surroundings but were limited in providing specific information about which specific environmental stimuli affect consumer behaviour. These studies mostly utilised a semantic-differential scale such as 'large-small' and 'new-old' to investigate consumers' perception of physical surroundings, but this semantic-differential scale can provide few details on what specific physical surroundings influence consumer behaviour. In contrast to Mehrabian and Russell's S-O-R model, Baker et al. (1994) and Baker et al. (1992) argued that Mehrabian and Russell's S-O-R model has limitations for measuring the specific physical surroundings. They therefore composed a model called Baker's store environment model, which utilised three dimensions of physical surroundings (i.e. ambience, design, and social) as the stimulus variables. These three dimensions of physical surroundings improved the measurement of the specific physical surroundings. However, in Bitner's (1992) servicescape model some subsequent studies (e.g. Hightower et al. 2002; Turley & Milliman 2000; Wakefield & Blodgett 1996, 1994) provided more specific physical surroundings than the other two models offered to explore the perception of physical surroundings in detail. These specific physical surroundings provided better information to service managers or providers about how the type of physical surroundings affects consumers' behaviour, in particular, in leisure services.

In terms of the organism variables, Mehrabian and Russell's (1974) PAD (i.e. pleasure, arousal, and dominance factors) scale is frequently conceptualised in this type of study as the organism variable which Mehrabian and Russell's S-O-R

model used (Sherman et al. 1997; Donovan et al. 1994; Donovan & Rossiter 1982). Even though it has been suggested that the dominance dimension should be removed from the PAD scale for improving the ability of the pleasure and arousal factors (Donovan et al. 1994; Donovan & Rossiter 1982), these two emotional states can be limited in their application to some service industries. For example, the PAD scale may be limited for measuring consumers' feeling of the level of usefulness of the physical surroundings, the level of need match on the physical surroundings and the level of speed on service in high 'facility-driven' leisure services. The organism variable in the S-O-R paradigm could be replaced by other concepts such as the perception of service quality (Baker et al. 1994) or 'shopping value' (utilitarian value and hedonic value) (Stoel et al. 2004) for a better understanding of the S-O-R paradigm of environmental psychology in particular in a specific service industry. Therefore, the 'dominance' of PAD scale did not be conceptualised in this study because of the lack of managerial implications.

In addition, Baker's store environment model successfully utilised Mehrabian and Russell's (1974) pleasure and arousal dimensions in 1992 (Baker et al. 1992) to explore the effect of the perception of ambient and social cues on respondents' (undergraduate students) emotional states (pleasure and arousal) and, therefore, on their willingness to buy. In their follow-up study, Baker et al. (1994) utilised merchandise and service quality dimensions to be the organism variables in the Baker's store environment model. These two dimensions provided more specific outcomes than Mehrabian and Russell's PAD scale in relation to the quality of services such as 'high quality' and 'expect to treat well'.

In contrast to Mehrabian and Russell's PAD scale and Baker's merchandise and service quality dimensions, Bitner's (1992) servicescape model offers various concepts including cognitive (e.g. beliefs, categorisation, and symbolic meaning), emotions (e.g. mood, attitude, and satisfaction), and psychological (e.g. pain, comfort, movement, and physical fit). Therefore, the effects of servicescape on consumers are mostly conceptualised with emotional states such

as satisfaction (Wakefield & Blodgett 1996), and positive affect (Hightower et al. 2002), but both satisfaction and positive affect were focusing on overall satisfaction. Other more specific information about what specific emotional states are affected by the perception of the level of newness of physical surroundings has not been explored. However, the organism variable utilised in this study will be neither Mehrabian and Russell's PAD scale nor overall satisfaction, because of their limited measurement with the perception of the level of newness of physical surroundings. This study has utilised the concept of 'shopping values' to be the organism variable of the S-O-R paradigm. The reason why the concept of 'shopping values' has been utilised in this study was be discussed in **Section 2.6** of this chapter.

In terms of the response variables, the current literature has utilised various concepts across these three models. For example, Sherman et al. (1997) utilised purchase behaviour in Mehrabian and Russell's (1974) S-O-R model. Baker et al. (1994) utilised store image in Baker's (1992) store environment model. In Bitners' (1992) servicescape model, Wakefield and Blodgett (1996) conceptualised repatronage intentions and the desire to stay as the response variables of their model, whereas Hightower et al. (2002) utilised behavioural intention in their model. However, the actual repurchase behaviour has been little applied in the current literature. Mehrabian and Russell's S-O-R model is a classical theory of environmental psychology for exploring the effect of physical surroundings on an individual's emotional states and behavioural response. The limitation of measuring the specific physical surroundings has been addressed by current researchers (e.g. Baker et al. 1994; Baker et al. 1992). In contrast to Mehrabian and Russell's S-O-R model, Baker's store environment model and Bitner's servicescape model constitute a theoretical upgrade from Mehrabian and Russell's S-O-R model for the effect of the perception of physical surroundings (i.e. physical surroundings such as lighting, furniture, and décor) on the behaviour of the consumer. However, Bitner's (1992) servicescape model provides more empirical evidence (i.e. Wakefield & Blodgett 1996, 1994) to support 'facility-driven' or 'hedonic-driven' leisure services than does Baker's

store environment model. Therefore, Bitner's servicescape model can be an appropriate prototype for exploring the perception of the level of newness of physical surroundings, repurchase shopping values, and actual repurchase behaviour. A discussion of consumers' actual purchase behaviour will be addressed in **Section 2.7** of this chapter.

In summary, based on the above comparison between Mehrabian and Russell's S-O-R model, Baker's store environment model and Bitner's servicescape model, the S-O-R paradigm has been significantly adapted in the current literature for exploring the effect of the perception of physical surroundings on consumers. However, the current literature has paid little attention to conceptualising the perception of the level of newness of physical surroundings, repurchase 'shopping values', and actual repurchase behaviours of consumers. Hence, research that explores the effect of the level of newness of physical surroundings on consumers' repurchase behaviour could offer an advanced understanding of the application in relation to the S-O-R paradigm of environmental psychology.

2.7 Shopping Values

Physical surroundings are frequently conceptualised in conjunction with the affects of consumers in consumption experience. A substantial number of researchers (Stoel et al. 2004; Yoo et al. 1998; Sherman et al. 1997; Babin & Darden 1996; Bloch, Ridgway & Dawson 1994; Donovan et al 1994; Donovan & Rossiter 1982; Mehrabian & Russell 1974) have demonstrated that a consumer's perception of physical surroundings is an antecedent of affects, and affects influence the consumer's behavioural responses (i.e. the S-O-R paradigm of environmental psychology). Therefore, as emotional states are frequently conceptualised as an organism variable in the S-O-R paradigm, there are many concepts of affects that have been empirically explored as playing a mediating role in the relationship between the perception of physical surroundings and

behavioural responses. Those concepts include Mehrabian and Russell's (1974) PAD scale (Sherman et al. 1997; Donovan et al 1994; Donovan & Rossiter 1982; Mehrabian & Russell 1974), perception of merchandise and service quality (Baker et al. 1994), positive and negative emotion (Yoo et al. 1998), satisfaction (Wakefield & Blodgett 1996), excitement (Wakefield & Blodgett 1999), positive affect (Hightower et al. 2002), and shopping values (Stoel et al. 2004). One of the most significant concepts in the study of consumption experience in relation to the theme park visitors' perception of physical surroundings to this study is 'shopping values' (Griffin et al. 2000). This is because the experience of leisure consumers is mostly based on the utilitarian and hedonic perspective (de Fontenelle & Zinkhan 1993; Ahtola 1985; Hischman & Holbrook 1982; Holbrook & Hischman 1982), in particular the hedonic perspective (Wakefield & Blodgett 1999, 1996, 1994; Babin et al. 1994). However, little is known of the relationship between the perception of the level of newness of physical surroundings and both the utilitarian value and the hedonic value, particularly in theme park service. Therefore, research that pays attention to this research gap can offer a greater understanding of the concept of shopping values.

Shopping values can be categorised into utilitarian value and hedonic values (Babin et al. 1994). The consumer's utilitarian value 'might depend on whether the particular consumption need stimulating the shopping trip was accomplished. Often, this means a product is purchased in a deliberate and efficient manner' (p.646). In contrast, the consumer's hedonic value is more subjective and personal than the perception of utilitarian value (Babin et al. 1994). The consumer's hedonic value reflects the responses of finding value in the 'shopping experience itself aside from any task-related (i.e. utilitarian) motives' (Babin & Attaway 2000, p.92). Specifically, Griffin et al. (2000) explained that 'the utilitarian value is realised when the needed product(s) is obtained, and it is increased as the product is obtained more effortlessly. The hedonic value results from the immediate personal gratification derived from the emotional benefits and entertainment provided by consumption experience' (p.35). Similarly, Babin et al. (1994) pointed out that the shopping experience could include both the

consumers' utilitarian and hedonic values. Therefore, as a theme park is a high 'facility-driven' (Turley & Fugate 1992) and high hedonic-demanded leisure service (Wakefield & Blodgett 1999, 1996, 1994), developing the concept of 'shopping values' with the concept of the level of newness of physical surroundings can improve the understanding of the effect of the level of newness of physical surroundings on 'shopping values', particularly in theme parks.

Studies to date of both utilitarian value and hedonic value use two perspectives. *The first perspective* concentrates on the utilitarian value and hedonic value of products or services (e.g. Voss, Spangenberg & Grohmann 2003; Dhar & Wertenbroch 2000; Spangenberg, Voss & Crowley 1997; Mano & Oliver 1993; Batra & Ahtola 1990). *The second perspective* focuses on the utilitarian and hedonic shopping values which the consumer experiences while consuming (Babin & Attaway 2000; Babin & Darden 1995; Babin et al. 1994; Bloch, Sherrell & Ridgway 1986; Bloch & Bruce 1984; Bloch & Richins 1983; Bellenger & Korgaokar 1980). The utilitarian and hedonic shopping values of a consumer are based on his/her attitude toward the products or services they are consuming. In contrast to a consumer's attitude toward products or services, the utilitarian and hedonic shopping values of products or services depend on the consumer's response to the products or services used or encountered. The two perspectives of 'shopping values' are reviewed next in this section.

2.7.1 Utilitarian Value and Hedonic Value of Products or Services

For the utilitarian value and hedonic value of products or services generally the utilitarian value of products is primarily goal oriented, functional and instrumental, whereas the hedonic value of products is relevant to the affective, experiential, symbolic, and aesthetic domain and it evokes fun, pleasure, and excitement (Dhar & Wertenbroch 2000; Strahilevitz & Myers 1998; Mano & Oliver 1993; Batra & Ahtola 1990; Hirschman & Holbrook 1982; Holbrook & Hirschman 1982). Several researchers (Voss et al. 2003; Spangenberg et al. 1997; Mano & Oliver 1993; Batra & Ahtola 1990) found that the consumer's

behaviour differed according to the level of hedonic and utilitarian value of a product. This perspective represents a segmentation approach of using utilitarian value and hedonic value to classify the products or service by consumers.

In order to construct a scale to measure the perspective of utilitarian and hedonic shopping values of products or services, Batra and Ahtola (1990) successfully developed a hedonic/utilitarian scale to measure the utilitarian and hedonic sources of consumer attitude. They found that consumer attitudes towards brands and behaviours have two distinct factors, utilitarian and hedonic. The level of consumers' overall attitudes, which derive from these two factors, is different in various product categories. Hence, a visitor's level of utilitarian and hedonic shopping values can be different in different type of services. For example, a consumer's level of shopping value when buying a pair of shoes is different from visiting a theme park. Similarly, Mano and Oliver (1993) examined the dimensionality and structure of three consumption experiences: product evaluation (i.e. utilitarian and hedonic judgment), product-elicited affect (i.e. pleasure and arousal), and product satisfaction. They found that product evaluation could be viewed as causally antecedent to product-elicited affect and product satisfaction.

In order to provide greater generality for the scale of shopping values Spangenberg et al. (1997) constructed a hedonic/utilitarian scale for determining consumers' evaluations of advertising in relation to products and services. In their follow-up study, Voss et al. (2003) retested Spangenberg et al.'s hedonic/utilitarian scale using various product categories and different brands within categories. This resulted in a ten-item hedonic/utilitarian scale. In this scale the items utilised for measuring hedonic value included 'fun', 'exciting', 'delightful', 'thrilling', and 'enjoyable'. In contrast, the items utilised for measuring utilitarian value included 'effective', 'helpful, functional', 'necessary', and 'practical'. Voss et al. tested their hedonic/utilitarian scale on consumer attitudes toward brand and repurchase intention. They found that the utilitarian dimension and hedonic dimension performed better when they were

measured separately (i.e. as two constructs) than when they were measured together (i.e. as one construct). Voss et al. (2003) and Spangenberg et al. (1997) found that their hedonic/utilitarian scale is very useful in distinguishing the level of consumer attitude toward product categories and brands within categories.

The above literature (Voss et al. 2003; Spangenberg et al. 1997; Mano & Oliver 1993; Batra & Ahtola 1990) offered a segmentation approach to classify the products and service by consumers. This perspective, however, differs from the consumer perspective of shopping values.

2.7.2 Utilitarian and Hedonic Shopping Values of Consumers

In terms of the perspective of utilitarian and hedonic shopping values of consumers, Bellenger and Korgaokar (1980) found that consumers exhibit either economic (utilitarian) or recreational (hedonic) shopping behaviour. They argued that, for some, because the sole purpose of shopping is saving money, these consumers develop a negative attitude towards shopping. Conversely, those who enjoy shopping as leisure, feel positive emotions such as pleasure, and develop a positive attitude toward shopping. Therefore, in terms of the scale development of the perspective of utilitarian and hedonic shopping values of consumers, Babin and Darden (1994) established a scale of hedonic and utilitarian shopping values based on the different attitudes of consumers towards shopping. By evaluating the intrinsic shopping values of consumers researchers found differences in consumer attitudes toward shopping. This study provides the source for the scale of shopping values based on the perspective of utilitarian and hedonic shopping values of consumers.

Babin and Darden (1995) constructed a model for the effect of the retail environment on shopping behaviour, which linked shopping emotion (i.e. PAD), resource expenditure, and shopping values (utilitarian and hedonic shopping values). They classified shopping mall consumers as 'state-oriented' or 'action-oriented' to moderate the relationship between shopping emotions and resource

expenditure and the relationship between shopping emotions and shopping values. 'State-oriented' consumers 'process a cognitive structure guided more by social and emotional elements of some internal or external state' and 'action-oriented' consumers 'generally form relatively firm intentions prior to starting an activity and are less susceptible to competing contextually derived action tendencies that interfere with original intentions' (Barbin & Darden 1995, p.50). The findings indicated that (1) for the state-oriented consumer the physical environment of the shopping mall exerted a greater influence on the relationship between shopping emotions and resource expenditure than it exerted for action-oriented consumers; and (2) The relationship between shopping emotions and shopping values is not significant for either state-oriented consumers or action-oriented consumers. In addition, the findings suggested that, when resource expenditure increased, there was a more negative effect on utilitarian shopping value among action-oriented consumers than among state-oriented consumers. Moreover, the findings also confirmed Donovan et al.'s (1994) suggestion that the dominance variable, which was used in Mehrabian and Russell's (1974) S-O-R model, was unimportant in retail environment measurement. Similarly, Chan and Tai (2001) tested Barbin and Darden's (1995) model in a large hypermarket in Hong Kong. They compare their findings with Barbin and Darden's findings and found that Chinese consumers were more influenced by the relationship between shopping emotions and resource expenditure than Western consumers were. They also have similar findings to those of Barbin and Darden (1995) which showed that, when resource expenditure increased, there was a more negative effect on the utilitarian and hedonic shopping values of action-oriented consumers than on those of state-oriented consumers.

In addition to their 1995 study, Babin and Darden (1996) found that in-store mood influenced consumer spending and consumer satisfaction with the store. Low excitement levels may lead to lower re-patronage. Unless a store has a distinct product offering or pricing strategy, retailers must distinguish their store by building on the relationship between store atmosphere and the emotional states of consumers. Babin and Attaway (2000) also replaced Mehrabian and

Russell's (1974) PAD scale by using the positive (e.g. excited, happy, and satisfied) and negative (e.g. bold, sleepy, and disgusted) affects of atmosphere. They investigated the impact of positive and negative affects associated with the atmosphere of the shopping mall on consumer share. The results showed that the positive affect of the atmosphere has a positive relationship on both utilitarian and hedonic shopping values.

These five studies (Chan & Tai 2001; Babin & Attaway 2000; Babin & Darden 1996, 1994; Bellenger & Korgaokar 1980) provided the theoretical elements to this study for using the perspective of utilitarian and hedonic shopping values of consumers to explore the effect of the level of newness of physical surroundings on repurchase shopping values of theme park visitors. However, empirical evidence for the effect of physical surroundings on shopping values of consumers has been little explored, particularly in high 'facility-driven' leisure services until a recent study by Stoel et al. (2004) investigated consumer attitudes of shopping mall attributes (e.g. cleanliness, spaciousness, and atmosphere) in conjunction with consumer resource expenditure (i.e. time and money spent), shopping values and re-patronage intention. Stoel et al. (2004) utilised Babin and Darden's (1994) utilitarian and hedonic shopping value scale to measure consumer attitudes to shopping mall attributes and resource expenditure. Re-patronage intention was the dependent variable in their model. The findings indicated that consumer attitudes to mall attributes had a positive influence on time spent, but there was no relationship with money spent. Neither time spent nor money spent had any relationship with either utilitarian or hedonic shopping values. However, consumer attitudes to mall attributes had a positive influence on both utilitarian and hedonic shopping values. Moreover, there was no direct relationship between consumer attitude to mall attributes and re-patronage intention. The findings also showed that a causal relationship between consumer attitudes to mall attributes on re-patronage intention was mediated by hedonic shopping values, but utilitarian shopping did not exist as a mediator in this causal relationship. However, this study did not focus on the level of newness of physical surroundings.

In summary, this section reviewed the concept of 'shopping values' and theoretically divided the concept of 'shopping values' into utilitarian value and hedonic values. Two perspectives of shopping values (product and service perspective and consumer perspective) were reviewed.

2.8 Repurchase Behaviour

Repurchase behaviour is frequently viewed as one of the perspectives of consumer loyalty (Pritchard et al. 1992; Tellis 1988; Gitelson & Crompton 1984; Newman & Werbel 1973). The behavioural perspective and the attitudinal perspective are the two major perspectives of customer loyalty (Yi & La 2004; Baker & Crompton 2000). The *Behavioural* perspective refers to a customer's behaviour regarding repeat purchases and indicates a preference for a brand/service over time (Bowen & Shoemaker 1998). The *Attitudinal* perspective refers to a customer's strength of affection, such as the intention to repurchase and the willingness to recommend (Baker & Crompton 2000; Getty & Thompson 1994). These early studies operationalised consumer loyalty as repeat purchasing frequency or relative volume of same brand purchasing over time, and their main focus was on brand loyalty (Pritchard et al. 1992; Tellis 1988; Gitelson & Crompton 1984; Newman & Werbel 1973).

In contrast to the behavioural perspective, the attitudinal perspective has attracted a number of researchers. Day (1969) suggested that in order to be 'truly loyal', customers must hold a favourable attitude toward the brand in addition to repeatedly purchasing it, and both covert attitude (such as word-of-mouth communications) and overt behaviour (such as repurchase intentions) need to be considered in a loyalty definition. Assael (1995) reported on a range of studies, which supported the view that intentions could be used to predict overt behaviour. Similarly, Jones and Sasser (1995) claimed that although recency, frequency, amount, retention and longevity can be measured to show actual

repurchasing behaviour, sometimes customers could send the wrong message. For example, the willingness of the customer to pay the annual fees is the prime measurement of retention in the credit-card industry; however the results showed that although customers were willing to pay the fee to ensure the availability of the credit card, often they did not use it. Additionally, Oliver (1997) sought to tap into the psychological meaning of loyalty and defined it as 'a deep commitment to rebuy or repatronise a preferred product/service consistently in the future' (p. 392). Consequently, Soderlund, Vilgon and Gunnarsson (2001) viewed behavioural intentions as one facet of 'attitude', together with feelings of attachment and affection.

Serving a new consumer is less efficient than serving a repeat consumer (Widing et al. 2003). In other words, maintaining a customer is more profitable than winning a new one (Kandampully & Suhartanto 2000; Bowen & Shoemaker 1998; Berry & Parasuraman 1991). This is due to the fact that when customers are lost, new consumers must be captured to replace them, and replacing them is expensive because advertising, promotion, sales, and uncovering expenses are high (Athanassopoulos, Gounaris & Stathkopoulos 2001; Fornell & Wernerfelt 1987). However, the operationalisation of actual repurchase behaviour in association with the perception of the level of newness of physical surroundings has been little explored, in particular in leisure services. Opperman (1999) stated that the measurement of repurchase intention in the leisure and recreation service context is particularly difficult. Compared with the most frequently consumed products, which have generally been investigated in the brand loyalty studies, the purchase of a tourism or recreation product is a less frequent purchase. Therefore, knowing leisure consumers' actual repurchase behaviour can be more important than knowing their repurchase intention. Similarly, Mittal and Kamakura (2001) suggested that researchers ought to measure repurchase behaviour by going one step further, using behaviour and not just intention as the criterion variable. However, the measurement of actual repurchase behaviour has not been studied in association with the perception of the level of newness of

physical surroundings, in particular in the S-O-R paradigm of environmental psychology.

Mittal (2004) claimed that there was little understanding of the relationship between consumer satisfaction and repurchase behaviour when trying to capture accurate differential thresholds from consumers in order to predict repurchase behaviour. He indicated that 'most companies track the overall satisfaction of their customer, but very few know how customer satisfaction affects repurchase behaviour (not just intention), sales, or actual word-of-mouth behaviour' (p.38). However, previous literature has frequently concentrated on the relationship between consumer satisfaction and repurchase, but this relationship has been challenged by more current marketing literature because consumer satisfaction is not the only factor that affects repurchase (Yi & La 2004; Stewart 1997; Jones & Sasser 1995). Alternative relationships, which are based on the perception of physical surroundings models (e.g. Mehrabian & Russell's S-O-R model, Baker's store environment model or Bitner's servicescape model), include examples such as shopping values affect repatronage intention (Stoel et al. 2004), positive value effect on behaviour intention (Hightower et al. 2002), and perceived quality and excitement positively affect repatronage intention (Wakefield & Blodgett 1999). However, actual repurchase behaviour has been little explored in the perception of physical surroundings models.

In summary, repurchase behaviour has been little explored in relation to the level of newness of physical surroundings. The literature to date mainly explores the effect of environmental stimuli on purchase behaviour by utilising consumers' present experience, but does not use the measurement of consumers' last experience. As noted in **Section 1.2** of **Chapter 1**, serving a repeat consumer is more efficient than serving a new consumer. Studying the concept of actual repurchase behaviour in conjunction with the concept of the level of newness of physical surroundings can offer better information about the level of newness of physical surrounding for service managers or providers to enhance their profit margin and improve their consumers' loyalty.

2.9 Summary

This chapter reviewed the literature to date in the light of the four research gaps formulated in **Section 1.2** of **Chapter 1**. Theoretical, methodological, and substantial issues based on the major concepts of this study, namely, the perception of the level of newness of physical surroundings, repurchase shopping values, and actual repurchase behaviour were examined. **Section 2.2** reviewed the literature relating to 'perception of the level of newness'; **Section 2.3**, the 'perception of physical surroundings in service'; **Section 2.4**, 'the dimensions of physical surroundings'; and **Section 2.5** 'the method of assessment of the level of newness of physical surroundings'. These sections provided background information for **research gaps (1)** and **(2)**, in particular, an advanced understanding of the methodology required for exploring the concept of the perception of the level of newness of physical surroundings. **Section 2.6** reviewed 'the environmental psychology models in service marketing', **Section 2.7** reviewed 'shopping values, and **Section 2.8** reviewed 'repurchase behaviour' in order to provide the theoretical background for **research gaps (3)** and **(4)**. These sections have provided the foundation for exploring the effect of the perception of the level of newness of physical surrounding on repurchase shopping values and actual repurchase behaviour. The conceptual framework of this study and a series of hypotheses for exploring the two research aims will be developed in the next chapter.

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CHAPTER 3.

CONCEPTUAL DEVELOPMENT

3.1 Introduction

This chapter develops the concepts and hypotheses to explore the two research aims identified in **Section 1.3** of **Chapter 1**. In this chapter the definition of a theme park and the definition of newness of physical surroundings were provided, as **Research Aim 1** aim's to investigate the perception by theme park visitors of the level of newness of physical surroundings. The dimensions of newness of physical surroundings were conceptually formulated for this investigation. Based on **Research Aim 2**, a conceptual framework was constructed to provide a picture of the effect of the level of newness of physical surroundings on repurchase utilitarian and hedonic shopping values and actual repurchase behaviour. A series of hypotheses, based on the conceptual framework, was also developed.

3.2 Definition of Theme Park

Milman (1988) defined an amusement park as an entertainment facility featuring rides, games, food and sometimes shows. Crossley et al. (2001) also indicated the characteristics and limitations of amusement parks stating that 'amusement parks are small and moderately sized parks that serve a metropolitan or regional market. These parks feature traditional thrill rides, carnival midways, and some entertainment. Most amusement parks lack a theme orientation for architecture,

rides and entertainment' (p.489). The Australian Bureau of Statistics (2002) defined amusement and theme parks as having four characteristics: '(1) operating on a commercial basis, (2) permanently based at a fixed site, (3) with multiple rides and attractions, and (4) with over 50,000 attendees for the year.' This definition is limited as it excludes a number of small parks such as single water slide parks, and travelling side shows (Australian Bureau of Statistics 2002). However, the above definitions of amusement park and theme park suggest that both size and theme-orientation are important characteristics of a theme park. Theme parks tend to be larger and have a greater variety of facilities than amusement parks (Crossley et al. 2001). Most of the services in a theme park, such as architecture and rides, should strongly link with the selected theme. This is clear in Roddewing et al.'s (1986) definition. They defined a theme park as an amusement park that:

> ...tries to create the atmosphere of another place or time. Architecture and landscaping, costumed personnel, rides, food service, and merchandise are all carefully coordinated to fit the theme selected for the theme park. Theme parks differ from amusement parks by putting a stronger emphasis on cleanliness and a wholesome family atmosphere (p. 87).

Similarly, Kau (1994) defined a theme park as an amusement park in which the rides, attractions, shows and buildings revolve around a central theme or group of themes. Both amusement park and theme park generally provide amusement rides, shows, games, food and beverage, and merchandising. Theme parks may be classified according to their themes, such as entertainment, historical, and safari park; their size; their geographical location and capacity; or the resources used to create the theme (Milman 1988). Moreover, Scheurer (2004, p.228) explained that a theme park aims to create an atmosphere usually focused on one 'dominant theme'. This 'dominant theme' orients a theme park's architecture, landscaping, costumed personnel, and different facilities for entertainment, distraction, recreation, or physical activity, such as rides, shows, food service and merchandise. From these above definitions of a theme park, it is clear that the physical surroundings play a significant role as the interface between visitors and theme park managers and providers. Studies of theme park visitors' perceptions

of the level of newness of physical surroundings could therefore provide a better understanding for theme park managers or providers of how the level of newness of physical surroundings affects their visitors' purchase behaviour.

3.3 Definition of Newness of Physical Surroundings

The perception of the level of newness of physical surroundings is decided by repeat visitors. There are two requirements for the measurement of this perception. Firstly, the newness of physical surroundings has to be renewable. Secondly, the newness of physical surroundings has to be visible. The newness of physical surroundings, which cannot be visually perceived and unable to be renewed, is difficult to be termed as newness of physical surroundings.

Based on these two requirements, newness of physical surroundings is then defined as:

Newness of physical surroundings is the renewable and visible services that can be clearly perceived by repeat consumers.

This definition is applied across this study.

Based on the two requirement of newness of physical surrounding a method of assessing the level of newness of physical surrounding must involve a comparison of the respondent's previous experience with their present experience of the perception of physical surroundings in the same physical surroundings. Repeat visitors, who have currently made at least two visits to the theme park that they are visiting, are required for an assessment of the perceived level of newness of physical surroundings. First-time visitors are not including in this study because their previous visiting experience are not gained from the same park they are visiting at the time data collected. Those first-time visitors' previous experience can be difficultly to be controlled for newness measurement.

3.4 Measures of Newness of Physical Surroundings

In **Section 2.4** of **Chapter 2**, the dimensions of physical surroundings were reviewed. Wakefield and Blodgett (1996, 1994) argued that the ambient dimension (e.g. music, odour, and noise) of Bitner's (1992) servicescape dimensions is difficult to control in some leisure services such as sport stadiums, cinemas, theme or amusement parks, and other outdoor service setting. Those leisure services can be categorised as 'facility-driven' leisure services (Turley & Fugate 1992). Wakefield and Blodgett suggested that 'built environments' such as 'spatial layout and functionality' (e.g. layout, equipment, and furnishings), and 'signs, symbols, and artefacts' (e.g. signage, and style of décor) are easier to control in those 'facility-driven' leisure services such as theme parks and cruise lines. Consequently, this study is conducted on the physical surroundings of theme parks, Wakefield and Blodgett's (1996, 1994) suggestion will be adapted to this study. The 'built environments' of theme parks will be used for developing the dimensions and items of newness of physical surroundings.

Based on the two requirements of newness of physical surroundings, the dimensions of newness of physical surroundings will be modified from Turley and Milliman's (2000) five atmospheric dimensions, and Hoffman and Turley's (2002) four atmospheric dimensions. These four atmospheric dimensions (i.e. 'general exterior', 'general interior', 'layout and design', and 'point-of-purchase and decoration') can be used as a basis for the dimensions of newness of physical surroundings. However, Turley and Milliman's (2000) five atmospheric dimensions will be the sources of the dimensions of newness of physical surroundings since Hoffman and Turley's (2002) four atmospheric dimensions were upgraded from Turley and Milliman's five atmospheric dimensions. Turley and Milliman (2000) composed a number of items on each of the five atmospheric dimensions. These items can be significantly utilised for generating the items of newness of physical surroundings. Therefore, three dimensions of newness of physical surroundings can be conceptually developed. (1) 'aesthetic

design'; (2) 'spatial layout and functionality'; and (3) 'point-of-purchase'. Each of these three dimensions is discussed in 3.4.1, 3.4.2 and 3.4.3.

3.4.1 Aesthetic Design

Hoffman and Turley's (2002) 'general exterior' dimension and 'general interior' dimension were combined with the decoration from their 'point-of-purchase and decoration' dimension to be a single dimension called 'aesthetic design' because the items designed in Turley and Milliman's (2000) dimensions (i.e. the 'general exterior', and 'general interior') were similar to aesthetic design. In addition, as aesthetic design is important to service firms, consumers can be attracted if the aesthetic design of a service firm is impressive (Yoo et al. 1998). Baker et al. (1994) indicated that aesthetic elements included architecture, colour, materials, and style. Hence, the style of décor should be categorised into the dimension of 'aesthetic design'. Examples of the specific physical surroundings of the dimension of 'aesthetic design' are: entrance design (Turley & Milliman 2000), height of building (Turley & Milliman 2000), size of building (Turley & Milliman 2000), colour of building (Johnson et al. 2004; Turley & Milliman 2000), lawns and gardens (Turley & Milliman 2000), style of architecture (Turley & Milliman 2000; LeBlanc & Nguyen 1996), interior flooring and carpeting (Johnson et al. 2004; Turley & Milliman 2000; Wakefield & Blodgett 1996), colour schemes (Baker et al. 2002; Turley & Milliman 2000; Wakefield & Baker 1998; Crowley 1993; Bellizzi & Hite 1992; Bellizzi et al. 1983), lighting (Summers & Hebert 2001; Turley & Milliman 2000; Wakefield & Baker 1998; Yoo et al. 1998; Baker et al. 1994), aisle design (Turley & Milliman 2000; Wakefield & Blodgett 1994), building composition (Turley & Milliman 2000; Wakefield & Blodgett 1994), equipment (Wakefield & Blodgett 1996; Bitner 1992), and style of decoration (Johnson et al. 2004; Turley & Milliman 2000; Wakefield & Baker 1998; Bitner 1992). The aforementioned specific physical surroundings will be utilised for exploring the effect of the perception of newness of 'aesthetic design' on consumers. The items adapted to constitute the dimension of 'aesthetic design' are presented in **Appendix A**.

3.4.2 Spatial Layout and Functionality

The 'functionality' dimension is suggested as a component of the 'built environment' by Wakefield and Blodgett (1996, 1994), and combining 'functionality' with 'spatial layout' is identified as a dimension called 'spatial layout and functionality' (Wakefield & Blodgett 1994). This is because 'spatial layout and functionality' has covered the layout design, and also because the 'design' of the 'layout, design and functionality' could be confused with the dimension of 'aesthetic design'. Examples of the specific physical surroundings in the dimension of 'layout, design and functionality' include space design, placement of facilities, and function of equipment.

Spatial layout and functionality are visible physical surroundings (Baker et al. 1994). For example, Turley and Milliman (2000) conceptually developed 'space design and allocation', 'placement of merchandise', 'furniture', and 'employee uniform' to constitute the dimension of 'layout and design'. Other examples of the specific physical surroundings of the dimension 'spatial layout and functionality' include: space design (Wakefield & Blodgett 1999, 1996, 1994), placement of facilities (Wakefield & Blodgett 1996), design of staff uniform (Johnson et al. 2004), furniture (Bitner 1992), function of equipment (Bitner 1992), exhibits (Fior et al. 2000), displays (Fior et al. 2000), and Logo design (Janiszewski & Meyvis 2001). This study adapted the items used in those studies to generate the items of the dimension of 'spatial layout and functionality' for measuring the perception of the level of newness of 'spatial layout and functionality'. The items adapted to be the dimension of 'spatial layout and functionality' are presented in **Appendix A**.

3.4.3 Point-of-Purchase

Turley and Milliman (2000) categorised the dimension of 'point-of-purchase and decoration' to include the specific physical surroundings such as 'product displays', 'point-of-purchase displays', 'posters', 'signs', 'cards', 'teletext

message', and 'wall decoration'. However, décor of theme parks can be categorised into the dimension of 'aesthetic design'. The style of decoration is supposed to be aesthetically driven with regard to the theme of the theme park. Therefore, the dimension of 'point-of-purchase, and decoration' was renamed simply as 'point-of-purchase'. Examples of the specific physical surroundings in the dimension of 'point-of-purchase' include: 'style of reception area' (Wakefield & Blodgett 1994), opening hours (Parasuraman, Zeithaml & Berry 1991), price displays (Turley & Milliman 2000), staff uniform (Johnson et al. 2004; Turley & Milliman 2000), and signage (Turley & Milliman 2000; Turley & Shannon 2000; Bitner 1992; Wilkinson, Mason & Psksoy 1982).

In summary, this section conceptually developed the dimensions of newness of physical surroundings. These three dimensions are: (1) 'aesthetic design', (2) 'spatial layout and functionality', and (3) 'point-of-purchase'. Examples of these dimensions were also given. These three dimensions of newness of physical surroundings were explored in this study with theme park visitors' repurchase shopping values and actual repurchase behaviour.

3.5 Measure of Repurchase Shopping Values

As discussed in **Section 2.7** of **Chapter 2**, both utilitarian value and hedonic value have been applied successfully to either the product and service perspective or the consumer perspective. It has also been suggested that utilitarian and hedonic shopping values should be separately measured (Spangenberg et al. 1997). In reviewing the relevant literature to date, it is evident that the product/service perspective on shopping values uses utilitarian and hedonic values to segment products (e.g. comparing video games with tooth brushes), or services (e.g. comparing theme park services with bank services) (e.g. Voss et al. 2003; Spangenberg et al. 1997; Mano & Oliver 1993; Batra & Ahtola 1990), whereas the consumer perspective mainly investigates consumers' utilitarian and hedonic feelings (e.g. practical and happy) toward shopping (Stoel

et al. 2004; Chan & Tai 2001; Babin & Attaway 2000; Babin & Darden 1995; 1994). Both the products and services perspective and the consumer perspective are operationalised differently. However, as the aims of this study are not focused on service segementation, this study adapted the consumer perspective of shopping values to explore the concept of repurchase shopping values.

In addition, as repeat theme park visitors' last experience of a visit to the theme park were compared with their experience of the present visit in this study the concept of repurchase shopping values was also conceptualised by the experience comparison method. However, consumers' repurchase 'shopping values' have not been studied for either repurchase utilitarian value or repurchase hedonic value. Therefore, the measurement of repurchase shopping values adapted from the previous studies, but the difference between repeat visitors' last feeling of shopping values and present feeling about shopping values was compared in this study. Examples of the items of the repurchase utilitarian shopping values adapted from previous studies include: practicality (Voss et al. 2003), need match (Babin & Attaway 2000; Mano & Oliver 1993), necessity (Voss et al. 2003), convenience (Babin & Attaway 2000), and service speed (Babin & Attaway 2000). In contrast to the repurchase utilitarian shopping value, the examples of the items of the repurchase hedonic shopping values adapted from previous studies include: pleasure (Sherman et al. 1997; Mehrabian & Russell 1974), attractiveness (Baker et al. 2002; Yoo et al. 1998; Bellizzi et al. 1983; Dickson & Albaum 1977), excitement (Voss et al. 2003; Yoo et al. 1998; Mano & Oliver 1993), interest (Mano & Oliver 1993), fun (Voss et al. 2003; Hopkinson & Pujari 1999), and satisfaction (Yoo et al. 1998; Mano & Oliver 1993). Based on previous studies (e.g. Stoel et al. 2004; Babin & Attaway 2000), both the repurchase utilitarian value and repurchase hedonic value were operationalised separately and they will be conceptualised in the form of a single dimension. The items adapted to constitute the repurchase utilitarian value and repurchase hedonic value are presented in **Appendix A**.

3.6 Measure of Actual Repurchase Behaviour

As discussed in **Section 2.8** of **Chapter 2**, the concept of repurchase behaviour is more related to leisure services because the repetition of the purchase of leisure service is not as frequent as for general service. Consumers' repurchase intention can be difficult to predict unless their actual repurchase behaviour is measured. Adapted from Sherman et al.'s (1997) measure of purchase behaviour to be the item of the measure of actual repurchase behaviour, visitors' last visit and their present visit need to be compared. Sherman et al. utilised money spent, liking, number of items purchased, and time spent to measure shoppers' actual purchase behaviour. The measuring items of the actual repurchase behaviour developed are presented in **Appendix A**.

3.7 Hypotheses Development

The S-O-R paradigm of environmental psychology is treated as the prototype for developing the conceptual framework of this study. As noted in **Section 2.6** of **Chapter 2** the S-O-R paradigm of environmental psychology has been applied successfully in current service marketing literature (such as Sherman et al. 1997 and Baker et al. 1994; 1992) to explore the effect of physical surroundings on purchase behaviour of consumer. In addition, as noted in **Section 3.5** of this chapter utilitarian and hedonic shopping values are measured separately in the current literature (e.g. Stoel et al. 2004; Voss et al 2003; Babin & Attway 2000; Babin & Darden 1994). Each of value conceptualised as single dimension. These two measures (i.e. utilitarian and hedonic) also had been designed and tested empirically with physical surroundings in current service marketing literature (e.g. Stoel et al. 2004). Based on S-O-R models designed in studies (such as Sherman et al. 1997 and Baker et al. 1994; 1992) and Stoel et al.'s (2004) study. The conceptual framework of this study is developed and presented in **Figure 2.1** below.

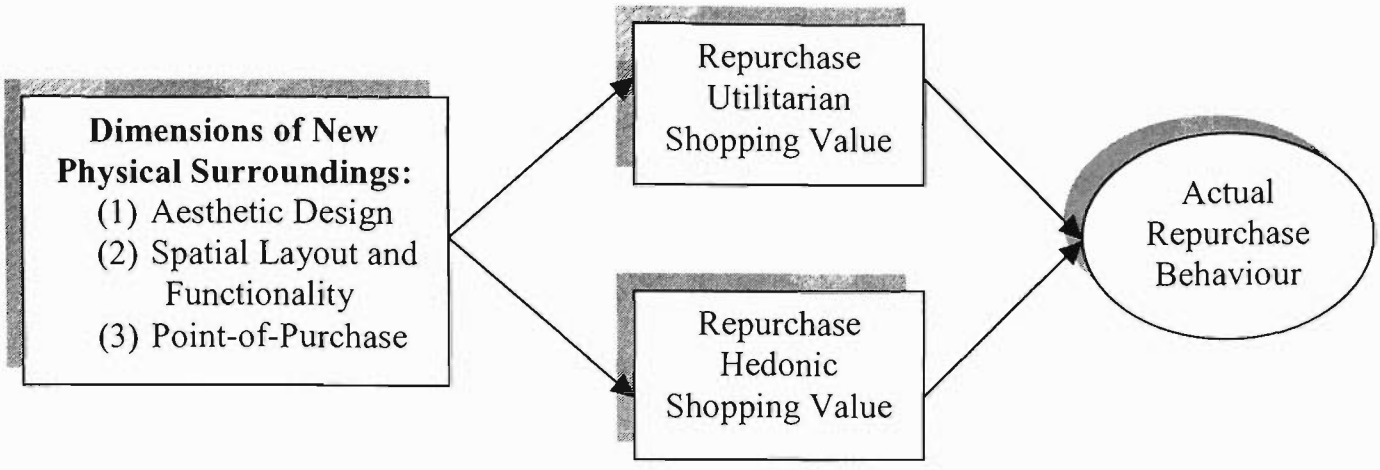

Figure 2.1 The conceptual framework[†]

[†] Source: Developed by the author.

The perception of the level of newness of physical surroundings (i.e. 'aesthetic design', 'spatial layout and functionality', and 'point-of-purchase') is the *stimulus*, repurchase utilitarian and hedonic shopping values are the *organism*, and the actual repurchase behaviour is the *response*. The conceptual development of the relationships among these concepts is formulated in the presented hypotheses in **Sections 3.7.1** and **3.7.2**.

3.7.1 The Effect of the Perception of the level of newness of physical surroundings on Repurchase Shopping Values

As reviewed in **Section 2.3** of **Chapter 2**, previous studies found that physical surroundings positively affect consumers' emotional states such as perception of merchandise and service quality (Baker et al. 1994), positive and negative emotion (Yoo et al. 1998), satisfaction (Wakefield & Blodgett 1996), excitement (Wakefield & Blodgett 1999), positive affect (Hightower et al. 2002), and shopping values (Stoel et al. 2004). Surprisingly, most of previous studies (e.g. Stoel et al. 2004; Wakefield & Boldgett 1999, 1996) focused on the effect of physical surroundings on affective responses. There is only Stoel et al.'s (2004) study explored the effect of physical surroundings on utilitarian shopping value.

Therefore, in order to explore the relationship between the perceptions of the level of newness of physical surroundings and repurchase shopping values, the level of the relationship between the perception of physical surrounding and shopping values which was explored by these previous studies (e.g. Stoel et al. 2004; Wakefield & Boldgett 1999, 1996) has been adapted. The examples of these previous studies are highlighted in **Tables 3.1** and **3.2** below.

Table 3.1 Examples of the effect of physical surroundings on utilitarian shopping value

Dimensions	References	Findings
Aesthetic Design	Stoel et al. (2004)	- Shoppers' satisfaction with mall attributes (e.g. décor, atmosphere) positively affects their perception of utilitarian value (e.g. needs and wants).
Spatial Layout and Functionality	Stoel et al. (2004)	- Shoppers' satisfaction with mall attributes (e.g. spaciousness of mall and variety of specialty stores in the mall) positively affects their perception of utilitarian value (e.g. needs and wants).
Point-of-Purchase	Stoel et al. (2004)	- Shoppers' satisfaction with mall attributes (e.g. number of department stores in the mall and courtesy of mall personal) positively affects their perception of utilitarian value (e.g. needs and wants).

* *Source*: Literature review

Table 3.2 Examples of the effect of physical surroundings on hedonic shopping value

Dimensions	References	Findings
Aesthetic Design	Wakefield & Blodgett (1996)	- The greater the level of attraction of 'facility aesthetic' (such as paint colour, colour scheme, architecture, decoration, and facility) perceived by consumers of leisure services (i.e. football, baseball and casino), the greater the level of quality (such as level of expectation) of physical surroundings perceived by them. Therefore, the greater the level of quality of physical surroundings perceived by consumers of leisure services, the greater the level of satisfaction they had.
	Wakefield & Baker (1998)	- The greater the level of attraction of architectural design of a shopping mall, the greater the level of excitement the shoppers perceived.
	Yoo et al. (1998)	- The store facility (such as general facilities and store size) positively affect shoppers' level of positive emotion (such as pleasure, attraction, excitement, contentment, pride, and satisfaction).
	Wakefield & Blodgett (1999)	- Modern-looking equipment, interior design, exterior appearance of hockey pitch, cinema, and recreation centre positively affect the level of excitement perceived by leisure consumers such as hockey spectators, cinema consumers, and recreation centre consumers.
	Stoel et al. (2004)	- Shoppers' satisfaction with mall attributes (e.g. décor, atmosphere) positively affects their perception of hedonic value (e.g. enjoyment and excitement).
Spatial Layout and Functionality	Wakefield & Baker (1998)	- The easier the layout of a shopping mall, the greater the level of excitement and desire to stay the shopper had.
	Wakefield & Blodgett (1999)	- The layout of hockey pitch and cinema positively affected the level of excitement perceived by hockey spectators and cinema consumers.
	Stoel et al. (2004)	- Shoppers' satisfaction with mall attributes (e.g. spaciousness of mall and variety of specialty stores in the mall) positively affects their perception of hedonic value (e.g. enjoyment and excitement).
Point-of-Purchase	Wakefield & Blodgett (1996)	- The electronic equipment/displays positively affect football spectators and casino consumers' satisfaction level with the facility.
	Wakefield & Blodgett (1999)	- Employees of cinema who appear neat positively affect the level of excitement perceived by cinema consumers.
	Stoel et al. (2004)	- Shoppers' satisfaction with mall attributes (e.g. number of department stores in the mall and courtesy of mall personal) positively affects their perception of hedonic value (e.g. enjoyment and excitement).

**Source*: Literature review

However, based on the examples presented in **Table 3.1** and **Table 3.2**, it may be postulated that the perception of the level of newness of physical surroundings may affect repurchase shopping values, both utilitarian and hedonic. Therefore, **Hypotheses 1**, **1a** and **1b** are:

Hypothesis 1: Perceptions of the level of newness of physical surroundings positively affect theme park visitors' repurchase shopping values.

Hypothesis 1a: **Perceptions of the level of newness of physical surroundings positively affect theme park visitors' repurchase utilitarian values.**

Hypothesis 1b: **Perceptions of the level of newness of physical surroundings positively affect theme park visitors' repurchase hedonic values.**

If **Hypotheses 1a** and **1b** are supported this means that if theme park visitors perceive that the level of newness of physical surroundings (i.e. 'aesthetic design', 'spatial layout and functionality', and 'point-of-purchase') is greater than on their last visit, their level of repurchase shopping values (i.e. utilitarian shopping value and hedonic shopping value) will be higher than on their last visit as well.

3.7.2 The Mediating Role of Repurchase Shopping Values in the Relationship between the level of newness of physical surroundings and Actual Repurchase Behaviour

The relationship between the perception of physical surroundings and purchase behaviours can be mediated by consumption emotions. Some researchers (e.g. Sherman et al. 1997; Donovan et al. 1994; Mehrabian & Russell 1974) have indicated that an individual's purchase behaviour can be influenced by his or her

perceptions of the service environment and mediated by emotional states. Bitner (1992) pointed out that 'perceptions of servicescape lead to certain emotions, beliefs, and physical sensations which in turn influence behaviour. Behaviours are thus mediated by a person's internal response to the place' (p.62). In the S-O-R paradigm of environmental psychology marketing researchers have frequently applied emotional types of concepts such as the Organism construct (i.e. mediator) between the perception of physical surroundings (the Stimulus), and consumer behaviour (the Response). These emotional type of constructs include the PAD scale (Sherman et al. 1997; Donovan et al. 1994; Donovan & Rossiter 1982; Mehrabian & Russell 1974), merchandise and service quality (Baker et al. 1994), positive and negative emotion (Yoo et al. 1998), satisfaction (Wakefield & Blodgett 1996), excitement (Wakefield & Blodgett 1999), positive affect (Hightower et al. 2002), and shopping values (Stoel et al. 2004). However, these constructs are little conceptualised with the perception of the level of newness of physical surroundings. Therefore, as discussed in **Section 2.7** of **Chapter 2**, shopping values can provide more specific information by measuring consumers' utilitarian value and hedonic value, particularly in leisure services. Hence, consumers' shopping values will be adapted as an organism construct in the S-O-R paradigm of environmental psychology.

As noted in **Section 2.7** of **Chapter 2**, the mediating role of repurchase shopping values has not been studied in the relationship between the perception of the level of newness of physical surroundings and actual repurchase behaviour. There are few previous studies (Stoel et al. 2004; Hightower et al. 2002; Babin & Attaway 2000; Wakefield & Blodgett 1999; Wakefield & Baker 1998; Yoo et al. 1998; Sherman et al. 1997) that can be adapted for exploring this research gap. Sherman et al. (1997) found that pleasure and arousal responses mediated the relationship between consumers' perception of store environment (e.g. design and ambience), and purchase behaviour (e.g. money spent and time spent). Wakefield and Baker (1998) found that excitement positively mediated the relationship between shoppers' perception of mall physical surroundings and repatronage intention. A similar finding also can be seen in Wakefield and

Blodgett's (1999) study. They found that excitement positively mediated the relationship between consumers' perception of tangible services and their repurchase intention in hockey pitches, cinemas, and recreation centres. Yoo et al. (1998) found that positive emotion positively mediated the relationship between shoppers' perception of store facilities and store attitude. Babin and Attaway (2000) found that utilitarian and hedonic shopping values positively mediated the relationship between shoppers' atmospheric affects and consumer share (e.g. money spending, and preference for the shop). Hightower et al. (2002) found that positive affect (e.g. happiness, enjoy, satisfaction, and delight) positively mediated the relationship between sport spectators' perception of servicescape and behaviour intention. Additionally, Stoel et al. (2004) found that hedonic shopping value mediated the relationship between consumers' satisfaction of mall attributes (e.g. cleanliness, spaciousness, and atmosphere) and re-patronage intention. However, these previous studies have paid little attention to exploring the mediating role of repurchase shopping values in the relationship between the perception of the level of newness of physical surroundings and actual repurchase behaviour. In order to fill in this research gap, therefore, **Hypotheses 2a and 2b** are:

Hypothesis 2: Perception of the level of newness of physical surroundings positively affects actual repurchase behaviour via theme park visitors' repurchase shopping values (i.e. utilitarian shopping value and hedonic shopping value).

***Hypothesis* 2a: Perception of the level of newness of physical surroundings positively affects actual repurchase behaviour via theme park visitors' repurchase utilitarian shopping value.**

***Hypothesis* 2b: Perception of the level of newness of physical surroundings positively affects actual repurchase behaviour via theme park visitors' repurchase hedonic shopping value.**

If **Hypotheses 2a** and **2b** are proven, this means that if theme park visitors perceive the level of newness of physical surroundings (i.e. 'aesthetic design', 'spatial layout and functionality', and 'point-of-purchase') to be greater on their present visit than on their last visit, their level of actual repurchase behaviour (e.g. money spent and time spent) will be high because of a higher level of repurchase shopping values. Therefore, the mediating role of repurchase shopping values between the perception of the level of newness of physical surroundings and actual repurchase behaviour will exist if **Hypotheses 2a** and **2b** are significantly supported.

3.8 Summary

This chapter has defined the meaning of newness of physical surroundings and composed the dimensions of newness of physical surroundings to investigate the level of newness of physical surroundings. The conceptual framework of this study has been developed based on Bitner's (1992) servicescape model for testing the effect of the level of newness of physical surroundings on repurchase shopping values (**Hypotheses 1a** and **1b**). In addition, the mediating role of theme park visitors' repurchase shopping values in the relationship between the perception of the level of newness of physical surroundings and actual repurchase behaviour has also been hypothesised (**Hypotheses 2a** and **2b**). Therefore, the conceptual framework of this study will be empirically provided if **Hypotheses 2a** and **2b** are significantly supported. In terms of the S-O-R paradigm of environmental psychology, newness of physical surroundings act as *stimulus* (i.e. 'aesthetic design', 'spatial layout and functionality', and 'point-of-purchase'), repurchase shopping values (i.e. repurchase utilitarian shopping value and repurchase hedonic shopping value) are *organisms*, and actual repurchase behaviour is the *response*. The abstract level of theory building was first reviewed in **Chapters 1** and **2**. In this chapter the conceptual framework for exploring the two research aims was developed. The next stage is the empirical

level of theory building, so the methodological strategies for testing the hypotheses composed will be presented in **Chapter 4**.

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CHAPTER 4.

RESEARCH METHODOLOGY

4.1 Introduction

In order to describe the methodology for exploring the four hypotheses presented in **Chapter 3**, there are five sections in this chapter. The section on the justification of the research design (**Section 4.2**) will describe the type of research utilised in this study. **Section 4.3** will address the process of questionnaire development for exploring the four hypotheses. The section on data collection procedures (**Section 4.4**) will illustrate the sampling design and sample size. The section on data analysis procedures (**Section 4.5**) will specify the method of analysis utilised for testing these two hypotheses. In addition, **Section 4.6** will provide a profile of respondents.

4.2 Justification of the Type of Research Design

Quantitative research method is considered appropriate when studying relationships between several variables (Neuman 2006; Cavana, Delahaye & Sekaran 2001; Larsson 1993), and several marketing studies (e.g. Stoel et al. 2004; Hightower et al. 2002; Wakefield & Blodgett 1999, 1996; Yoo et al. 1998; Sherman et al. 1997) used quantitative research method to test the effect of physical surroundings on consumers' purchase behaviour. By adding the concept of newness into this study quantitative research method can be used to test the effect of newness of physical surroundings on theme park visitors actual repurchase behaviour. This method is adequate to test the research hypotheses

and to achieve the research aims. **Sections 4.3**, **4.4** and **4.5** discussed the development of the research questionnaire, sampling design, and statistical methods design in detail

4.3 Questionnaire Development

The aim of this section is to explain the development of the questionnaire for testing the hypotheses. The methodology suggested by Churchill (1979) was adapted for this study. Churchill suggested eight stages for questionnaire development for developing better measures: (1) 'specify domain contrast', (2) 'generate sample of items/questions', (3) 'collect data', (4) 'purify measure', (5) 'collect data', (6) 'assess reliability', (7) 'assess validity', and (8) 'develop norms' (p.66). **Table 4.1** demonstrates the process of questionnaire development following Churchill's eight stages. The process of questionnaire development for this study is shown in **Table 4.1**.

Table 4.1 The process of questionnaire development for this study

Churchill's (1979) Eight Stages	The Processes of Questionnaire Development of this Study	Addressed in Chapters of this Study
1. Specify domain contrast	Formulation for the research gaps Literature review Conceptual development	Chapter 1, 2 & 3
2. Generate sample of items/questions	Item/question generation Scale identification Language translation Expert consultation	Chapter 4
3. Collect data	Pre-tests and pilot survey Item refinement and combination	Chapter 4
4. Purify measure		
5. Collect data	Main survey	Chapter 4, 5 & 6
6. Assess reliability		
7. Assess validity		
8. Develop norms		

**Source:* Churchill (1979)

Therefore, as describe in **Table 4.1** the questionnaire of this study were developed based on the following steps: (1) item/question generation, (2) scale identification, (3) language translation, (4) expert consultation, (5) pre-tests and pilot survey and (6) items refinement and combination.

4.3.1 Item Generation

Two important considerations arose while generating the questions for the questionnaire. The first consideration was that the questions of a questionnaire should be related to the research questions/aims (Veal 1997). In designing a questionnaire Veal suggested that the wording of a questionnaire should avoid: 'jargon, ambiguity, leading questions, and ask only one question at a time. All of this is defined in order to reduce item non-response and response error' (p. 162). Wording is the critical issue of item/question generation, to phrase materials in words that respondents can clearly and easily understand (Malhotra 2003). As the questions of the dimensions were conceptualised from the previous literature in **Chapter 3**, the first consideration has been achieved.

The second consideration of item generation was that the measures should involve multiple questions. The use of a single question for a measure leads to difficulties in capturing the meaning of a measure as well as in assessing reliability (Danaher & Haddrell 1996), whereas multiple items can be more representative, stable and are more likely to relate to the measure (Neuman 2006; Nunnally & Bernstein 1994; Spector 1992). In addition, if a number of questions are utilised for a measure, it is more likely that the researcher is taking measurements from a wider range of the content of a conceptual definition in terms of what it is that the respondents are evaluating, so that it is less likely that there will be systematic error (Neuman 2006). Therefore, in this study multiple items for each of the measures (i.e. newness of physical surroundings, repurchase utilitarian and hedonic shopping values, and actual repurchase behaviour) were generated.

The definition of newness of physical surroundings was addressed in **Section 3.3** of **Chapter 3**, and it was stated that newness of physical surroundings are based on two requirements: renewable and visible. The references utilised for developing the items of newness of physical surroundings are categorised in **Appendix A**. Twenty-nine items of newness of physical surroundings were generated. The allocation of these twenty-nine items to each of the three dimensions of newness of physical surroundings was as follows: 'aesthetic design' included thirteen items; 'spatial layout and functionality' included nine items; and 'point-of-purchase' included seven items.

Furthermore, as stated in **Sections 3.4** and **3.5** in **Chapter 3**, for the questions of repurchase shopping values (including utilitarian value and hedonic value), and actual repurchase behaviour: five questions of repurchase utilitarian shopping value, six items of repurchase hedonic shopping value, and four items of actual repurchase behaviour were generated. The questions of repurchase utilitarian and hedonic shopping values were based on the consumer perspective of shopping values, which was to compare theme park visitors' last feelings of the theme park service with their present perception. The questions of repurchase behaviour were based on Sherman et al.'s (1997) items of purchase behaviour. Theme park visitors were asked to compare their past actual purchase behaviour with their present purchase behaviour to generate actual repurchase behaviour.

In addition, it should be noted that, as the pre-tests and pilot survey were conducted in the middle of 2004, the references that were used to generate the items of the variables (i.e. newness of physical surroundings, repurchase shopping value, and actual repurchase behaviour) were all published before the middle of 2004.

4.3.2 Scale Identification

A Likert-type five-point 'newness' scale, which measured the level of newness of physical surroundings from '1 = Completely new' to '5 = Not new at all', was

adapted for measuring the level of newness of physical surroundings. Additionally, another Likert-type five-point scale from '1 = much more than before' to '5 = much less than before' was adapted for measuring consumers' perception of repurchase utilitarian value and hedonic value, and their actual repurchase behaviour.

4.3.3 Expert Consultation

Before starting the pre-tests experts were consulted about the questionnaire. A pool of questions was developed from current literature and then consultations were held with experts. A total of forty-four questions were considered. There were twenty-nine questions for newness of physical surroundings, five questions for repurchase utilitarian shopping value, six questions for repurchase hedonic shopping value, and four questions for actual repurchase behaviours. In this survey, twelve experts were consulted for question construction and editing. These experts included five marketing scholars of leisure services (two English speakers and three Chinese speakers), three doctoral students, two managers from two of the selected theme parks from Taiwan, and two architecture experts. The item editing procedure focused on questionnaire construction and item selection or rejection. One of the academic experts suggested that 'the content of activities' should be added to the dimension of 'spatial layout and functionality' because it is visible and renewable. Hence, 'the content of activities' was incorporated into the questionnaire design.

In order to generate a practical questionnaire two theme park managers were interviewed to refine the questions of the questionnaire, particularly the questions for newness of physical surroundings. These two managers were asked questions relating to question accuracy, terminology, wording, renewal history of the theme park, and visitor characteristics. The first interview was with a theme park general manager. In a one-hour interview he noted that their park would have its physical surroundings enriched in the following years (since 2004) by adding natural themes (such as planting new trees or new lawn). He also indicated that

most of their visitors have low re-visit intentions. The second interview was with a previous manager of a large theme park who had a master's degree in visual communication, and was a senior manager in a resort related to this theme park at the time of the interview. She pointed out that this park renewed its physical surroundings often. In general, low cost refurbishments such as painting and decoration enabled the park to renew its surroundings once or twice a year. Medium cost refurbishments such as shows and displays were renewed once every two years. High cost refurbishment such as rides and facilities were renewed once every four or five years. In addition, she said that the terminology used for the original questions in the questionnaire was recogniable to their consumers. These two interviews were conducted in early May 2004.

4.3.4 Language Translation

As the data were collected in Taiwan (see **Section 4.4** of this chapter for the reasons for this), a Chinese-English translation approach was needed. To confirm the equivalency of the English and Chinese questionnaire the back translation approach was employed. This approach appears frequently in cross-cultural psychology literature, and is perhaps the best-known approach for questionnaire translations (Bagozzi, Wong, Abe & Bergami 2000; Bagozzi, Wong & Yi 1999; Van de Vijver & Leung 1997; Brislin 1980). Back-translation has been compared with the knowledge translation and performance translation approaches (Sinaiko & Brislin 1973). The back-translation approach was suggested as the first choice among these three approaches as it is the least time-consuming and most economical (Hoffman & Hegarty 1993). Therefore, the questionnaire of this study was first prepared in an English version, and then it was translated into Chinese. The Chinese version of the questionnaire was then translated back into English. Two bilingual translators were involved in the back-translation stage from Chinese to English. After this, a third bilingual person was asked to check the equivalency of the Chinese version to the English version. Thus, three academic experts were asked to refine the wording of the

back-translated Chinese version. All the language translation was completed before the launch of the first pre-test.

4.3.5 Pre-tests of the Questionnaire

After the experts evaluated the draft of the questionnaire the next stage for questionnaire development was pre-testing the questionnaire. The pre-testing method has been suggested as essential for questionnaire development (Backstrom & Hursch 1963). Reynolds, Diamantopoulos and Schlegelmilch (1993) also pointed out that 'pre-testing (or pilot testing) is the stage in the development of a questionnaire that determines the potential effectiveness of the questionnaire. The pre-test is conducted prior to the final distribution of the questionnaire to the target population' (p.171). Tull and Hawkins (1990) also suggested that the author(s) of a study should be directly involved with the interviewing at the pre-test stage. This effort would provide a better understanding of the research problems in conjunction with the questionnaire design. Moreover, Roynold et al. (1993) indicated that pre-testing of a questionnaire should be concerned with individual questions and the overall design. The overall design should be given more attention than the individual questions. In particular, the logic or flow of the questionnaire and its overall layout should be pre-tested. However, in their empirical findings, Diamantopolous, Reynold and Schlegelmilch (1994) found that respondents familiar with questionnaire design detected more errors than respondents who were unfamiliar with it. As well, respondents with knowledge of the questionnaire topic detected more errors than respondents without such knowledge. Reynolds and Diamantopoulos (1998) also suggested that, in questionnaire pre-testing, personal survey methods detect more errors than impersonal survey methods (e.g. mail or telephone survey). Therefore, for this study two pre-tests and one pilot survey were employed to assist in the development of the questionnaire. The author of this study participated in all the pre-test and pilot surveys, and the questionnaire was revised in the light of each pre-test survey.

For the first pre-test, two different versions of the scale for measuring the level of newness were found in the literature. The first type of scale (version A) is a Likert-type scale to measure visitor agreement level ('strongly agree' to 'strongly disagree', e.g. Venkatraman 1991; Venkatraman & Price 1990) of the level of newness. The second type of scale (version B) is a Likert-type scale to measure the level of newness ('completely new' to 'not new at all', e.g. Johannessen et al. 2001; Tatikonda & Montoya-Weiss 2001) of the targeted items. In the questionnaire design for this pre-test, both the agreement-type scale (version A) and the newness-type scale (version B) were in turn combined and printed in two different forms (i.e. the form of version A + version B, and the form of version B + version A) on different coloured A3 paper. In order to differentiate these two forms the form of A+B was printed on light yellow paper, while the form of B+A was printed on light blue paper. Each form included both version A and version B. Respondents' were asked which version made it easier for them to judge the level of newness. The author of this study distributed the two different forms of the questionnaire in turn at Janfusun's main exit gate (Janfusun is one of Taiwan's large theme parks - see **Section 4.4**). Owing to limited time and budget, ten respondents were purposively selected for each form and twenty respondents in total were selected for A+B form and B+A form. Twelve usable responses were obtained. The result (nine respondents) indicated that the newness type scale (version B) was easier and clearer than the agreement type scale (version A) for them to judge the level of newness of the physical surroundings of the theme park. In other words, the pre-test showed that the newness type scale (version B) was a better instrument for visitors to judge the level of newness of the physical surroundings than the agreement type scale (version A). Hence, a Likert-type five-point scale of newness (version B) was selected for later surveys of this study.

Had the agreement scale (version A), been used there would have been a bias in the measurement of newness. The agreement style of scale has limitations in measuring completely newness of physical surroundings. For example, in version A an item such as 'The play equipment has been renewed' would be

unable to capture the meaning of 'completely new'. In contrast to version A, the level of newness can be better captured in version B. Therefore, a newness style of scale (from 1 = 'Completely New' to 5 = 'Not New at All') was adapted for this study because it provided better accuracy in newness measurement than an agreement scale (version A).

To refine the questionnaire the second pre-test was conducted at Yamay (one of the largest Taiwanese theme parks - see **Section 4.4**). The data were collected by the author and a doctoral student at the main exit gate, utilising judgment sampling (see **Section 4.3** of this chapter for the sampling design). Thirty usable questionnaires were obtained out of 36 questionnaires in total. Gifts worth 50 cents Australian were distributed while each questionnaire was completed. The purpose of this pre-test was to refine the proposed questionnaire. The respondents were interviewed about their understanding of the items/questions whilst completing the questionnaire. It was found that the ticking style needed to be refined. The ticking style of the second pre-test used five points (1 to 5) in a column, but it did not provide a ticking box or column for each of the levels of newness. This design resulted in some of the respondents not ticking exactly at a single level (i.e. 1 to 5) but part way between levels. Even when the questionnaire mentioned the way to tick a level, some respondents were ticking in the space between two levels of newness (e.g. the space between 2 and 3). This presented a difficulty in judging the accurate level during data input. Hence, tick boxes were used to replace numbers, and the five-point level was presented at the top of each column only. The questionnaire was then ready for a pilot survey to purify the questions.

After the two pre-test stages the questionnaire was refined for a **pilot survey**. Janfusun was selected for this survey. Self-administered questionnaires were distributed at Janfusun's main exit area. Six interviewers (undergraduate students) were hired to collect data with the author of this study on one weekend day in the middle of September 2004. An information form was printed on the first page of the questionnaire to classify the characteristics of the potential

respondents. All four pages of questions were organised and printed on A3 size paper and two sheets were folded to form an A4 size booklet. Judgement sampling was utilised. The author of this study distributed 179 questionnaires at Janfusun and 97 usable questionnaires (54.2%) were received. All of the 97 usable questionnaires were completed by repeat visitors. Gifts worth 50 cents Australian each were purchased from Janfusun and were distributed to each respondent while the questionnaire was being completed.

From the results of the pilot survey, a mean comparison of the twenty-nine questions of newness of physical surroundings was tested among the three 'last visit' groups. This test aimed to check whether the questionnaire was able to measure awareness of different levels of newness of physical surroundings over different lengths of time. Reliability tests of the measures of newness of physical surroundings, utilitarian shopping value, hedonic value, and repurchase behaviour were also evaluated.

A mean comparison of three 'time-gap' groups is presented in **Appendix B**. These groups were classified according to the time gap between a visitor's last visit and their present visit. These three groups were: 1) last visit less than one year ago, 2) last visit between more than one year and less than three years ago, and 3) last visit more than three years ago. **Appendix B** shows different levels of mean for each question in each group of twenty-nine questions. The result of the mean comparison among the three time gap groups indicated that this questionnaire was able to measure the level of newness of physical surroundings. Mostly, visitors whose last visit was more than three years sago perceived a greater level of newness than did the other two groups. Visitors whose last visit was less than one year ago perceived the level of newness to be less new than the other two groups did.

In addition, the reliability and item-to-total correlation indicated that respondents of this pilot survey were able to assess these twenty-nine items of newness of physical surroundings reliably. In theory, it has been suggested that a good

reliability value for the Cronbach's Alpha value should be greater than .70, whereas Cronbach's Alpha value will not be reliable if it is less than .70 (Nunnally 1978). The item-to total correlation should be greater than .50 (Hair et al. 1998). Therefore, the reliability test of the twenty-nine questions of newness of physical surroundings indicated an excellent level of reliability (Cronbach's Alpha = .97, N = 97). The value of item-to-total correlation across these twenty-nine questions also indicated a satisfactory correlation among these questions (range from 61 to 82), which meant that these twenty-nine questions were related to each other at a satisfactory level.

The Cronbach's Alpha values also showed reliability for the other three research variables. The Cronbach's Alpha value for the five items of repurchase utilitarian value was .71 (N = 97). The Cronbach's Alpha value for the six questions of repurchase hedonic value was .82 (N = 97). The Cronbach's Alpha value for the four questions of actual repurchase behaviour was .68 (N = 97).

4.3.6 Question Refinement and Combination

In the two pre-tests and the pilot survey it was found that theme park visitors tended to be in a hurry while filling in the questionnaire. This was because the proposed questionnaire had to be collected at the main exit gate when visitors were completing their visit. In order to avoid the respondent bias of misunderstanding the meaning of the item an attempt was made to avoid long wording and the questions were kept short. This enabled respondents to identify key words of an item or question easily.

Based on the results of the pilot survey a significant refinement made to the questionnaire utilised in the pilot survey was a reduction in the items concerning newness of physical surroundings. These were reduced from twenty-nine questions in the pilot survey to twenty-four questions in the main survey. The main reason for the question combination was the respondents' confusion of the

questions and repeat questions. The reasons for combining these questions are given in **Table 4.2** below.

Table 4.2 Refinement and combination of questions
(Newness of physical surroundings questions)

Original Questions in Pilot Survey	**Combined Questions in Main Survey**	**Reasons for Combination**
1 Style of the reception areas 2 Entrance design	1 Style of entrance design. (in Aesthetic Design dimension)	These two questions were similar.
11 Design of the aisles 13 Space design	10 Layout design. (in Spatial Layout and Functionality dimension)	Layout design could include these two original questions.
14 Equipment (e.g. rides and lockers) 27 Functioning of equipment	12 Play equipment (e. g. roller coaster design and function). (in Spatial Layout and Functionality dimension)	These two original questions confused the respondents. The play equipment was included in these two original questions.
19 Exhibits 20 Display style 26 Content of activities (e.g. shows and films)	17 Displays (e.g. shows, films). (in Spatial Layout and Functionality dimension)	The exhibits and the content of activities could be included in the displays in a theme park. Display style cannot be isolated as the two items are related.

**Source:* Developed by the author

The questions of newness of physical surroundings were reduced from twenty-nine questions to twenty-four questions. Twelve questions were included in the dimension of 'aesthetic design', eight questions included in the dimension of 'spatial layout and functionality', and four questions included in the dimension of 'point-of-purchase'. More details about sources of the questions of physical surroundings are categorised in **Appendix C**.

Two items of repurchase utilitarian shopping value ('Level at which the physical surroundings match my needs is', and 'Level to which the physical surroundings are not necessary is') were also combined, because these two questions were similar in measuring the visitor's need of physical surroundings. The new

combined question was reworded as 'the level at which the physical surroundings match my needs is'.

In addition, in the pilot survey the twenty-nine questions concerning newness of physical surroundings were all organised in a table for the respondents to tick the level of newness. However, an observation from the pilot survey was that this type of questionnaire (i.e. organised with all items in a single table) led the respondents to tend to tick the same level of newness through the table, demonstrating a halo-effect. In addition, the author found that the non-stop reading and ticking of the table made the respondents tired. Therefore, the first part of the questionnaire (i.e. questions concerning newness of physical surroundings) was refined to avoid this bias recurring in the main survey.

In summary, in this section the development of the questionnaire for investigating the perception of the level of newness of physical surroundings and exploring its effect on theme park visitors' repurchase shopping values and actual repurchase behaviour was discussed. Expert consultations, two pre-tests and one pilot survey were conducted for refining the questionnaire. Subsequently, the questionnaire (English Version **Appendix D** and Chinese Version **Appendix E**) was deemed to be ready for the main survey. This questionnaire was designed in four sections in total and included twenty-four questions for investigating the level of newness of physical surroundings (the first section), four questions for investigating the experience of repurchase utilitarian shopping value (the second section), six questions for investigating the experience of repurchase hedonic shopping value (the third section), and four questions for measuring the experience of actual repurchase behaviour (the fourth section). Additionally, an information page was provided as the first page to provide guidance for the respondents. Questions to collect data on demographic variables of the respondents were also designed and included on the front page and in the fourth section of the questionnaire.

4.4 Data Collection Procedure

Churchill (1999) suggested six steps for data collection as follows: (1) 'define the population', (2) 'identify the sampling frame', (3) 'select a sampling procedure', (4) 'determine the sample size', (5) 'select the sample elements', and (6) 'collect the data from the designed elements' (p.498). Cavana et al (2001) also suggested seven check points while designing a sampling method as follows: (1) the relevance of the target population, (2) the preciseness of the parameters, (3) the availability of the sampling frame, (4) probability or non-probability sampling, (5) sample size, (6) monetary cost, and (7) time spent. Combining Churchill and Cavana et al.'s suggestions, for the data collection for this study the following procedures were utilised: (1) identification of the population, the sampling frame, and the sampling element, (2) selection of the sampling methods, and (3) justification of the sampling size.

4.4.1 Identification of the Population, the Sampling Frame and the Sampling Element

Theme park services are high 'facility-driven' leisure services (Turley & Fugate 1992). The theme or amusement park has been categorised as having both a high physical surrounding importance and high hedonic purpose (Wakefield & Blodgett 1999, 1994). Theme park managers and providers are attracting visitors to spend more money and time by offering newness of physical surroundings. There are three studies that have distinguished the key success factors of theme parks. Firstly, McClung (1991, p.133) suggested offering new rides and attractions every year, introducing live entertainment, and instituting special promotions. Thach and Axinn (1994) commented that amusement parks should pay attention to refreshing their shows, rides and themes if parks intend to attract great numbers of 'variety-seeking' consumers by providing breadth of experience. They also suggested that 'consistency and gradual change' on attractions (e.g. new rides and new shows) would be able to offer depth of experience to encourage 'intensive' consumers. Scheurer (2004) focused more

on physical surroundings than McClung (1991). Key success factors for service design in theme parks included themes, attractions, architecture/design, quality factors, cleanliness and kindness, management of visitor flows, visitor orientation, all-inclusive price system, and renewal/extension. All of these offers are trying to stimulate visitors and generate a positive visiting experience. Therefore, theme park service was selected as an example for exploring the effect of the perception of the level of newness of physical surroundings on theme park visitors' repurchase shopping values and actual repurchase behaviour.

The theme park market of Taiwan was selected as the population. This is because a survey of Taiwanese national parks (N = 116 parks), which was conducted in 1999 (*The 1999 Tourism Industrial Research – Amusement Park*) indicated that 38.5% of amusement/theme park providers planned to invest in facilities in the next three year period, and that only 8.3% of providers did not intend to invest in their parks in the same period. As many as 44.0% of private theme parks had plans to develop their current facilities; 77.5% of these development/investment plans focused on lodging and convention facilities, 60.0% on transportation infrastructure and 57.5% on service facilities (Taiwan Tourism Bureau 1999). Hence, Taiwanese theme parks would potentially be interested in improving their facilities for attracting visitors, and findings of this study should be able to provide methodological and practical implications for managers or providers of Taiwanese theme parks of a greater understanding of the effect of their new or renewed physical surroundings on visitors.

In order to identify the sampling frame of this study, three Taiwanese theme parks were selected. The park selection method of this study was adapted from Chuo's (2002) theme park selection method, using the latest version (i.e. version 2003) of the Government survey of *the Visitors to Principal Tourist Spots in Taiwan by Month, 2003*. Chuo utilised an earlier survey (Taiwan Tourism Bureau 2002), which was the same type of government survey as this study utilised (Taiwan Tourism Bureau 2004), to select the Taiwanese theme parks. The ten top theme parks were identified from among the Taiwanese private

theme parks in 2003 (Taiwan Tourism Bureau 2004). These top ten parks included Janfusun (2,055,149 visits), Yamay (1,207,168 visits), Leofoo (1,203,931 visits), West Lake (1,043,699 visits), Formosan Aboriginal Culture Village (948,243 visits), Baguashan Buddha Scenic Area (466,020 visits), Zoumaliai Farm (453,309 visits), Formosa Fun Coast (449,947 visits), Window on China (445,793 visits), and Blue Lagoon Water Park (440,569 visits). These ten theme parks shared 66.5% in total of the Taiwanese private theme park market (131,105,453 visits) in 2003 (Taiwan Tourism Bureau 2004). The author of this study purposively selected three theme parks based on the level of renewal of physical surroundings, history of the parks, opening time, geographic location, and market share (see **Table 4.3** below). They were Janfusun Fancy World, Yamay Resort, and Taiwan Window on China (WOC). Permission to use the names of these three parks in this study was requested and granted by park management.

Table 4.3 Profiles of the selected theme parks

	WOC	**Janfusun**	**Yamay**
History in the Top Ten Taiwan Theme Parks	Long Since 1984	Middle Since 1990	Short Since 2000
Open Over Whole Year	Yes	Yes	Yes
Market Share (%) in 2003 (Taiwan Tourism Bureau 2004), N = 52	3.4%	15%	9%
Geographical Location	North Part of Taiwan	South Part of Taiwan	Middle Part of Taiwan
Ranking by Frequency of Visits in 2003	9_{th}	1_{st}	2_{nd}
Frequency of Renewed Physical Surroundings in the Last 3 Years**	Not very often	Often	As it is still a new park, it is just about time to renew in 2004

** Three years time gap was adapted from Johannessen et al.'s (2001) measurement of newness.

**Source:* Developed by the author

Interviews with Janfusun's manager and WOC's manager confirmed that Janfusun was the park that most frequently renewed its physical surroundings among these three selected theme parks. WOC had the longest history among these three selected theme parks. WOC possibly renewed its physical surroundings less often because the theme was based on miniature attractions. However, Yamay was a new theme park, opened in 2001, and it was just about time to renew its physical surroundings when the survey was conducted in late 2004 (October to December). Yamay's manager informed the author of this study that very few of the physical surroundings had been renewed within the last three years (2001 - 2004).

In terms of the sampling element of this study two conditions were applied to the visitor survey in order to classify the potential respondents. A valid respondent for this study had to satisfy two conditions: (1) he or she must be a repeat visitor and (2) he or she had to be more than 18 years old. As was noted in **Section 2.2** of **Chapter 2**, the first condition was necessary because the perception of the level of newness of physical surroundings had to be generated based on using the method of experience comparison. Valid respondents had to compare their last visit with their present visit to the selected theme park. Based on the above discussion, repeat visitors can provide better information than new visitors do as respondents in the sample for exploring the effect of the level of newness of physical surroundings on repurchase shopping values and actual repurchase behaviour. A longitudinal experience is needed for visitors to recall their previous experience on the theme park they has just visitred.

The second condition was necessary as it related to the potential respondent's ability to accurately answer the question concerning the level of newness. Previous theme park studies have suggested that the purchase behaviour of theme park visitors might vary depending on their demographic categories. In a household survey Moutinho (1988) found that the demographic categories of amusement park visitors in the United Kingdom tended to be: aged between 21 and 45 years old, visited one or two parks in the last three years; and less than

once a year for the frequency of visits. McClung (1991) found that theme park visitors tended to have higher incomes, be under 44 years old, and have children under 18 years old living at home. However, theme parks are not targeting children generally. Only one in four visitors to Disneyland is a child (McClung 1991, p.132). McClung found that 59.2 percent of theme parks visitors were aged between 25 and 44 years. However, it is believed that whether children are included or excluded in a research study should depend on the aim of the research topic. Some theme park studies (e.g. household survey or visitor assessment) have included children aged under 18 years as respondents (e.g. Thach & Axinn 1994; Mountinho 1988) whereas other studies (e.g. evaluation of a new theme park's attractions or mythologies) have excluded children (e.g. Johns & Gyimóthy 2002; Kau 1993). Thus, as newness measurement is a complex psychological process for children to perceive and children's repurchase behaviour could be very dependent on others (i.e. parents or relatives), they could not be regarded as serious respondents as adult visitors would be during a complex survey such as the assessment of the perception of the level of newness of physical surroundings. Based on the two conditions of the classification of the respondent, a respondent was asked for their age and his or her experience of visiting (see **Appendix D**) to the theme park his or her had just visited before fill in the questionnaire of this study. A respondent can not satisfied the two condition of the classification of the respondent was not a valid respondent.

This study was conducted in Taiwan where the number of visits to all theme park was 131,105,453 (including new visitors) in total in 2003. There were 3,708,110 visits (including new visitors) to the three selected theme parks in total in 2003. However, because the sampling element of this study had to be a repeat theme park visitor and more than 18 years old, the number of the population thus was unknown and was certainly considerably less than 3,708,100. Therefore, the sampling method and the sample size of this study could not be based on probability sampling methods. Selection of the sampling method, therefore, is discussed below.

4.4.2 Selection of the Sampling Method

As noted earlier in this section the population of repeat visitors to Taiwanese theme parks could not be identified so probability sampling methods (e.g. simple random sampling, or stratified sampling) were not considered in this study. The sampling method was, therefore, based on non-probability sampling methods (e.g. convenience sampling, judgement sampling, and quota sampling). Consequently, the judgement sampling method was selected for collecting the sample, because repeat theme park visitors, who were above 18 years old, were judged to be the sampling units/elements of this study. Other non-probability sampling methods such as convenience sampling or quota sampling are not suitable to this study to offer an effective way for the data collection. As the major purpose of judgement sampling is to judge who can provide the best information to achieve the aim of this study (Kumar 2005). The judgement sampling method was selected for the data collection.

For data collection a range of methods is also available, including face-to-face interviews, telephone interviews, self-administered questionnaires, mail questionnaires, and electronic questionnaires (Cavana et al. 2001). One of the most frequently used methods in leisure and tourism research is the self-administered questionnaire survey (Veal 1997). This method can be used to efficiently collect a substantial amount of data from the respondents, using a designed questionnaire (Zikmund 2003; Cavana et al. 2001). Examples of studies utilising the self-administered method to collect data from 'facility-driven' leisure services include shopping mall (Yoo et al. 1998), fashion stores (Sherman et al. 1997), and baseball stadiums (Hightower et al. 2002). Hence, the self-administered method was selected for collecting the data for this study.

Based on the sampling method the survey of this study was conducted utilising the judgement sampling and delivering the questionnaire face-to-face. A respondent was asked for their age and previous experience on the theme park he or she had just visited for classifying a valid respondent. All the data was

collected from the main exit gate of the selected theme park when the respondents finished their visiting.

4.4.3 Justification of the Sample Size

When the population, sampling frame, sampling element, and sampling method had been identified, the next step was to move on to the justification of the sample size. Aaker, Kumar and George (2001) stated that sample size depended on four considerations: (1) the number of groups and subgroups within the sample that will be analysed; (2) the value of the information in the study in general, and the accuracy required of the results; (3) the cost of the sample and (4) the variability of the population. Therefore, based on Aker et al.'s (2001) states, the sample size for this study was based on two considerations: practical and statistical.

For practical considerations, Sudman (1976) suggested that it is important to know what the budget limits are, and only then decide on a level of precision needed to determine sample size. Churchill (1999) stated that 'one of the more important practical bases of determining the size of the sample that will be needed is the anticipated cross-classifications to which the data will be subjected' (p.562). Churchill suggested that at least 20 to 50 usable questionnaires were needed per cell of the cross-classifications (e.g. age categories versus income categories). In this study, it was intended to cross-classify the three selected theme parks and the four groups of time gaps between visitors' last visit and present visit (last visit less than one year ago, last visit between one and two years ago, last visit between two and three years ago, and last visit more than three years ago). Thus, there were twelve subgroups (i.e. cells) in total. Consequently, the targeted sample size for this study had to produce at least 240 usable questionnaires (12 cells multiplied by 20 respondents).

Also, for another practical consideration, sample size can be determined by referring to the sample size used in previous studies (Churchill 1999). Examples

of similar types of studies to this study, which explored the effect of physical surroundings on consumers' emotional response using non-probability sampling, included: Yoo et al. (1998) who collected 294 usable questionnaires to explore the effect of store characteristics on in-store emotions and store attitude; Hightower et al. (2002) who collected 125 usable questionnaires to investigate the effect of physical surroundings on positive affects; and Stoel et al. (2004) who collected 276 usable questionnaires to explore the effect of the shoppers' satisfaction with mall attributes on shopping values. Therefore, a sample size of 300 usable questionnaires may be sufficient for this study.

For statistical considerations, Roscoe (1975) suggested a rule of thumb for determining the sample size of multivariate research (including multiple regression analysis): that the sample size should be more than ten times as large as the number of questions in a study. Additionally, sample size is an important consideration while running factor analysis. The judgment of factor loadings depends on the number of questions and sample size. The larger the number of questions to be grouped and the larger the number of factors anticipated, the more cases should be needed in the exploratory factor analysis. Comrey (1973) classified an adequate sample size based on the total usable questionnaires and described 100 as poor, 200 as fair, 300 as good, 500 as very good, and 1,000 as excellent. Moreover, Gorsuch (1997) suggested that each question should have at least ten cases (usable data) for exploratory factor analysis. For example, there were 24 questions in the concept of newness of physical surroundings. It needed at least 240 cases for an exploratory factor analysis. Comrey (1988) also suggested that a sample size of 200 is adequate in most cases of ordinary factor analysis that involves no more than 40 questions. Recently, Devellis (2003) has suggested that 100 cases would probably be too few for a 20-question factor analysis, but 400 cases might be adequate for a 90-question factor analysis. Therefore, as there were twenty-four questions of newness of physical surroundings, four questions of repurchase utilitarian shopping value, six questions of repurchase hedonic shopping value, and four items of actual

repurchase behaviour the minimum sample size for this study required 380 usable questionnaires (38 multiple 10) for most multivariate analysis methods.

In short, **Table 4.4** below shows data collection methods and strategies used in each park. Based on the experience of the data collection for the pilot survey the response rate increased from 54% (97 usable questionnaires out of 179 questionnaires) for the pilot survey to 58% (732 usable questionnaires out of 1255 questionnaires) for the main survey. The unusable data were classified using four criteria: those showing the halo effect, unfinished questionnaires (more than 50% of questions unfinished on the first part), respondent ages under 18 years old, first time visitors, and missing values. The trimming of the missing values of the data will be addressed in the beginning of **Section 4.5** of this chapter.

Table 4.4 Data collection methods and strategies in each selected theme park

	Theme Parks		
	Window on China	**Yamay**	**Janfusun**
Standard Distribution Days	4 days (2 weekdays and 2 weekend days)	4 days (2 weekdays and 2 weekend days)	4 days (2 weekdays and 2 weekend days)
Additional Days	2 weekend days	4 weekend days	1 weekend day
Questionnaires Distributed	347	427	481
Usable Sample Size	196 (56.5%)	270 (63.2%)	266 (55.3%)
Distribution Time	From Mid-November to End December 2004		
Sampling Method	Judgement Sampling	Judgement Sampling	Judgement Sampling
Location of the Questionnaire Distribution and Collection	Main Exit Gate		
Valid Respondent Conditions	(1) More than 18 years old. (2) Have visited the selected theme park two or more times.		
Interviewers Employed	2 trained doctoral students (including the author and one trained doctoral student).	2 trained undergraduate students who participated in the pilot survey.	2 trained undergraduate students who participated in the pilot survey.
Incentive	An incentive worth AUD.50 per unit distributed.		Janfusun souvenirs worth AUD.50 per unit were distributed.

**Source*: Developed by the author

4.5 Data Analysis Procedure

The usable data of this study were entered into the Statistical Package for the Social Science (SPSS) software. The missing values of the data were checked. Wrongly entered data and missing values were double checked with the original data (i.e. the questionnaire) by the author.

In order to avoid missing values the interviewers involved in the data collection, were trained to ask respondents not to leave any question blank. However, some respondents still left questions blank, and these questions were encoded as missing data. The missing values of the items (i.e. questions) on the four

variables were analysed via missing value analysis from the SPSS software. The highest percentage of missing value among the newness of physical surroundings items was 1.6%, which was the item 'size of building(s)'. The highest percentage of missing value between both the utilitarian and hedonic variables was .7%, which was 'level of excitement'. The highest percentage of missing values on the repurchase variable was .9%, which were 'my preference level for this theme park', 'the number of services I use in this theme park', and 'the time I spent in this theme park'. All research items satisfied Cohen, Cohen, West and Aiken's (2003) advice, that 5% to 10% of missing values on a variable is not large.

Once the data were trimmed, this study moved on to the data analysis procedure. Cavana et al. (2001) suggested three steps of data analysis as follows: (1) 'feel for the data', (2) 'goodness of the data' and (3) 'hypothesis testing'. The step of 'feel for the data' aims to check the characteristics of the respondents. The profile of the respondents will be demonstrated in **Section 4.6** of the chapter. The step of the 'goodness of the data' aims to check the quality and the normality of the data including a manipulation check of the data and a normality check of the items (i.e. the items of the newness of physical surroundings, repurchase utilitarian and hedonic shopping values, and actual repurchase behaviour). Hence, a mean comparison of the items of newness of physical surroundings across the three selected theme parks and the time gap between the visitors' last visit and their present visit were checked for the quality of the data. Descriptive statistics including mean, standard deviation, skewness value, kurtosis value, and correlation coefficient were required for checking the goodness of the items. An exploratory factor analysis also was used for reducing the items and providing the validity of the measures (i.e. the measure of newness of physical surroundings, the measure of repurchase utilitarian shopping value and repurchase hedonic shopping value, and the measure of actual repurchase behaviour). The reliability was also checked. The goodness of the data and the items will be discussed in **Chapter 5**. The step of 'hypothesis testing' aims to test the hypotheses of this study. Multiple regression analysis and mediated

regression analysis were utilised with the SPSS software to analyse the data in this study. The result of the 'hypothesis testing' will be addressed and discussed in **Chapter 6**. **Table 4.5** shows the stages of the analysis and the analysis methods employed. The details of each data analysis method are also discussed below.

Table 4.5 Data analysis procedures

Stages	Type of Analysis	Aim of the Analysis	Type of Data	Hypotheses Testing
Stage One	Mean Comparison	Manipulation check	Ordinal, and Interval	None
Stage Two	Descriptive Statistics	Normality check of the items Item correlation	Interval	None
Stage Three	Exploratory Factor Analysis	Items reduction	Interval	None
Stage Four	Reliability and Validity Analysis	Reliability and validity check	Interval	None
Stage Five	Multiple Regression Analysis	Hypotheses testing	Interval	**Hypotheses 1a & 1b**
Stage Six	Mediated Regression	Hypotheses testing	Interval	**Hypotheses 2a & 2b**

**Source*: Developed by the author

For **Stage One**, the method of manipulation check used in the previous studies of physical surroundings for identifying the level of quality of the data was applied (e.g. Babin et al. 2003; Baker et al. 1994; Baker et al. 1992). As newness of physical surroundings was the major concept developed for this study the method of manipulation check was designed to check the quality of the data using mean comparison of the items related to newness of physical surroundings. Based on Aaker et al's (2001) suggestion, a manipulation check can be designed by 'creating different levels of the independent variable (e.g. time gaps between visitors' last visit and their present visit). This is known as manipulating the variable. In the experiment, the manipulated variable, and the effect of each

level of manipulation on the dependent variable (e.g. the level of newness of physical surroundings of this study) is observed' (p.336).

Two variables were designed as the independent variables for the manipulation check, with the level of newness of physical surroundings as perceived by visitors to theme parks (dependent variable). The first independent variable of the manipulation check was the level of renewal of the three selected theme parks; the second one was the four groups of time gap between the visitors' last visit and present visit. The reason for using these two independent variables is because they can directly influence visitors' perception of the level of newness of physical surroundings. The manipulation check utilised the mean comparison method to check the difference across these two independent variables of the manipulation check because these two independent variables involved more than three groups. The perception of the level of newness of physical surroundings across the different levels of renewal of the selected theme parks (i.e. the three selected theme parks) and the time gaps between visitors' past visit and present visit (e.g. within three years, or more than three years) were compared. For the first manipulation check of this study, good quality and effectiveness of the data should show that the higher the level of renewal of the theme park (i.e. Janfusun), the greater the level of newness of physical surroundings the repeat visitors perceived. For the second manipulation check of this study good quality and effectiveness should indicate that the larger the time gap between visitors' last visit and present visit, the greater the level of newness of physical surroundings the visitors perceived.

In addition, information of the actual date of the renewal of the physical surroundings of each of the selected theme parks, based on the twenty-four items of the newness of physical surroundings, was collected from each of the selected theme parks and is presented in **Appendix F**. This information was compared with the mean comparison of the result of the two manipulation checks. Good quality of the data ought to have been achieved if the first manipulation checks

confirmed the level of newness of physical surroundings of the three selected theme parks. **Appendix F** indicates that the actual level of newness of physical surroundings of the three selected theme parks were as follows: Janfusun had the greatest level of renewal of physical surroundings; WOC had a moderate level of renewal of physical surroundings; Yamay had not renewed the physical surroundings.

For **Stage Two**, the major aim of the descriptive statistics was to check the normality of the data for the items. Hair, Anderson, Tatham and Black (1998) indicated that 'the most fundamental assumption in multivariate analysis is normality, referring to the shape of the data distribution for an individual metric variable and its correspondence to the normal distribution, the benchmark for statistical methods' (p.70). Tabachnick and Fidell (2001) indicated that measurement of the skewness and kurtosis of the data for a single item provides an indication of normality. SPSS offers skewness and kurtosis statistics and standard errors, enabling calculation of the significant and skewness and kurtosis. A distribution is considered normal where the range of the skewness value and the kurtosis value fall between –1.00 and +1.00 (Hair et al. 1998). Additionally, as the mean and standard deviation are the statistics applied frequently in descriptive statistics (Cavana et al. 2001), the mean and the standard deviation of the items will be presented for checking the normality of the items. The mean is represented as the 'average' response, while the standard deviation represents the spread of the data (Churchill 1999). Cavana et al (2001) also suggested that a correlation matrix of the items should be provided for giving a 'feel' of the data. This matrix would offer an indication of the relationship between the items. Roscoe (1975) suggested an adequate correlation coefficient should fall within the range between .30 and .70. A correlation coefficient lower than .30 indicates a low relationship between two research items, whereas if the correlation coefficient is higher than .70 it indicates a high relationship between two research items. Cavana et al (2001) also suggested that when the correlation coefficient is over .75 it indicates a high relationship between two research items.

Therefore, the data for the twenty-four items of newness of physical surroundings, four items of repurchase utilitarian shopping value, six items of repurchase hedonic shopping value and four items of actual repurchase behaviour were checked for their normality. In the descriptive statistics, the skewness and kurtosis were checked for the normality of the items. The mean and the standard deviation were produced to check the average of the responses and the spread of the data. Correlation coefficients were calculated to check for the relationship between the items.

For **Stage Three**, an exploratory factor analysis was carried out to extract the items of the variables from the main survey. Items relating to newness of physical surroundings, utilitarian shopping value, hedonic shopping value and repurchase behaviour were extracted. Two methods of factor analysis were utilised for exploratory factor analysis: principle component analysis and common factor analysis. Gorsuch's (1997) study suggested that principle component analysis could avoid statistical bias (i.e. there is not a unique set of factor scores that can be evaluated from the common factor analysis, but principle component analysis is able to provide this calculation better than common factor analysis does). As repurchase utilitarian shopping value, repurchase shopping value, and actual repurchase behaviour were conceptually designed as a single dimension, principle component analysis was utilised for this study. All results of principle component analysis were generated using SPSS. In terms of the factor loading, Hair et al. (1998, p.111) suggested that factor loadings greater than (1) $\pm$ .30 are considered to meet the minimal level; (2) loadings of $\pm$ .40 are considered more important; (3) and loadings greater than $\pm$ .50 are considered practically significant. In this study, the item with factor loadings $\pm$ .50 or greater were grouped in one group. In addition, some items might be cross-loaded (close to or more than .50) in more than one factor. This type of item was deleted as it meant that it could be interpreted for more than one factor (Hair et al. 1998).

Additionally, eigenvalues and percentage of variance criterion are frequently using for deciding the number of factors to extract. *Eigenvalue* is the 'column sum of squared loadings for a factor. It represents the amount of variance accounted for by a factor' (Hair et al. 1998, p.89). *Percentage of variance criterion* is 'a specified cumulative percentage of total variance extracted by successive factors' (Hair et al. 1998, p.104). The cut-off value of eigenvalue is suggested to be 1; an eigenvalue greater than 1 would be considered significant (Hair et al. 1998). A percentage of variance criterion with sixty percent of the total variance would be satisfactory in social science (Hair et al. 1998). These two criteria have also been used for extracting the number of factors of store environment (e.g. Baker et al. 1994). These two criteria were therefore used in this study for extracting the number of factors of the variables (i.e. newness of physical surroundings, repurchase utilitarian and hedonic values and actual repurchase behaviour).

For **Stage Four** in order to provide valid measures of the questionnaire both reliability and validity must be evaluated. Churchill (1979) indicated that 'a measure is reliable to the extent that independent but comparable measures of the same trait or construct of a given object agree (p.65)'. In contrast, 'a measure is valid when the differences in observed scores reflect true differences on the characteristic one is attempting to measure and nothing else' (p.65). A valid measure will have good reliability, but a reliable measure may not mean it has good validity (Malhotra 2003). Both the reliability and validity of the questionnaire of this study were measured.

A reliability evaluation is needed to test 'the degree to which measures are free from error and therefore, yield consistent results' (Zickmund 2003, p.300). Churchill (1979) pointed out that the coefficient alpha (i.e. Cronbach's alpha) is 'the basic statistic for determining the reliability of a measure based on internal consistency' (p.70). He suggested that 'coefficient alpha absolutely should be the first measure one calculates to assess the quality of the instrument' (p.68). A questionnaire with good reliability will show the Alpha value as greater than .70.

It will not be reliable if the alpha value is less than .70 (Nunnally 1978). DeVellis (2003) also suggested that a research scale with Cronbach's alpha value below .60 is unacceptable; between .60 and .65 is undesirable; between .65 and .70 is minimally acceptable; between .70 and .80 is respectable; between .80 and .90 is very good; much above .90 the researcher should consider shortening the scale. In some cases, however, the alpha value of reliability demands a higher value. DeVellis (2003) noted that:

> A scale with an alpha of .85 is probably perfectly adequate for use in a study comparing groups with respect to the construct being measured. Individual assessment, especially when an important decision rests on that assessment, demand a much higher standard... Scales that are intended for individual diagnostic, employment, academic placement, or other important purposes should probably have considerably higher reliabilities, in the mid-.90s, for example (p.96).

As the research element of this study is theme park visitors a higher standard of alpha value should be considered. Thus, testing of item-to-total correlation for research factors (i.e. extracted from exploratory factor analysis) was also suggested for use with the alpha value (Churchill 1979). Items should be evaluated based on the factors for item deletion or their correlation to the factors. It was suggested that an expected score for item-to-total correlation should exceed .50 (Hair et al 1998). In other words, an item of a factor should be reconsidered in a construct or concept if the score of item-to-total correlation is less than .50.

Once reliability is achieved validity is needed to test 'the ability of a measure to measure what it is supposed to measure' (Zickmund 2003, p.302). In terms of validity evaluation, there are three major categories of validity: content validity, criterion validity, and construct validity. However, due to the limited budget and time of this study, achievement of criterion validity was not possible. Therefore, two types of validity testing were used in this study, content validity and construct validity.

Firstly, *content validity*, indicates that 'the measures include an adequate and representative set of items that tap the concept' (Cavana et al. 2001, p.213).

Cavana et al. (2001) suggested that content validity can be achieved (1) from literature, (2) from qualitative research, and (3) from experts' agreement an the developed items. As addressed in **Section 4.3** of this chapter, content validity was achieved by generating the items from their conceptual background and through obtaining experts' opinions of the items.

Secondly, *construct validity*, refers to 'how well the results obtained from the use of the measure fit the theories around which the test is designed' (Cavana et al. 2001, p.213). Construct validity must be established from (1) 'the extent to which the measure correlates with other measures designed to measure the same thing and (2) whether the measure behaves as expected' (Churchill 1979, p.70). Construct validity could be achieved by both convergent and discriminant validity (Hair et al. 1998). *Convergent validity* is 'a validity measure that shows a high correlation with different measures of similar constructs' (Zickmund 2003, p303). Therefore, there is no need to assess convergent validity if a measure designed as unidimensional. In contrast, *discriminant validity* is 'the ability of some measure to have a low correlation with measures of dissimilar concept' (Zickmund 2003, p.304).

There are many ways in which construct validity can be achieved. Aaker et al. (2001) suggested that the researcher should evaluate whether the measure confirms hypotheses generated from the theory based on the concept or not. If it does that, then it achieves construct validity. Two types of statistical analysis were suggested by Cavana et al. (2001) that can be adapted for achieving construct validity: (1) factorial analysis (e.g. principle component analysis), and (2) correlational analysis. Construct validity of this study could be achieved if the result of principle component analysis grouped the items in the same way as the dimensions conceptually developed (see **Appendix C**).

Correlational analysis can be used for evaluating *convergent* and *discriminant* validity (Ruekert & Churchill 1984). *Convergent validity* would be achieved if the correlation among the three dimensions of newness of physical surroundings

were significant. *Discriminant validity* would be achieved if the correlation between the independent variable (i.e. the dimensions of newness of physical surroundings), mediator variable (i.e. repurchase utilitarian and hedonic shopping values), and dependent variable (i.e. actual repurchase behaviour) were low. Discriminant validity would not be achieved if a correlation value between two variables were higher than .85 (Kline 1998).

Additionally, Churchill (1979) insisted that 'internal consistency (i.e. factorial, convergent, and discriminant validity) is a necessary but insufficient condition for construct validity' (p.72). Churchill suggested a final step by establishing *nomological validity* to achieve construct validity that 'is to show the measure behaves as expected in relation to other constructs' (Churchill 1979, p.72). Nomological validity is 'the relationship between measures representing theoretically related constructs. If a relationship between constructs is established in theory and the measures of those constructs behave as expected with respect to each other, the nomological validity of the measure is supported' (Ruekert & Churchill 1984, p.231). It was concluded that nomological validity of the measure of newness of physical surroundings would be achieved if **Hypotheses 1a**, **1b**, **2a** and **2b** were supported.

In **Stages Five** and **Six**, Structural Equation Modelling is a data analysis method increasingly used for exploring the effect of physical surroundings on consumer emotional responses (e.g. Stoel et al. 2004; Hightower et al. 2002; Wakefield & Blodgett 1999; Wakefield & Baker 1998; Yoo et al. 1998; Sherman et al. 1997). Gefen, Straub, and Boudreau (2000) compared the difference between LISREL, Partial Least Squares (PLS), and Linear Regression techniques. They categorised Structural Equation Modelling techniques such as LISREL and PLS are as the second generation of data analysis techniques, whereas regression models such as ANOVA, MANOVA, and Linear Regression are first generation data analysis techniques. Gefen et al. (2000) indicated that Structural Equation Modelling techniques required a sound theory base. They are used frequently for supporting confirmatory research. For example, Stoel et al. (2004) utilised the

LISREL technique to test the effect of shoppers' satisfaction with mall attributes on shopping values, using Babin and Darden's (1994) hedonic and utilitarian shopping value scale. In contrast to the Structural Equation Modelling technique a sound theory is not essential in regression models, and they support both exploratory and confirmatory research. For example, Babin et al. (2003), Baker et al. (1994) and Baker et al. (1992) used ANOVA and Analysis of Covariance (ACOVA) to explore the effect of store environment on consumers. Additionally, Structural Equation Modelling techniques can be more effective than regression models in examining complex models (Cheng 2001). The author of this study found that the previous studies, which used the Structural Equation Modelling techniques, mostly had complex conceptual frameworks (i.e. many variables) such as those of Stoel et al. (2004), Hightower et al. (2002), Wakefield and Blodgett (1999), Wakefield and Baker (1998) and Yoo et al. (1998). However, the previous studies, which had few variables in their conceptual frameworks, used regression models such as those of Babin et al. (2003), Fiore et al. (2000), Baker et al. (1994) and Baker et al. (1992). Therefore, as this study is largely exploratory research and the conceptual framework has only four variables which designed based on the S-O-R paradigm, regression models were used in **Stages Five** and **Six**.

Based on the hypotheses developed in **Chapter 3**, multiple regression analysis and mediated regression analysis were chosen for exploring the effect of the level of newness of physical surroundings on theme park visitors' repurchase shopping values and actual repurchase behaviour. Two multiple regression analyses were utilised in this study for examining **Hypotheses 1a** and **1b** because there were three dimensions of newness of physical surroundings. The mediated regression was used for testing **Hypotheses 2a** and **2b.** As the conceptual framework of this study was designed based on a stimulus-organism-response (S-O-R) paradigm in **Section 3.7** of **Chapter 3**, a mediated regression approach was suggested for this type of hypothesis testing (Baron & Kenny 1986). The aim of mediated regression analysis is to determine whether the relationship between the stimulus variable and the response variable is due, completely or in part, to the

organism variable (Krull & MacKinnon 2001). Baron and Kenny (1986) suggested that three regression equations should be estimated while testing for mediation. Firstly, 'regressing the mediator on the independent variable' (α). Secondly, 'regressing the dependent variable on the independent variable' (β). Thirdly, 'regressing the dependent variable on both the independent variable and on the mediator' (γ) (p.1177). Based on these three conditions three regression equations [**Equations 1(1a and 1b)**, **2**, and **3(3a** and **3b)**] were used to test the mediating role of repurchase shopping values (M) between the perception of the level of newness of physical surroundings (X) and actual repurchase behaviour (Y).

Equation 1: $M = \beta_{0(1)} + \alpha Xn + \varepsilon_{(1)}$

As there are three conceptualised dimensions of newness of physical surroundings: 'aesthetic design' (X1), 'spatial layout and functionality' (X2), and 'point-of-purchase' (X3) and two shopping values (utilitarian and hedonic values), **Equation 1** can be divided into two sub-equations (i.e. **Hypotheses 1a** and **1b**):

Equation 1a: $M(\text{Utilitarian}) = \beta_{0(1)} + \alpha X1 + \alpha X2 + \alpha X3 + \varepsilon_{(1)}$

Equation 1b: $M(\text{Hedonic}) = \beta_{0(1)} + \alpha X1 + \alpha X2 + \alpha X3 + \varepsilon_{(1)}$

Equation 2: $Y = \beta_{0(2)} + \gamma Xn + \varepsilon_{(2)}$

Specifically, **Equation 2** can be: $Y = \beta_{0(2)} + \gamma X1 + \gamma X2 + \gamma X3 + \varepsilon_{(2)}$

Equation 3: $Y = \beta_{0(3)} + \gamma Xn + \beta M(\text{Utilitarian+Hedonic}) + \varepsilon_{(3)}$

Equation 3a: $Y = \beta_{0(3)} + \gamma Xn + \beta M(\text{Utilitarian}) + \varepsilon_{(3)}$ (i.e. **Hypothesis 2a**)

Equation 3b: $Y = \beta_{0(3)} + \gamma Xn + \beta M\,(\text{Hedonic}) + \varepsilon_{(3)}$ (i.e. **Hypothesis 2b**)

Note: $\beta_{0\,(1),\,(2),\,(3)}$ are respectively the population regression intercept in **Equations 1**, **2** and **3**.
$\varepsilon_{(1),\,(2),\,(3)}$ are respectively the residuals in **Equations 1**, **2** and **3**.

However, these three conceptualised dimensions of newness of physical surroundings may be regrouped by an exploratory factor analysis. Therefore, the Xn will be changed depending on the result of the exploratory factor analysis.

Baron and Kenny (1986) suggested that a mediated role in the relationship between the independent variable and the dependent variable can be supported by three steps: (1) 'the independent variable must affect the mediator in the first equation (i.e. **Hypotheses 1a** and **1b**), (2) the independent variable must be shown to affect the dependent variable in the second equation, (3) the mediator must affect the dependent variable in the third equation, and the relationship between independent variable and dependent variable must be weaker than the relationship between the mediator and the dependent variable' (p.1177). Therefore, in this study, the testing of the mediating role of repurchase shopping values in the relationship between the perception of the level of newness of physical surroundings and actual repurchase behaviour can be supported if: (1) the relationship between the level of newness of physical surroundings, and repurchase shopping values (i.e. **Hypotheses 1a** and **1b**) has to be significantly supported (i.e. **Equation 1a** and **1b**) as well as the relationship between the level of newness of physical surroundings and actual repurchase behaviour (i.e. **Equation 2**). **Equations 3a** and **3b** (i.e. **Hypotheses 2a** and **2b**) can be significantly supported when the effect of the three extracted factors of newness of physical surroundings on the repurchase shopping values (i.e. **Hypotheses 1a** and **1b**) is significantly supported, but the effect of the three extracted factors of newness of physical surroundings on actual repurchase behaviour is not significantly supported.

The indices for evaluating the result of multiple regression analysis require conclusion of the critical indices such as R-square value, adjusted R-square value, β-value, F-value, Probability (should be less than .05), T-value (should be greater than 1.96), tolerance (should be greater than .10), and variance inflation factor (VIF, should be less than 10) (Hair et al. 1998, p.193). R-square, β-value, F-value, probability and T-value are used to test the model fit. R-square and

adjusted R-square represent the percentage of the explained variation of the independent variable from the total variation of the dependent variable (i.e. R-square = explained variation of X/total variation of Y), and R-square requires association with F-value for checking the overall model fit. β-value represents the level of explanation variation of the individual measure (e.g. 'spatial aesthetics', 'placement, décor and functionality', and 'point-of-purchase') of the independent variable from the dependent variable, and β-value requires incorporation with t-value for establishing the significance of the individual measure. Additionally, tolerance and VIF value test the multicollinearity between the independent variable and dependent variable. In the checking of multicollinearity, the greater the value of tolerance and the lower the level of VIF value, the less multicollinearity exists. The results of the regression analysis will be validated by comparing them with those of the previous studies reviewed in **Section 3.7** of **Chapter 3**.

In summary, this section has explained the data analysis procedure for exploring the hypotheses of this study. Manipulation checks used the mean comparison method to evaluate the quality of the data of this study. Descriptive statistics were used for checking the normality of the items and the correlation coefficient between the items. Principle component analysis was utilised for reducing the number of the items. Reliability and validity were checked before hypothesis testing. Multiple regression and mediated regression were used for testing the hypotheses.

4.6 Profile of the Respondents

Table 4.6 presents the profile of respondents across the three selected theme parks. A total of seven hundred and thirty-two usable questionnaires was achieved. Gender, age, and time gap between the respondents' last visit and present visit, length of visit, and the respondents' opinion of the importance of renewing physical surroundings were categorised, as shown in **Table 4.6**.

Table 4.6 Profile of respondents

	Categories	WOC	Janfusun	Yamay	Total
Total		196	266	270	732
Gender	**Male**	124	139	131	394
	Female	72	127	139	338
Age	**18-24**	30	117	121	268
	25-34	91	82	86	259
	35-44	52	44	45	141
	45-54	21	10	12	43
	Above 55	2	8	3	13
	Missing Value	0	5	3	8
Time Gap between Last and Present Visits	**Less than 1 year**	43	76	117	236
	Between 1 and 2 years	35	71	114	220
	Between 2 and 3 years	20	63	24	107
	More than 3 years	98	54	12	164
	Missing Value	0	2	3	5
Length of Visit	**Less than an hour**	3	11	2	16
	1 to 3 hours	41	83	52	176
	3 to 5 hours	96	115	136	347
	5 to 7 hours	55	43	59	157
	Above 7 hours	1	12	20	33
	Missing Value	3	0	0	3
The Importance of Renewing Physical Surroundings	**Agree**	177	214	229	620
	Neutral	16	40	38	94
	Disagree	2	2	1	5
	Missing Value	1	10	2	12

**Source*: Developed by the author

Table 4.6 above indicates that just over half of the 732 respondents (53.8%) were female and 46.2% were male. The majority of the respondents were aged between 18 and 44 years (92.3%). This result confirmed McClung (1991) and Moutinho's (1988) findings that theme park visitors' ages tend to be between 21 and 45 years old. The last visit to the theme park by the majority of respondents was less than two years ago. A large number of the respondents (47.6%) spent three to five hours visiting the theme park. Most respondents (86.2%) agreed that renewing physical surroundings was important to a theme park.

4.7 Summary

This chapter identified that this study is a quantitative research. In order to test the hypotheses the methodology divided into three sections; the section of questionnaire development, the section of data collection procedure and data analysis procedure. In the section questionnaire development, the questionnaire for this study was developed in several stages: item/question generation; scale identification; language translations; expert consultation; pre-tests; pilot survey and item refinement and combination. The final version of the questionnaire included twenty-four questions of newness of physical surroundings, four questions of repurchase utilitarian shopping value, six questions of repurchase hedonic shopping value, and four questions of actual repurchase behaviour.

In the section of data collection procedure, three Taiwanese theme parks (WOC, Janfusun, and Yamay) were selected as the industrial predictor for this study. These three theme parks were selected based on the renewal level of their physical surroundings, number of annual visits and geographical locations. The judgment sampling method was used for data collection in the main survey. All the respondents were qualified as they were repeat visitors and over 18 years old. The main survey produced 732 usable questionnaires.

In the section of data analysis procedure, the quality of the data was checked using the manipulation check method and normality checking. Item reduction and reliability and validity were completed (**Chapter 5**) before this study moved on to hypothesis testing (**Chapter 6**). Multiple regression and mediated regression analysis were used for testing the hypotheses. Regression analysis was used for testing **Hypotheses 1a** and **1b**. Mediated regression analysis was used for testing **Hypotheses 2a** and **2b**.

Additionally, a profile of the respondents was summarised in **Table 4.6** of this Chapter.

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CHAPTER 5.

THE ASSESSMENT OF THE QUALITY OF THE DATA

5.1 Introduction

Following the stages of the data analysis procedure described in **Section 4.5** of **Chapter 4**, this chapter addresses the level of 'the feeling of the data' and the 'goodness of the data'. The chapter has been divided into four sections. The first section is a manipulation check of the quality and the effectiveness of the data using the mean comparison method. The second section provides the descriptive statistics, normality check and correlation check of the items. The third section explains how the items were reduced by using the exploratory factor analysis technique. For this the data from the items of newness of physical surroundings, repurchase utilitarian shopping value, repurchase hedonic shopping value and the items of actual repurchase behaviour were ran using principle component analysis. Finally, the fourth section provided an assessment of the reliability and validity of the measures considered in the first three sections of this chapter.

5.2 Manipulation Checks

The aim of this section is to check the quality and the effectiveness of the data. Two variables: the first being the three selected theme parks (i.e. Janfusun, WOC, and Yamay) and the second being the time gap between visitors' last visit and present visit (i.e. less than one year, between one and two years, between two and three years, and more than three years) were employed for this manipulation

check. This section is based on the mean comparison approach to compare the items of newness of physical surroundings with these two variables. Two parts of the manipulation check are included. The first part of this section is a mean comparison of the items of newness of physical surroundings across the three selected theme parks. The second part of this section is based on a mean comparison of the items of newness of physical surroundings across the four time gap groups.

Table 5.1 shows the mean comparison of the items of newness of physical surroundings across the three selected theme parks. The 563 respondents were classified for this comparison using the same time gaps as shown in **Appendix F**. In order to obtained an accurate comparison between **Table 5.1** and **Appendix F**, the time gap between these 563 respondents' last visit and present visit had to be the same time gap for this mean comparison. This mean comparison was designed for confirming the actual newness level of the three selected theme parks (see **Appendix F**) with visitors' perception of the level of newness of physical surroundings. As shown in **Table 5.1**, this comparison confirmed the level of newness of physical surroundings indicated in **Appendix F**, and indicated that Janfusun's visitors perceived the greatest level of newness of physical surroundings compared to visitors to the other two parks. Visitors to WOC also mostly perceived a greater level of newness of physical surroundings than did visitors to Yamay. Additionally, **Table 5.2** demonstrates the second mean comparison of the manipulation check between the items of newness of physical surroundings and the four time gap groups. This mean comparison shows that those visitors who had a time gap between their last visit and present visit in the 'more than three years' group' perceived a greater level of newness of physical surroundings than the other three groups.

In short, as these two mean comparisons indicated that the level of newness of physical surroundings can be distinguished by the different level of newness of the parks and the different time gap groups, the quality of the data is considered to be high.

Table 5.1 The level of perceived newness of physical surroundings across the three selected theme park

Theme Park		New 1	New 2	New 3	New 4	New 5	New 6	New 7	New 8	New 9	New 10	New 11	New 12
Janfusun	Mean	3.10	3.29	3.24	3.19	2.90	3.13	3.12	3.06	3.02	3.05	3.12	2.98
N=210	SD	.84	.94	.91	.81	.80	.85	.80	.85	.83	.84	.87	.90
WOC	Mean	3.33	3.68	3.53	3.41	3.02	3.39	3.53	3.23	3.19	3.31	3.40	3.43
N=98	SD	.97	1.00	1.10	1.05	1.00	.95	.90	.93	1.02	1.05	1.04	1.05
Yamay	Mean	3.18	3.63	3.78	3.63	3.35	3.47	3.51	3.52	3.62	3.57	3.43	3.35
N=255	SD	.912	.93	1.00	1.00	1.04	.88	1.02	1.00	.94	.92	.88	1.03
Total	Mean	3.17	3.51	3.54	3.43	3.12	3.33	3.37	3.30	3.32	3.33	3.31	3.22
N=563	SD	.90	.96	1.01	.97	.97	.89	.94	.95	.96	.94	.92	1.00

1 = 'Completely New', 5 = 'Not New At All'.

Theme Park		New 13	New 14	New 15	New 16	New 17	New 18	New 19	New 20	New 21	New 22	New 23	New 24
Janfusun	Mean	3.13	3.07	3.11	3.00	2.75	3.01	3.06	3.11	2.96	3.08	2.32	2.73
N=210	SD	.79	.84	.92	.81	.87	.856	.91	.95	.83	.89	1.02	.91
WOC	Mean	3.41	3.36	3.38	3.35	3.15	3.24	3.32	3.49	3.31	3.53	3.26	3.26
N=98	SD	.89	.99	1.10	.93	1.03	1.02	1.00	1.11	.95	.98	1.02	1.03
Yamay	Mean	3.43	3.48	3.62	3.31	3.26	3.46	3.60	3.56	3.15	3.24	3.33	3.45
N=255	SD	1.01	.97	1.02	.91	.99	1.00	1.07	1.00	.90	.94	.98	.97
Total	Mean	3.31	3.31	3.39	3.20	3.05	3.26	3.35	3.38	3.10	3.23	2.94	3.15
N=563	SD	.92	.94	1.02	.89	.98	.97	1.03	1.02	.89	.94	1.11	1.01

1 = 'Completely New', 5 = 'Not New At All'.

*_Source_: Data analysis (2006)

Table 5.2 The level of perceived newness of physical surroundings across the four time gap groups

Last Visit		New 1	New 2	New 3	New 4	New 5	New 6	New 7	New 8	New 9	New 10	New 11	New 12
Less than 1 year, N=236	Mean	3.31	3.66	3.67	3.53	3.18	3.41	3.46	3.39	3.41	3.34	3.39	3.31
	SD	.923	.952	.99	.97	.99	.90	.96	.93	.91	.93	.91	1.02
Between 1 and 2 years, N=220	Mean	3.13	3.44	3.56	3.45	3.23	3.29	3.33	3.33	3.36	3.48	3.30	3.24
	SD	.89	.94	1.02	.97	.97	.87	.94	.97	.97	.91	.91	1.00
Between 2 and 3 years, N=107	Mean	2.98	3.32	3.21	3.15	2.79	3.24	3.22	3.04	3.06	3.01	3.14	2.99
	SD	.81	.99	.98	.90	.87	.92	.88	.93	.99	.97	.92	.94
More than 3 years, N=164	Mean	2.79	3.12	3.13	3.04	2.80	2.86	2.91	2.90	2.91	2.94	2.87	2.82
	SD	.97	.93	.95	.88	.97	.92	.93	.84	.94	.92	.88	.99
Total N=732	Mean	3.09	3.42	3.45	3.34	3.05	3.22	3.26	3.21	3.23	3.24	3.21	3.13
	SD	.928	.97	1.01	.96	.98	.92	.96	.94	.97	.95	.93	1.01

1 = 'Completely New', 5 = 'Not New At All'.

Last Visit		New 13	New 14	New 15	New 16	New 17	New 18	New 19	New 20	New 21	New 22	New 23	New 24
Less than 1 year, N=236	Mean	3.43	3.37	3.50	3.32	3.10	3.41	3.48	3.55	3.24	3.36	3.12	3.26
	SD	.88	.94	1.01	.95	1.02	.93	1.02	.98	.91	.95	1.07	.98
Between 1 and 2 years, N=220	Mean	3.31	3.35	3.41	3.16	3.15	3.30	3.44	3.40	3.10	3.21	3.05	3.19
	SD	.96	.95	1.01	.87	.98	1.00	1.01	1.01	.87	.92	1.14	1.07
Between 2 and 3 years, N=107	Mean	3.07	3.07	3.07	3.02	2.73	2.82	2.89	2.97	2.82	2.98	2.31	2.81
	SD	.88	.92	1.02	.76	.83	.89	.97	1.02	.83	.90	.91	.89
More than 3 years, N=164	Mean	2.88	2.86	2.83	2.89	2.70	2.74	2.90	2.80	2.87	3.05	2.76	2.81
	SD	.87	.88	.98	.79	.95	.95	.98	.98	.99	.95	1.02	1.03
Total N=732	Mean	3.22	3.21	3.26	3.13	2.97	3.14	3.25	3.25	3.05	3.19	2.90	3.07
	SD	.93	.95	1.04	.88	.98	.99	1.04	1.04	.92	.94	1.09	1.02

**Source*: Data analysis (2006)

1 = 'Completely New', 5 = 'Not New At All'.

5.3 Descriptive Statistics

In **Section 5.2** the quality of the data was checked. This section considers the descriptive statistics for checking the normality of the items, and the correlation between the items. The first part of this section reports a normality check of the items including: the items of newness of physical surroundings, the items of repurchase utilitarian shopping value, the items of repurchase hedonic shopping value and the items of actual repurchase behaviour. Mean, standard deviation, skewness value, and kurtosis value were generated for the normality checking. Following the normality check, the second part of this section presents a correlation check of the items. The items used for the normality check were also checked in this part.

5.3.1 Normality Check

Table 5.3 below demonstrates a normality analysis of the items. The mean of the items of newness of physical surroundings ranged from 2.90 to 3.44. The mean of the items of repurchase utilitarian shopping value ranged from 2.57 to 2.73. The mean of the items of repurchase hedonic shopping value ranged from 2.55 to 2.65. The mean of the items of actual repurchase behaviour ranged from 2.45 to 2.67. The range of standard deviation on the items was from .66 to 1.09, which indicated that the respondents' opinions on the items were very close together (Churchill 1999). As the skewness and kurtosis values fall inside the range between −1.00 and +1.00, this indicates that the skewness and kurtosis values were very small on each item. Therefore, these items of the main survey were considered as normally distributed.

Table 5.3 Normality of the items, N = 732

	Mean	SD	Skewness	Kurtosis
Items of Newness of physical surroundings				
New 1: style of entrance design.	3.08	.94	.038	-.524
New 2: height of the building(s).	3.42	.97	-.028	-.685
New 3: size of the building(s).	3.44	1.02	-.015	-.763
New 4: colour of the building(s).	3.34	.96	.030	-.575
New 5: lawns and gardens.	3.05	.98	.133	-.477
New 6: style of architecture.	3.22	.92	.031	-.365
New 7: flooring and carpeting.	3.26	.96	.017	-.551
New 8: colour schemes.	3.21	.95	.088	-.625
New 9: lighting.	3.23	.97	-.088	-.454
New 10: layout design.	3.24	.96	.013	-.453
New 11: building composition.	3.20	.93	.088	-.516
New 12: play equipment.	3.13	1.02	.199	-.616
New 13: furniture.	3.21	.93	.049	-.443
New 14: style of decoration.	3.20	.95	.093	-.505
New 15: placement of facilities.	3.26	1.04	-.008	-.740
New 16: placement of play equipment.	3.13	.88	.149	-.288
New 17: displays.	2.97	.98	.162	-.525
New 18: signage design.	3.14	.99	.124	-.584
New 19: safety facilities/equipment.	3.25	1.04	.001	-.694
New 20: logo design.	3.25	1.04	-.081	-.632
New 21: price displays.	3.05	.92	-.002	-.376
New 22: opening hours.	3.19	.94	.144	-.531
New 23: design of staffs uniform.	2.90	1.09	.093	-.819
New 24: number of service staff.	3.08	1.03	.077	-.707
Items of Repurchase Utilitarian Shopping Value				
U1: practicality level.	2.57	.66	.058	-.249
U2: level of matching my needs.	2.70	.70	.023	-.335
U3: level of convenience.	2.70	.69	-.023	-.121
U4: level of waiting for services.	2.73	.76	.141	-.170
Items of Repurchase Hedonic Shopping Value				
H1: pleasure level.	2.55	.77	.182	-.240
H2: attractiveness level.	2.64	.80	.203	-.158
H3: level of excitement.	2.61	.82	.183	-.064
H4: level of interest.	2.63	.81	.151	-.261
H5: level of fun.	2.65	.82	.152	-.272
H6: satisfaction level.	2.59	.84	.115	-.384
Items of Actual Repurchase Behaviour				
RB1: money I spent in this theme park.	2.45	.70	.177	.093
RB2: my preference for this theme park.	2.65	.73	.185	.177
RB3: number of services I used in this theme park.	2.67	.74	.099	-.040
RB4: time I spent in this theme park.	2.67	.83	.165	.027

**Source:* Data analysis (2006)

5.3.2 Correlations of the Items

Appendix G presents the correlation coefficients of the items. The correlation coefficients of the items of newness of physical surroundings show a range between .30 and .79. The correlation coefficients of the Items of repurchase utilitarian shopping value show a range between .49 and .70. The correlation coefficients of the items of repurchase hedonic shopping value show a range between .61 and .80. The correlation coefficients of the items of actual repurchase behaviour show a range between .28 and .67.

Additionally, the result of the correlations among the items suggested that the item of 'the height of the buildings' and the item of 'size of the buildings' in the items of newness of physical surroundings category should be combined, as the correlation coefficient (r = .79) was over the suggested cutoff value .75 (Cavana et al. 2001). The item of 'level of interest' and the item of 'level of fun' in the items of repurchase hedonic shopping value also should be combined because a high correlation coefficient (r = .80) was reached. Once the items were shown to be normally distributed and the highly correlated items were combined, the data were then suitable for multivariate analysis techniques such as exploratory factor analysis, multiple regression analysis and mediated regression analysis utilised in this study.

5.4 Exploratory Factor Analysis

The aim of the exploratory factor analysis was to reduce the items of newness of physical surroundings (i.e. independent variable), the items of repurchase utilitarian and hedonic shopping value (i.e. mediators), and the items of actual repurchase behaviour (i.e. dependent variable). Principle component analyses were utilised to explore the factors of these four constructs. Three parts of the exploratory factor analyses are reported in this section. The first part presents the results of the principle component analysis of the independent variable (i.e. newness of physical surroundings). The second part presents the results of the

principle component analysis of the mediators (i.e. repurchase utilitarian and hedonic shopping values). The third part of this section presents the results of the principle component analysis of the dependent variable (i.e. actual repurchase behaviour). As noted in **Section 4.5** of **Chapter 4**, the factor loading, Eigenvalue, percent of variance, and coefficient Alpha were employed for judging the extracted factors.

5.4.1 The Independent Variable: Newness of physical surroundings

As the items 'height of the buildings' and 'size of the buildings', were combined, there were twenty-three items in total remaining for running principal component analysis. In terms of cross-loading between factors, 'building composition' was cross-loaded in factor 1 (.523) and factor 2 (.577). This item was therefore deleted. Results of the final principle component analysis are presented in **Table 5.4**. There was no cross-loading problem from these factors. By this principle component analysis three factors were extracted from the twenty-two items of newness of physical surroundings. Eigenvalues and the percent of variance on each factor are presented in **Table 5.4**.

In **Table 5.4**, it can be seen that the factor loading of the items on each of the three factors all matched the cutoff value of factor loading, which is less than .50, suggested in **Section 4.5** of **Chapter 4**. The Eigenvalues of these three extracted factors were all above 1 and there was 65.15% of variance in total for these three extracted factors. Both the Eigenvalue and percentage of variance satisfied the requirement for social science, in which the Eigenvalue should be greater than 1 and the total percentage of variance should greater than sixty percent (Hair et al. 1998). Additionally, all of these three extracted factors provided a good level of reliability, shown by the Cronbach's alpha value being greater than .70, which is the minimal requirement for the reliability test (DeVellis 2003; Nunnally 1978).

Table 5.4 The independent variable: newness of physical surroundings

Items	Loading
The First Extracted Factor	
New 8: colour schemes.	.77
New 6: style of architecture.	.76
New 4: colour of the building(s).	.75
New2+3: size of the building(s).	.75
New 7: flooring and carpeting.	.75
New 1: style of entrance design	.70
New 9: lighting.	.70
New 10: layout design.	.68
New 5: lawns and gardens.	.63
Eigenvalue / % of Variance/Cronbach's Alpha	11.65/52.97/.93
The Second Extracted Factor	
New 15: placement of facilities.	.71
New 14: style of decoration.	.70
New 18: signage design.	.68
New 13: furniture.	.68
New 19: safety facilities/equipment.	.63
New 12: play equipment.	.62
New 17: displays.	.61
New 16: placement of play equipment.	.61
New 20: logo design.	.61
Eigenvalue / % of Variance/Cronbach's Alpha	1.67/7.60/.92
The Third Extracted Factor	
New 24: number of the service staff.	.77
New 23: service staffs' uniform design.	.75
New 22: opening hours.	.73
New 21: price displays.	.67
Eigenvalue / % of Variance/Cronbach's Alpha	1.01/4.58/.83

† Extraction Method: Principal Component Analysis.
N = 732, Exclude Case Listwise.
Rotation Method: Varimax with Kaiser Normalization.
Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy = .96.
Bartlett's Test of Sphericity: Approx. Chi-Square=11556.55, df=231, Sig.= .000

**Source*: Data analysis (2006)

5.4.2 Relabelling the Extracted Factors

In **Section 3.4** of **Chapter 3**, the dimensions of newness of physical surroundings were conceptually developed as three dimensions including: 'aesthetic design', 'spatial layout and functionality' and 'point-of-purchase'. The refined items of newness of physical surroundings, which were achieved from the pilot survey, are presented in **Appendix C**. In **Tables 5.5**, **5.6** and **5.7** the three extracted factors achieved by the principle component analysis are compared with the three conceptual dimensions of newness of physical surroundings (See **Appendix C**).

As shown in **Table 5.4** of this chapter, for Factor 1 the principle component analysis extracted nine items of newness of physical surroundings including: 'style of entrance design', 'size of the building(s)', 'colour of the building(s)', 'lawns and gardens', 'style of architecture', 'flooring and carpeting', 'colour schemes', 'lighting' and 'layout design'. These items are very much based on the spatial aesthetics of architecture. Consequently, the *aesthetic design* (developed in **Section 3.4** of **Chapter 3**) was relabelled as *spatial aesthetics* (empirically extracted). The items between the dimension of aesthetic design and the dimension of spatial aesthetics are compared in **Table 5.5**.

Table 5.5 Aesthetic design versus spatial aesthetics

	Conceptual Developed Dimension	**The First Extracted Factor**
Dimension	**Aesthetic Design**	**Spatial Aesthetics**
Items	Style of entrance design	Style of entrance design
	Height of building	Size of the building
	Size of building	
	Colour of the building	Colour of the building
	Lawns and gardens	Lawns and gardens
	Style of architecture	Style of architecture
	Interior flooring and carpeting	Flooring and carpeting
	Colour schemes	Colour schemes
	Lighting	Lighting
	Building composition	Layout design
	Style of decoration	

**Source*: Data analysis (2006)

The items of spatial aesthetics are very similar to the items of aesthetic design. As the correlation coefficient was high (r = .79) between the items of 'height of building' and 'size of building'; these two items were combined for this study to become the item: 'size of the building' in the dimension of spatial aesthetics. Additionally, one item of the aesthetic design, 'style of decoration', was not extracted in the dimension of spatial aesthetics. The item of 'style of decoration' falls into the second factor of the principle component analysis.

For the second factor of **Table 5.4**, principle component analysis also extracted nine items of newness of physical surroundings including: 'play equipment', 'furniture', 'style of decoration', 'placement of facilities', 'placement of play equipment', 'displays', 'signage design', 'safety facilities/equipment' and 'logo design'. These items were based on the placement, décor and functionality of newness of physical surroundings. Therefore, the second factor of **Table 5.4** was relabelled from 'spatial layout and functionality' (developed in **Section 3.4** of **Chapter 3**) to 'placement, decor and functionality' (empirically extracted).

Table 5.6 Spatial layout and functionality versus placement, décor and functionality

	Conceptually Developed Dimension	**The Second Extracted Factor**
Dimension	**Spatial Layout and Functionality**	**Placement, Décor and Functionality**
Items	Placement of equipment	Placement of play equipment
	Placement of facilities	Placement of facilities
	Furniture	Furniture
	Safety facilities/equipment	Safety facilities/equipment
	Play equipment.	Play equipment
	Logo design	Logo design
	Displays	Displays
	Layout design	Style of decoration
		Signage design

**Source*: Data analysis (2006)

In the comparison between **Appendix C**, and **Table 5.4**; **Table 5.6** shows that the item of 'layout design' was not extracted as expected in the dimension of 'spatial layout and functionality', but was extracted in the dimension of 'spatial

aesthetics'. Additionally, two of the items, 'style of decoration', and 'signage design', were not developed conceptually in the dimension of 'spatial layout and functionality'. The item of 'style of decoration' was developed conceptually in the dimension of 'aesthetic design', whereas the item of 'signage design' was developed conceptually in the dimension of 'point-of-purchase'.

In the third extracted factor of the principle component analysis, four items of newness of physical surroundings were extracted including: 'price displays', 'opening hours', 'design of staff uniform' and 'number of service staff'. These are compared with the conceptually developed dimensions in **Table 5.7** below. One of the conceptually developed items, 'Signage design', was not empirically extracted in the third factor of the principle component analysis. As these extracted items were similar to the conceptual dimension of 'point-of-purchase', the label for the empirically extracted factor of the principle component analysis was the same, and there was no need for it to be relabelled.

Table 5.7 Point-of-purchase versus point-of-purchase (extracted factor)

	Conceptual Developed Dimension	**The Third Extracted Factor**
Dimension	**Point-of-Purchase**	**Point-of-Purchase**
Items	Opening hours	Opening hours
	Price displays	Price displays
	Number of service staff	Number of the service staff
	Design of staff uniform	Design of staff uniform
	Signage design	

**Source*: Data analysis (2006)

In summary, the three extracted factors may be described as follows: (1) the 'spatial aesthetics' dimension included the items such as space, building, layout, colour and lighting of a theme park; (2) the 'placement, décor and functionality' dimension focused on physical surroundings such as the placement of facilities and equipment, decoration, displays, and the functionality of new play equipment (e.g. new 360 degree roller coaster); (3) the 'point-of-purchase' dimension, which concentrated on the service encounter arising from the interaction between

service staff and visitors, and included items such as price displays, opening hours, and staff uniform.

5.4.3 The Mediators: Repurchase Utilitarian and Hedonic Shopping Values

Only one factor was extracted from the four items of repurchase utilitarian shopping value (KMO = .80, Bartlett's Test of Sphericity: Sig. = .000). The Eigenvalue (Eigenvalue = 2.81) and percent of variance give an explanation of this extracted component that explains 70.32% of variance of the measure of repurchase utilitarian shopping value. The range of the factor loading falls between .77 (U4: level of waiting for services) and .87 (U2: level of matching my needs). The reliability testing also provided a good level of scale reliability (Cronbach's Alpha = .86), with Cronbach's alpha value greater than .70.

As the items of 'level of interest' (i.e. H4) and 'level of fun' (i.e. H5) were combined (i.e. H4+5), five items were run in the principle component analysis. Similar to the repurchase utilitarian shopping value, there was only one factor extracted from the five items of the repurchase hedonic shopping value (KMO = .87, Bartlett's Test of Sphericity: Sig. = .000). The Eigenvalue (Eigenvalue = 3.79) and percent of variance giving a good explanation of this extracted component. The range of the factor loading falls between .84 (H3: level of excitement) and .90 (H4+5: level of fun). The extracted factor explains 75.72% of variance of the measure of repurchase hedonic shopping value. Reliability testing also provided a good level of scale reliability (Cronbach's Alpha = .91), with Cronbach's alpha value greater than .70.

In summary, the results of these two principle component analyses confirm that both of the items of repurchase utilitarian shopping value and the items of repurchase hedonic shopping value performed as expected in **Section 3.5** of **Chapter 3**. These two repurchase shopping values should be measured separately and the items on each of the repurchase shopping values were expected to be extracted in one factor only.

5.4.4 The Dependent Variable: Actual Repurchase Behaviour

Only one factor was extracted from the four items of actual repurchase behaviour (KMO = .74, Bartlett's Test of Sphericity: Sig. = .000). The result of this principle component analysis performed as expected in **Section 3.6** of **Chapter 3**. The Eigenvalue (Eigenvalue = 2.42) and percent of variance show that this extracted component explains 60.39% of variance of the measure of actual repurchase behaviour. The range of the factor loading falls between .54 (RB1: money I spent in this theme park) and .86 (RB3: number of services I use in this theme park). The reliability testing also provided a good level of scale reliability (Cronbach's Alpha = .77), with Cronbach's alpha value greater than .70.

In summary, this section has outlined the results of principle component analysis of the independent variable, the mediators, and the dependent variable. In the independent variable, the item of 'building composition' was deleted because it cross-loaded on two factors. Therefore, three factors were extracted from twenty-two items of newness of physical surroundings. Two of these extracted factors were relabelled including: 'spatial aesthetics', and 'placement, décor and functionality', while for the third extracted factor the label from the developed concept in **Section 3.4** of **Chapter 3** was retained as 'point-of-purchase'. Comparing these three extracted factors with the three conceptual dimensions shown in **Appendix C**, the items of these three factors were similar to the three conceptual dimensions. This comparison will be utilised for assessing the construct validity of the measures in the next section. Additionally, the items of repurchase utilitarian shopping value, the items of repurchase hedonic shopping value, and the items of actual repurchase behaviour were all extracted in one factor only on each result of the principle component analysis.

5.5 Assessment of Reliability and Validity

This section aims to assess the reliability and validity of the six measures of this study (i.e. the three measures of newness of physical surroundings, the measure of repurchase utilitarian shopping value, the measure of repurchase hedonic shopping value, and the measure of actual repurchase behaviour). The methods of assessing the reliability and validity of these six measures were described in **Section 4.5** of **Chapter 4**. This section utilises the value of item-to-total correlation and Cronbach's alpha value to check the reliability of these six measures. As the content validity of these six measures was shown to be achieved in **Chapter 3** and in **Section 4.3** of **Chapter 4**, this section concentrates on the assessment of construct validity. The *construct validity* of these six measures was checked using factor analysis and the comparison of the indices of the correlation coefficient. The first part of this section therefore checks the reliability of these six measures. The construct validity of these six measures is checked in the second part of this section.

5.5.1 Reliability

As it has been suggested that a cut-off value of the item-to-total correlation value should be greater than .50 (Hair et al. 1998), the item-to-total-correlation values of the items on each of the measures were over .50. The ranges of the item-to-total correlation value on each measure (see **Appendix H**) were as follows. The items of 'spatial aesthetics' fell between .69 and .79, the items of 'placement, decor and functionality' fell between .66 and .77, the items of 'point-of-purchase' fell between .58 and .72, the items of repurchase utilitarian shopping value fell between .61 and .69, the items of repurchase hedonic shopping value fell between .75 and .84. There were no items that could enhance the Cronbach's alpha value of these measures if any at the items of each measure were deleted.

Interestingly, as the items of actual repurchase behaviour fell between .35 and .69 (the value of item-to-total correlation), the item of Rb1 (i.e. money spent) of the actual repurchase behaviour produced a low item-to-total-correlation value

that was below .50. However, as the money spent was an important item measuring purchase behaviour in Sherman et al.'s (1997) study, the item was not deleted.

The data produced a Cronbach's alpha value greater than the cut-off value .70, suggested by Hair et al. (1998), on each measure of the main survey. The test for reliability of the measures obtained good reliability for each of the extracted factors of the newness of physical surroundings ('spatial aesthetics': Cronbach's alpha = .93, 'placement, decor and functionality': Cronbach's Alpha = .92, 'point-of-purchase': Cronbach's Alpha = .83). For repurchase shopping values, the Cronbach's alpha value of the repurchase utilitarian shopping value is .86, while the Cronbach's alpha value of the repurchase hedonic shopping value is .91. The Cronbach's alpha of the actual repurchase behaviour is .77. Therefore, the reliabilities of these six measures were achieved.

Additionally, the reliability of the measures of the repurchase utilitarian and hedonic shopping values of this study performed at very similar level of reliability compared to previous studies. Babin and Darden (1994) reported a Cronbach's alpha value of .80 for the measure of utilitarian value (7 items), and a Cronbach's alpha value of .93 for the measure of hedonic value (13 items) from a survey of 125 undergraduate students. Babin and Darden (1995) produced a scale with a Cronbach's alpha value of .76 for the measure of utilitarian value (four items), and Cronbach's alpha value of .91 for the measure of hedonic value (eleven items) from a survey of 130 shoppers. Similarly, from a survey of 276 shoppers Stoel et al. (2004) reported a Cronbach's alpha value of .63 for the measure of utilitarian value and Cronbach's alpha value .95 for the measure of hedonic value.

5.5.2 Validity

As noted in **Section 4.5** of **Chapter 4**, there were two types of validity evaluated in this study: content validity and construct validity. Firstly, content validity was achieved by developing the items of the measures from previous literature, and these items were checked by consulting with experts (see **Section 4.3** of **Chapter**

4). Secondly, in terms of achieving construct validity, **Section 4.5** of **Chapter 4** reviewed the methods of assessing construct validity and suggested that construct validity can be assessed using factor analysis and correlation analysis. Therefore, for assessing construct validity using factor analysis, **Section 5.4** of this chapter presented the results of principle component analysis that produced three extracted factors of newness of physical surroundings (i.e. 'spatial aesthetics', 'placement, décor and functionality', and 'point-of-purchase'), which were very similar to the three conceptually developed dimensions of newness of physical surroundings (i.e. 'aesthetic design, 'spatial layout and functionality', and 'point-of-purchase'). Although there were four items relocated on the extracted factors from the conceptual dimensions, most of the items of the extracted factors were highly similar to the conceptual dimensions. Hence, the construct validity of the measure of newness of physical surroundings can be considered as partially achieved. Additionally, the measure of repurchase utilitarian shopping value, the measure of repurchase hedonic shopping value, and the measure of actual repurchase behaviour were all extracted as a single dimension, performing as expected in **Section 3.5** and **Section 3.6** of **Chapter 3**. Consequently, the construct validity on each dimension was achieved.

Correlation coefficients can be utilised for assessing *convergent* and *discriminant validity*, and these two validities can be used for achieving *construct validity* (see **Section 4.5** of **Chapter 4**). **Table 5.8** below presents the correlation coefficients among the measures (i.e. three measures of newness of physical surroundings, two measures of repurchase shopping value, and one measure of actual repurchase behaviour). As the three measures of newness of physical surroundings were correlated significantly, the *convergent validity* of the measures of newness of physical surroundings was achieved. The measure of repurchase utilitarian shopping value, the measure of repurchase hedonic shopping value, and the measure of actual repurchase behaviour were not needed for assessing convergent validity because these three measures were formed as a single dimension.

In terms of assessing the *discriment validity*, **Table 5.8** below also shows that the level of correlation coefficients can be identified differently among the six

measures. The levels of correlation coefficients of the three measures of newness of physical surroundings (correlation coefficient range falls between .74 and .57) are demonstrated to be greater than their correlations with the two measures of repurchase shopping values (correlation coefficient range falls between .37 and .55), and with the measure of actual repurchase behaviour (correlation coefficient range falls between .28 and .39). The correlation coefficients of the two measures of repurchase shopping values also produced a greater value (correlation coefficient = .66) than their correlation with the measure of actual repurchase behaviour (correlation coefficient range falls between .51 and .60). Hence, based on Kline's (1994) suggestion that discriminant validity would not be achieved while the correlation value of two measures is higher than .85, the discriminant validity of the measures was achieved.

Table 5.8 Correlations among the measures, N=732

Measures	Mean	SD	1	2	3	4	5	6
1 Spatial Aesthetics	3.23	.77	1.00					
2 Placement, Decor and Functionality	3.17	.78	.74**	1.00				
3 Point-of-Purchase	3.05	.81	.57**	.69**	1.00			
4 Utilitarian Value	2.68	.59	.51**	.55**	.44**	1.00		
5 Hedonic Value	2.60	.70	.43**	.48**	.37**	.66**	1.00	
6 Repurchase Behaviour	2.61	.58	.37**	.39**	.28**	.51**	.60**	1.00

** Correlation is significant at the p<0.01 level (2-tailed).

**Source*: Data analysis (2006)

As noted in **Section 4.5** of **Chapter 4**, a final step of assessing construct validity requires a check of the nomological validity. However, as nomological validity is an assessment of the theoretical relationship between constructs, it is unable to be checked in this chapter. Nomological validity will be assessed in **Chapter 6** and it will be achieved if **Hypotheses 1a**, **1b, 2a** and **2b** are supported.

In summary, this section assesses the reliability and the validity of the six measures (i.e. the three measures of newness of physical surroundings, the measure of repurchase utilitarian shopping value, the measure of repurchase

hedonic shopping value, and the measure of actual repurchase behaviour). All of these six measures performed with good levels of Cronbach's alpha values in the range between .93 and .77. The Cronbach's alpha values for item-to-total correlation of the items of these six measures were also located in the range between .58 and .84. There were no items that required deleting to increase the reliability of these six measures. Therefore, the reliability of these six measures was achieved. Additionally, the measures of repurchase utilitarian and hedonic shopping values performed a good level of criterion-related reliability which shows a similar level of Cronbach's alpha value to those reported in the previous literature (e.g. Babin & Darden 1995, 1994). In contrast to the assessment of reliability, the assessment of validity was checked for two types: content validity and construct validity. *Content validity* was reported in **Chapter 3,** and in **Section 4.3** of **Chapter 4**. The *construct validity* was checked using the results of principle component analysis and the correlation coefficients. The results of the principle component analysis extracted similar items to the conceptual dimensions developed in **Chapter 3** (see **Appendix C**). The correlation coefficients of the six measures also confirmed achievement of convergent and discriminant validity. Therefore, both the reliability and validity of the six measures were achieved. However, the validity of measures should be tested and retested in future studies. This is because validity is one of the most difficult works to assess in any quantitative survey, and it requires more time to done.

5.6 Summary

In summary, this chapter was divided into four sections to report the checks of the quality of the data, the items and the measures. The results reported in the section on the manipulation check and in the section on descriptive statistics; show that good quality of the data and the items was achieved. The data indicate that the greater the level of renewal of theme park and of the time gap between visitors' last visit and present visit, the greater the level of newness of physical surroundings perceived by repeat visitors. The data for the items were normally distributed. In the section on exploratory factor analysis, three extracted factors

of newness of physical surroundings were obtained which were similar to the conceptual dimensions of newness of physical surroundings developed in **Appendix C**. These three extracted factors of newness of physical surroundings were labelled as: 'spatial aesthetics', 'placement, décor and functionality', and 'point-of-purchase'. The results of the principle component analysis extracted a single factor on items of repurchase utilitarian shopping value, items of repurchase hedonic shopping value, and items of actual repurchase behaviour. The results were as expected in **Section 3.5** and **Section 3.6** of **Chapter 3**: that only one factor would be extracted on each of these three measures. In the section on the assessment of the reliability and the validity of the six measures, both the reliability and validity were internally achieved. Therefore, as the quality of the data, the items, and the measures were satisfactory the data analysis could then move on to the hypotheses testing.

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CHAPTER 6.

RESULTS AND DISCUSSION

6.1 Introduction

Following the data analysis procedures designed in **Section 4.5** of **Chapter 4**, the goodness of the data and of the measures of this study were checked in **Chapter 5**. The quality of the data was checked by a manipulation check. The manipulation check of this study revealed that the greater the level of renewal of physical surroundings of a theme park, the greater the level of newness of physical surroundings visitors perceived. As well, the larger the time gap between visitors' last visit and their present visit, the greater the level of newness of physical surroundings perceived by visitors to the theme park. The normality of items of newness of physical surroundings, items of utilitarian shopping value, items of repurchase hedonic shopping value, and items of actual repurchase behaviour were checked. All of those items revealed normal distribution. Additionally, the reliability and the validity of the measures of newness of physical surroundings (which are the three extracted factors: 'spatial aesthetic', 'placement, décor and functionality', and 'point-of-purchase'), the measure of repurchase utilitarian shopping value, the measure of repurchase hedonic shopping value, and the measure of actual repurchase behaviour were achieved. Therefore, as the quality of the data is ready for the multivariate data analyses, this chapter now moves on to the testing of the hypotheses developed in **Section 3.7** of **Chapter 3**.

In this chapter, the results of two types of regression analysis designed for testing the hypotheses are reported. The first one is multiple regression analysis and the second one is mediated regression analysis. The multiple regression analysis tested the effect of the three measures of newness of physical surroundings on

the two measures (utilitarian and hedonic) of repurchase shopping values (i.e. **Hypotheses 1a** and **1b**). The mediated regression analysis examined the mediating role of the repurchase utilitarian shopping value and the repurchase hedonic shopping value in the relationship between the three extracted measures and the measure of actual repurchase behaviour (i.e. **Hypotheses 2a** and **2b**).

6.2 The Effect of the level of newness of physical surroundings on Repurchase Shopping Values

Regression results show that visitors' perception of the level of newness of physical surroundings had significant effects on their repurchase utilitarian shopping values (F = 117.12, P = .000). Approximately 33% of the explained variance in visitors' repurchase shopping values was accounted for by visitors' perception of the level of newness of the physical surroundings (R square = .33, Adjusted R square = .32). The regression results also indicate that visitors' repurchase utilitarian shopping value is positively affected by the three extracted factors (i.e. 'spatial aesthetic', 'placement, décor and functionality', and 'point-of-purchase'). From the beta coefficients presented in **Table 6.1,** it can be seen that the 'spatial aesthetics' factor (Beta-value = .191, t-value = 3.915, p = .000) contributed 19.1% to the explanation of repurchase utilitarian shopping value. The 'placement, décor and functionality' factor (Beta-value = .333, t-value = 6.028, p = .000) showed the highest level among the three extracted dimensions, contributing 33.3% to the explanation of repurchase utilitarian shopping value, whereas the 'point-of-purchase' factor (Beta-value = .101, t-value = 2.391, p = .017) indicated the lowest level among the three extracted dimensions, contributing 10.1% to the explanation of repurchase utilitarian shopping value. Additionally, the tolerance and the variance inflation factor (VIF) value also showed that there were no serious collinearity problems for this equation (see **Table 6.1**). A satisfactory tolerance value should be higher than .01, whereas a satisfactory VIF value should be lower than 10 (Hair et al. 1998). Hence, as the three extracted dimensions have been shown to be positively correlated with repurchase utilitarian shopping value,

Hypothesis 1a: Perceptions of the level of newness of physical surroundings positively affect theme park visitors' repurchase utilitarian values is **fully supported**.

Table 6.1 The results of H1a and H1b, N = 732

	Utilitarian	Hedonic	Collinearity Statistics	
	Beta/t-value	Beta/t-value	Tolerance	VIF
Spatial aesthetics	.191/3.92***	.147/2.85**	.39	2.57
Placement, décor and functionality	.333/6.03***	.314/5.36***	.30	3.30
Point-of-purchase	.101/2.39*	.072/1.61	.52	1.92
R square	.33	.24		
Adjusted R-square	.32	.24		
F value	117.12***	77.23***		

***p<.001, **p<.01, *p<.05.

**Source*: Data analysis (2006)

In short, these results indicate that the greater the level of newness of newness of physical surroundings perceived by visitors to the theme park, the greater the level of repurchase utilitarian shopping value perceived than before by the visitors. Therefore, this finding suggests that visitors' perception of repurchase utilitarian shopping value will be greater than before if theme park providers or managers increase their park's level of newness of physical surroundings, in particular in the areas of 'spatial aesthetics', 'placement, décor and functionality' and 'point-of-purchase'.

For **Hypothesis 1b**, the regression result indicates that visitors' perception of the level of newness of physical surroundings had a significant effect on their repurchase hedonic shopping values (F = 77.23, P = .000). Approximately 24% of the explained variance in visitors' repurchase hedonic shopping values was accounted for by visitors' perception of the level of newness of physical surroundings (R square = .24, Adjusted R square = .24). The regression results also indicate that visitors' repurchase hedonic shopping value is positively affected by the three extracted factors. From the beta coefficients presented in **Table 6.1**, it can be seen that the 'spatial aesthetics' factor (Beta-value = .147, t-value = 2.848, p = .005) contributed 14.7% to the explanation of the repurchase

hedonic shopping value. The 'placement, décor and functionality' factor (Beta-value = .314, t-value = 5.359, p = .000) showed the highest level among the three extracted dimensions, contributing 31.4% to the explanation of repurchase hedonic shopping value. However, the 'point-of-purchase' factor (Beta-value = .072, t-value = 1.613, p = .107) indicated the lowest level among the three extracted dimensions, contributing only 7.2% to the explanation of repurchase hedonic shopping value. Additionally, the tolerance and VIF value also show that there were no serious collinearity problems for this equation (**Table 6.1**). Hence,

Hypothesis 1b Perceptions of the level of newness of physical surroundings positively affect theme park visitors' repurchase hedonic values are **partially supported.**

In short, this means that the greater the level of newness of 'spatial aesthetics' and 'placement, décor and functionality' perceived by visitors to theme parks, the greater the level of repurchase hedonic shopping value generated.

In short, this result indicates that the greater the level of newness of newness of physical surroundings perceived by visitors to a theme park, the greater the level of repurchase hedonic shopping value perceived than before by the visitors. This finding therefore suggests that visitors' perception of repurchase hedonic shopping value will be greater than before if theme park providers or managers increase their park's level of newness of physical surroundings, in particular in the areas of 'spatial aesthetics' and 'placement, décor and functionality'.

Discussion

As noted in **Section 3.7** of **Chapter 3** little is known about the effect of the level of newness of physical surroundings on repurchase shopping values. However, the two findings reported shed more light on this effect, especially as the analyses were performed in a similar way to those in previous studies (see **Table 6.2**). For the first finding, **Hypothesis 1a** indicates that theme park visitors' repurchase utilitarian shopping value is positively affected by visitors' perception

of the level of newness of physical surroundings. This hypothesis generated a very similar finding to Stoel et al.'s (2004) finding (See **Table 6.2** of this chapter). Stoel et al.'s study found that shoppers' satisfaction with mall attributes positively affected (26% of explanation) their perception of utilitarian shopping value. The result for the test of **Hypothesis 1a** indicates a similar level of explanation of the effect of physical surroundings on utilitarian shopping value to that in Stoel et al.'s study. The theme park visitors' perception of the level of newness of physical surroundings positively (32% of explanation) affected their repurchase utilitarian shopping value.

For the second finding **Hypothesis 1b** shows that theme park visitors' repurchase hedonic shopping value is positively affected by visitors' perception of the level of newness of physical surroundings. This finding is similar to those of Stoel et al. (2004), Wakefield and Blodgett (1999), Wakefield and Baker (1998), Yoo et al. (1998) and Wakefield and Blodgett (1996) (see **Table 6.2** of this chapter). In these studies aesthetics, design, layout, facilities and tangible services strongly affected consumers' hedonic-related constructs such as satisfaction and excitement in 'facility-driven' leisure in particular. The finding of the test of **Hypothesis 1b** is consistent with those findings, indicating that the greater the level of newness of 'spatial aesthetic', and 'placement, décor and functionality' of a theme park, the greater the level of repurchase hedonic shopping value visitors perceived. However, a similar effect of the level of newness of 'point-of-purchase' on repurchase hedonic shopping value was not supported.

Table 6.2 The previous findings of the effect of physical surroundings on shopping values-related constructs

References	Setting	Independent Variables	Dependent Variables	Results
The Effect of Physical Surroundings on Repurchase Utilitarian Shopping Value				
Stoel et al. 2004	Shopping Mall	Satisfaction with Mall Attributes	Utilitarian Shopping Value	Supported with Positive Relationship (Coefficient .26)
The Effect of Physical Surroundings on Repurchase Hedonic Shopping Value				
Wakefield & Blodgett (1996)	Football Stadium (FS), Baseball Stadium (BS) and Casino (C).	Layout and Aesthetics	Perceived Quality (e.g. terrible-great).	Supported with Positive Relationship Coefficient in Layout: FS=.19, BS=.26, and C=.19. Coefficient in Aesthetics: FS=.40, BS=.26, C=.29
Wakefield & Baker (1998)	Shopping Mall	Perception of physical surrounding of malls (design, music, layout, light/temp and décor)	Excitement	Supported with Positive Relationship (Coefficient .14). Coefficient in design=.32, in music=.16, in layout=.17, in light/temp=.14, and in décor=.9.
Yoo et al. (1998)	Department Stores	Perception of Store Facilities	Positive Emotion	Supported with Positive Relationship (Coefficient .11)
Wakefield & Blodgett (1999)	Hockey Pitch (HP), Cinema (C), and Recreation Center (RC)	Perception of Tangible Services	Excitement	Supported with Positive Relationship (Coefficient in HP=.49, in C=.51, and in RC=.45).
Stoel et al. 2004	Shopping Mall	Satisfaction of mall attributes	Hedonic Shopping Value	Supported with Positive Relationship (Coefficient .31)

**Source*: Literature review

Theme park visitors' repurchase hedonic shopping value was not affected by their perception of newness of 'point-of-purchase' such as the number of service staff, opening hours, price display and the design of staff uniform.

Therefore, as both **Hypotheses 1a** and **1b** were supported, these two findings have theoretically and empirically upgraded the understanding of the effect of the level of newness of physical surroundings on repurchase shopping values in theme parks in particular.

6.3 The Mediating Role of Repurchase Shopping Values in the Relationship between the Perception of the Level of Newness of Physical Surroundings and Actual Repurchase Behaviour

Based on the three regression equations designed in **Section 4.5** of **Chapter 4**, **Hypotheses 2a** and **2b** were tested in three steps, which were suggested by Baron and Kenny (1986). This study examined, firstly, the effect of the three extracted factors of newness of physical surroundings on the repurchase shopping values (i.e. repurchase utilitarian and hedonic shopping values) in the first regression equation (i.e. **Hypotheses 1a** and **1b**); secondly, the effect of the repurchase shopping values on the actual repurchase behaviour in the second regression equation; and thirdly, the effect of the three extracted factors of newness of physical surroundings on actual repurchase behaviour mediated by the repurchase utilitarian and hedonic shopping values in the third regression equation. The conditions of achieving a mediated relationship were suggested by Baron and Kenny (1986) that: the first and the second regression equation have to be significant. Third regression equation is significant if the effect of the independent variable (i.e. newness of physical surroundings) on the mediator (i.e. repurchase utilitarian and hedonic shopping values of this study) is insignificant, but the effect of the mediator on the dependent variable (i.e. actual repurchase behaviour) is significant.

For **Hypotheses 2a**, **Table 6.3** shows that the first equation (F = 77.23, p = .000), and the second equation (F = 46.80, p = .000) are significant. For the third equation (F = 70.68, p = .000) **Table 6.3** also shows that the effect of the three extracted factors of newness of physical surroundings ('spatial aesthetic': Beta-value = .097, t-value = 1.897, p = .058; 'placement, décor and functionality': Beta-value = .099, t-value = 1.682, p = .093; 'point-of-purchase': Beta-value = -.028, t-value = -.630, p = .529) on actual repurchase behaviour is weaker than the effect of the repurchase utilitarian shopping value (Beta-value = .419, t-value = 10.928, p = .000) on actual repurchase behaviour. The tolerance (between .30 and .68) value and VIF value (between 1.48 and 3.83) of this mediated regression analysis also show that there were no serious collinearity problems on this mediated regression analysis. Therefore,

Hypothesis 2a: Perception of the level of newness of physical surroundings affects actual repurchase behaviour via theme park visitors' repurchase utilitarian shopping value is **fully supported.**

Interestingly, the 'point-of-purchase' factor shows no significance in the second equation (Beta-value = .015, t-value = .312, p = .755). This factor does not directly affect actual repurchase behaviour. In the third equation, this factor indirectly affects actual repurchase behaviour with a negative relationship via repurchase utilitarian shopping value. This means that the lower the level of newness or renewal for the 'opening hours', the 'price display', the 'number of service staff' and the 'design of service staffs' uniform', the greater the level of repurchase utilitarian shopping value, and actual repurchase behaviour perceived by repeat visitors.

Table 6.3 The comparison of the regression equations of hypothesis 2a, N=732

	The First Equation	**The Second Equation**	**The Third Equation**
	Dependent Variable: Repurchase Utilitarian Shopping Value	**Dependent Variable:** Actual Repurchase Beahviour	**Mediator:** Repurchase Utilitarian Shopping Value **Dependent Variable:** Actual Repurchase Behaviour
	Beta/t-value	Beta/t-value	Beta/t-value
Spatial aesthetics	.191/3.92***	.177/3.249***	.097/1.90
Placement, decor and functionality	.333/6.03***	.238/3.864***	.99/1.68
Point-of-purchase	.101/2.39*	.015/.312	-.028/-.63
Utilitarian			.416/10.87***
R-square	.33	.16	.28
Adjusted R-square	.32	.16	.28
F value	117.12***	46.800***	70.92***

***p<.001, **p<.01, *p<.05.

**Source*: Data analysis (2006)

For testing **Hypothesis 2b**, **Table 6.4** shows that the first equation (F = 77.23, p = .000) and the second equation (F = 46.80, p = .000) are significant. The third equation (F = 106.76, p = .000) also shows that the effect of the three extracted factors of newness of physical surroundings ('spatial aesthetic': Beta-value = .099, t-value = 2.088, p = .037; 'placement, décor and functionality': Beta-value = .073, t-value = 1.323, p = .186; 'point-of-purchase': Beta-value = -.024, t-value = -.577, p = .564) on actual repurchase behaviour is weaker than the effect of the repurchase hedonic shopping value (Beta-value = .529, t-value = 15.696, p = .000) on actual repurchase behaviour. The tolerance (between .30 and .75) value and VIF value (between 1.33 and 3.37) of this mediated regression analysis also show that there were no serious collinearity problems on this mediated regression analysis. Therefore,

Hypothesis 2b: Perception of the level of newness of physical surroundings affects actual repurchase behaviour via theme park visitors' repurchase hedonic shopping value is **fully supported**.

Interestingly, the 'point-of-purchase' factor shows no significance across the first equation (Beta-value = .072, t-value = 1.61, p = .107), and the second equation (Beta-value = .015, t-value = .312, p = .755). The 'point-of-purchase' factor does not directly affect repurchase hedonic shopping value and actual repurchase behaviour. In the third equation, this factor indirectly affects actual repurchase behaviour with a negative relationship via repurchase hedonic shopping value. This means that the lower the level of newness or renewal on the 'opening hours', the 'price display', the 'number of service staff' and the 'design of service staffs' uniform', the greater the level of repurchase hedonic shopping value and actual repurchase behaviour perceived by repeat visitors.

Table 6.4 Comparison of the regression equations for hypothesis 2b, N=732

	The First Equation	**The Second Equation**	**The Third Equation**
	Dependent Variable: Repurchase Hedonic Shopping Value	**Dependent Variable:** Actual Repurchase Beahviour	**Mediator:** Repurchase Hedonic Shopping Value **Dependent Variable:** Actual Repurchase Behaviour
	Beta/t-value	Beta/t-value	Beta/t-value
Spatial aesthetics	.147/2.85**	.177/3.249***	.099/2.88*
Placement, decor and functionality	.314/5.36***	.238/3.864***	.072/1.32
Point-of-purchase	.072/1.61	.015/.312	-.024/-.58
Hedonic			.529/15.70***
R-square	.24	.16	.37
Adjusted R-square	.24	.16	.37
F value	77.23***	46.80***	106.76***

***p<.001, **p<.01, *p<.05.

† *Source*: Data analysis (2006)

Discussion

In **Section 3.7** of **Chapter 3**, the relationship between the perception of the level of newness of physical surroundings, repurchase utilitarian shopping value, repurchase hedonic shopping value, and actual repurchase behaviour were conceptualised as the S-O-R paradigm. The perception of the level of newness of physical surroundings was the *stimulus* variable. The repurchase utilitarian and hedonic shopping values were the *organism* variable. The actual repurchase behaviour was the *response* variable. In terms of this S-O-R paradigm the previous studies found that pleasure and arousal (Sherman et al. 1997), positive and negative emotion (Yoo et al. 1998), satisfaction (Wakefield & Blodgett 1996), excitement (Wakefield & Blodgett 1999), positive affect (Hightower et al. 2002), and utilitarian and hedonic shopping values (Stoel et al. 2004; Babin & Attaway 2000) mediated the relationship between the perception of physical surroundings and consumers' behaviour response such as behaviour intention or purchase behaviour. Therefore, as **Hypotheses 2a** and **2b** was significantly supported, this study has generated similar results to those in previous studies (e.g. Stoel et al. 2004; Hightower et al. 2002; Babin & Attaway 2000; Wakefield & Blodgett 1999; Wakefield & Baker 1998; Yoo et al. 1998; Sherman et al. 1997) by confirming that the relationship between the perception of the level of newness of physical surroundings and actual repurchase behaviour can be mediated by repurchase utilitarian shopping value and repurchase hedonic shopping value. For the testing of **Hypothesis 2a** and **2b** it was also found that the repurchase hedonic shopping value had a stronger effect than the repurchase utilitarian shopping value on the relationship between theme park visitors' perception of the level of newness of physical surroundings and actual repurchase behaviour. Thus, these results confirm the findings of these previous studies, in particular Stoel et al.'s (2004) finding that hedonic shopping value (significance) is stronger than utilitarian shopping value (no significance) in mediating the relationship between shoppers' satisfaction of mall attribute and repurchase intention.

6.4 Summary

In summary, this chapter has reported the results of the testing of the two major hypotheses developed in **Section 3.7** of **Chapter 3**. **Hypotheses 1a** and **1b** were supported. **Hypothesis 1a** suggested that the greater the level of newness of 'spatial aesthetics', 'placement, décor and functionality', and 'point-of-purchase' perceived by visitors to theme parks, the greater the level of repurchase utilitarian shopping value visitors perceived. Similarly, in **Hypothesis 1b** the result suggested that the greater the level of newness of 'spatial aesthetics' and 'placement, décor and functionality' ('point-of-purchase' was not supported significantly) perceived by visitors to theme parks, the greater the level of repurchase hedonic shopping value visitors perceived. Both of the results of **Hypotheses 1a** and **1b** confirmed the findings of previous studies (e.g. Stoel et al. 2004; Wakefield & Blodgett 1999; Wakefield & Baker 1998; Yoo et al. 1998; Wakefield & Blodgett 1996). These previous studies found that the effect of physical surroundings positively affect consumers' utilitarian and hedonic values. Additionally, in **Hypotheses 2a** and **2b**, the results suggested that the relationship between the perception of the levels of newness of physical surroundings and the actual repurchase behaviour was mediated by the repurchase utilitarian shopping value and the repurchase hedonic shopping value. In terms of the S-O-R paradigm, the results of testing **Hypotheses 2a** and **2b** confirmed the findings of previous studies (i.e. Stoel et al. 2004; Hightower et al. 2002; Babin & Attaway 2000; Wakefield & Blodgett 1999; Wakefield & Baker 1998; Yoo et al. 1998; Sherman et al. 1997). These studies found that the relationship between the perception of physical surroundings and consumers' behavioural responses was mediated by utilitarian and hedonic shopping values (e.g. Stoel et al. 2004; Babin & Attaway 2000).

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CHAPTER 7.

CONCLUSIONS

7.1 Introduction

In **Section 1.1** of **Chapter 1**, the research background of this study indicated that providing newness of physical surroundings is a marketing strategy of a service firm to differentiate it from its rivals in particular in 'facility-driven' leisure services (Hightower et al. 2002; Zeithaml & Bitner 2000; Pine & Gilmore 1999). Therefore, because a theme park is one of the highest 'facility-driven' (Turley & Fugate 1992), and 'hedonic orientation' leisure services (Wakefield & Blodgett 1999, 1994), theme park managers or providers are attracting visitors by providing newness of physical surroundings (Scheurer 2004; Thach & Axinn 1994; McClung 1991). However, from an examination of the current literature little appeared to be known about the effect of the level of newness of physical surroundings on theme park visitors' repurchase shopping values and actual repurchase behaviour. This study therefore utilised the theme park as an example of 'facility-driven' leisure services to explore the effect of the level of newness of physical surroundings on theme park visitors' repurchase shopping values and actual repurchase behaviour. Four research gaps were identified in **Section 1.2** of **Chapter 1** as follows:

(1) Little is known about measuring the perception of the level of newness of physical surroundings, particularly in theme parks.

(2) The perception of the level of newness of physical surroundings has not been explored in current environmental psychology models, particularly in service marketing.

(3) The concept of 'shopping values' has not been explored in association with the perception of the level of newness of physical surroundings.

(4) Actual repurchase behaviour has not been explored in relation to repeat consumers' perception of the level of newness of physical surroundings.

In order to fill in these four research gaps this study focused on two aims. The first aim was to develop a method measuring theme park visitors' perceptions of the level of newness of physical surroundings; and the second aim was to explore the effect of the level of newness of physical surroundings on repurchase shopping values, and actual repurchase behaviour of theme park visitors.

In this chapter, research conclusions are drawn and the theoretical, methodological, and managerial implications are discussed. The limitations of this study are outlined and directions for future research are proposed.

7.2 Research Conclusions

Based on the two research aims of this study, two research outcomes are addressed.

- **The method measuring theme park visitors' perceptions of the level of newness of physical surroundings**

As noted in **Section 2.2** of **Chapter 2**, newness measurement has been explored in the current marketing research (e.g. Lafferty et al. 2004; Tatikonda & Montoya-Weiss 2001; Johannessen et al. 2001). This study adopted Tatikonda and Montoya-Weiss's (2001) method to measure the perception of the level of newness. Tatikonda and Montoya-Weiss distinguished the level of newness from 'completely new' to 'not new at all'. As measuring the level of newness requires comparing visitors' last perception with their present perception, repeated visitors were needed for this measurement. Additionally, this study

adapted the items of physical surroundings from previous relevant literature based on three conceptual dimensions including (1) aesthetic design, (2) spatial layout and functionality and (3) point-of-purchase. The items adapted on each dimension are presented in **Appendix A**.

A total of 732 usable questionnaires were used for data analysis. Questions of newness of physical surroundings were extracted in three factors: 'spatial aesthetic', 'placement, decor and functionality' and 'point-of-purchase'. The manipulation check revealed that the measurement method of this study is able to capture the level of newness of physical surroundings from the three selected theme parks. In reliability, the three extracted factors of newness of physical surroundings showed good Cronbach's alpha on each of the extracted measures; 'spatial aesthetic= .93, 'placement, décor and functionality'=.92, and 'point-of-purchase'=.83. In validity, the measures of newness of physical surroundings achieved content validity by developing the items from literature (see **Appendix A**). The three extracted factors of newness of physical surroundings also achieved construct validity by performing an exploratory factor analysis (see **Table 5.4** of **Chapter 5**) and the convergent and discriminant validity (see **Table 5.8** of **Chapter 5**). Additionally, as normological validity is a final step to achieve construct validity, it can be supported if 'the relationship between measures representing theoretically related constructs (Churchill 1978, p.72).' The three extracted factors of newness of physical surroundings from an exploratory factor analysis performed very similar to the three conceptually developed dimensions and the four hypotheses were supported. Normological validity of this study is therefore achieved. Thus, the method of measuring the level of newness of physical surroundings has been successfully developed. Even though internal validity is achieved in this study, the external validity might be questionable due to other 'facility-driven' leisure services have not been designed in the sampling method. This limitation will be stated in detail in **Section 7.4**.

- **The effect of the level of newness of physical surroundings on repurchase utilitarian shopping value, repurchase hedonic shopping value, and actual repurchase behaviour**

In order to explore the effect of the level of newness of physical surroundings on repurchase utilitarian shopping value, repurchase hedonic shopping value, and actual repurchase behaviour, this study composed four hypotheses to test this effect. These hypotheses included:

Hypothesis 1a: Perceptions of the level of newness of physical surroundings positively affect theme park visitors' repurchase utilitarian values.

Hypothesis 1b: Perceptions of the level of newness of physical surroundings positively affect theme park visitors' repurchase hedonic values.

Hypothesis 2a: Perception of the level of newness of physical surroundings positively affects actual repurchase behaviour via theme park visitors' repurchase utilitarian shopping value.

Hypothesis 2b: Perception of the level of newness of physical surroundings positively affects actual repurchase behaviour via theme park visitors' repurchase hedonic shopping value.

As the results supported these four hypotheses, this study provides empirical evidence to show that the perception of the level of newness of physical surroundings affected theme park visitors' repurchase shopping values and actual repurchase behaviour. Specifically, theme park visitors' perceptions of the level of newness of physical surroundings were found to affect their repurchase utilitarian shopping value (**Hypothesis 1a**), and hedonic shopping value (**Hypothesis 1b**). The 'placement, décor and functionality' factor had the greatest effect on visitors' repurchase utilitarian shopping value, hedonic shopping value, and repurchase behaviour. The relationship between the perception of the level of newness of physical surroundings and actual repurchase behaviours was shown to be mediated by repurchase utilitarian

shopping value (**Hypothesis 2a**), and repurchase hedonic shopping value (**Hypothesis 2b**).

In summary, the aims of this study have been achieved and the research questions have been answered. This study developed successfully a valid method measuring the perception of the level of newness of physical surroundings. The results supported the four hypotheses developed in **Chapter 3** that test the effect of the level of newness of physical surroundings on repurchase utilitarian shopping value, repurchase hedonic shopping value, and actual repurchase behaviour. Therefore, the two research aims of this study achieved.

7.3 Implications

The implications of this study can be divided into theoretical implications, methodological implications, and managerial implications. This section discussed the implications based on these three types of implications follow by: theoretical implications, methodological implications, and managerial implication.

7.3.1 Theoretical Implications

There are four theoretical implications of this study that contribute to the understanding of the effect of the level of newness of physical surroundings on repurchase shopping values and actual repurchase behaviour.

- **Adding the concept of newness of physical surrounding into the S-O-R model of environmental psychology, in particular in service marketing**

This study integrated the concept of newness and the concept of physical surroundings as the concept of newness of physical surroundings to associated with theme park visitors repurchase shopping values and actual repurchase behaviour and designed these concepts based on the S-O-R paradigm. Further

research can use the conceptual model developed in this study to measure the effect of newness of physical surroundings on consumers' repurchase behaviour.

- **Increased understanding of the perceptions of the level of newness of physical surroundings in the S-O-R related models, in particular in theme park services**

In **Section 1.2** of **Chapter 1** and **Section 2.6** of **Chapter 2**, three environmental psychology models were reviewed. These were Mehrabian and Russell's (1974) Stimulus-Organism-Response (S-O-R) model, Baker's store environment model (Baker et al. 1994; Baker et al. 1992), and Bitner's (1992) servicescape model. However, these three environmental psychology models have not been explored in relation to the concept of newness of physical surroundings, in particular in theme park services. The result of this study showed that the greater the level of newness of physical surroundings, the greater the level of repurchase utilitarian and hedonic shopping values perceived by theme park visitors. The relationship between the perceived levels of newness of physical surroundings and actual repurchase behaviour was mediated by repurchase utilitarian and hedonic shopping values individually.

Therefore, based on the results achieved, this study successfully explored the level of newness of physical surroundings and increased our understanding of the level of newness of physical surroundings in relation to the environmental psychology models. This study increased understanding of Mehrabian and Russell's (1974) Stimulus-Organism-Response (S-O-R) model by measuring specific newness of physical surroundings. It also increased understanding of Baker's store environment model (Baker et al. 1994; Baker et al. 1992) by adding the concept of newness to measure specific newness of physical surroundings. Additionally, this study provided empirical evidence to Bitner's (1992) servicescape model by associating with newness measurement in consumers' perception of servicescape.

- **Increased understanding of the concept of 'shopping values' in relation to the perceptions of the level of newness of physical surroundings**

This study added to the concept of 'shopping values' and the concept of repurchase behaviour by applying the level of newness of physical surroundings. In previous 'shopping values' studies (e.g. Stoel et al. 2004), some effort was made to investigate the relationships among service environment, shopping values and purchase intention, but the effect of newness of physical surroundings on shopping values and repurchase behaviour remained unclear. However, the results of this study revealed that the greater the level of newness of physical surroundings perceived by visitors to theme parks, the greater the level of repurchase utilitarian and hedonic shopping values visitors perceived. Therefore, this result increased our understanding of the concept of 'shopping value' in relation to the perception of the level of newness of physical surroundings.

- **Increased understanding of the concept of 'actual repurchase behaviour' in relation to the perception of the level of newness of physical surroundings**

In **Section 1.2** of **Chapter 1**, it was noted that the measurement of the perception of the level of newness of physical surroundings has not been explored with respect to the concept of 'actual repurchase behaviour', particularly in the S-O-R related models of environmental psychology (e.g. Mehrabian and Russell's S-O-R model, Baker's store environment model or Bitner's servicescape model). This study, however, has increased understanding of the concept of 'actual repurchase behaviour' by testing it as a response variable in the S-O-R paradigm. This study found that the greater the level of newness of physical surroundings perceived by repeat theme park visitors, the greater the level of repurchase utilitarian and hedonic shopping value and actual repurchase behaviour demonstrated by those visitors. This empirical evidence supported the effect of the perception of the level of newness of physical surroundings on repurchase utilitarian shopping value; repurchase hedonic shopping value; and actual repurchase behaviour.

7.3.2 Methodological Implications

This study has two methodological implications.

- **Upgrading of the method of the measurement of the level of newness of physical surroundings**

Although Widing et al. (2003) indicated that serving a repeat consumer cost less than serving a new consumer; the current literature has paid little attention to the measurement of repeat theme park visitors' perception of the level of newness of physical surroundings. For example, the earlier studies (e.g. Johnson et al. 2004; Mayer & Johnson 2003; Hightower et al. 2002; Yoo et al. 1998; Baker et al. 1994) measured consumers' perception of environmental stimuli empirically, but the method of measurement of the perception of the level of newness of physical surroundings was not explored. A previous study (Grossbart et al. 1975) did measure environmental newness with a semantic differential type of scale (e.g. old and new), but the specific surroundings (e.g. new painting and new layout) were not identified in their studies. In addition, in some psychiatric studies (Whitehead et al. 1984; Holahan & Saegert 1973) the level of newness of psychiatric wards was measured, but the methods utilised for capturing the perception of the level of newness of physical surroundings were incorrectly designed. They did not evaluate the perception of the level of newness of physical surroundings from the same respondent. This study, therefore, measured the level of newness of physical surroundings successfully by comparing repeat theme park visitors' previous perception with their present perception of the level of newness of specific physical surroundings. This perception comparison has contributed to increasing the understanding of the measurement of the perception of the level of newness of physical surroundings in two perspectives: sampling and measuring questions.

In order to provide valid measures of newness of physical surroundings, this study has developed items based on two requirements (i.e. renewable and visible) of newness of physical surroundings. The method of designing questions utilised in this study has extended understanding of question design beyond that used in

the previous studies for measuring environmental stimuli (e.g. Johnson et al. 2004; Mayer & Johnson 2003; Hightower et al. 2002; Yoo et al. 1998; Baker et al. 1994), as well as the item design used in previous studies for assessing the level of newness of physical surroundings (Whitehead et al. 1984; Grossbart et al. 1975; Holahan & Saegert 1973).

Additionally, the important techniques developed in this study for measuring the perception of the level of newness of physical surroundings can be summarised including: comparing visitors' last perception and their present perception, distinguishing the level of newness from 'completely new' to 'not new at all', repeat visitors are required, constructing the measuring items specifically, and utilising manipulation check to increase the validity of the measure. These important techniques increased the validity of the measurement of the perception of the level of newness of physical surroundings.

- **Upgrading of the measurement of 'shopping values' in relation to the measurement of the level of newness of physical surroundings**

The exploration of the effect of the perceived level of newness of physical surroundings on repurchase utilitarian and hedonic shopping values, and actual repurchase behaviour in this study has a methodological implication. The method of experience comparison has extended the measurement of repurchase utilitarian and hedonic shopping values with the perception of the level of newness of physical surroundings from the current 'shopping values' studies (e.g. Stoel et al. 2004; Babin & Attaway 2000; Griffin et al. 2000; Babin & Darden 1995). These current studies measured consumers' present perception of shopping values, but repeat consumers perceptions of repurchase utilitarian and hedonic shopping values was little measured, particularly in association with consumers' perceived level of newness of physical surroundings. Therefore, this study increased understanding of the measurement of 'shopping values' in relation to the measurement of the level of newness of physical surroundings.

7.3.3 Managerial Implications

As noted in **Section 1.1** of **Chapter 1**, previous researchers (Hightower et al. 2002; Gupta & Vajic 2000; Pine & Gilmore 1999, 1998) have suggested that the physical surroundings of services ought to be refreshed periodically in order to improve the marketing performance of leisure services. In **Section 1.1** of **Chapter 1** it was also noted that encouraging repeat visits through utilising new rides has become an important strategy for theme park management (Roddewing et al. 1986). However, not much has been reported about repeat theme park visitors' perception of the level of newness of physical surroundings in the current literature. Providers of 'facility-driven' leisure services will be unable to renewness of physical surroundings at the right time without having an accurate estimate of the level of newness of the theme park's physical surroundings. Consequently, they will be unable to maximise their profit margins if physical surroundings are not renewed at the right time. This study has provided the method and developed a measure for providers of 'facility-driven' leisure services to assess the level of newness of their physical surroundings. The method and the measure utilised in this study could assist managers or providers of 'facility-driven' leisure services to renew or install their physical surroundings at more optimal times. The author of this study suggests that theme park providers should use the questionnaire developed in this study to assess the effect of the level of newness of physical surroundings on their visitors' repurchase behaviour before renewing their physical surroundings.

7.3.4 Marketing Implications

In terms of marketing implication, the author of this study suggests that theme park providers may identify their marketing positions by utilising visitors' perception of the research constructs (i.e. newness of physical surroundings, repurchase shopping values and actual repurchase behaviour). **Figure 7.1** suggests a market positions matrix for guiding marketing segmentmentation using the research constructs (i.e. newness of physical surroundings, repurchase shopping values and actual repurchase behaviour) of this study as the three dimensions of the matrix. Based on the research constructs of this study

marketing movements are directed for improving a theme parks' market performance. These four market positions are labelled based on the level of newness of physical surroundings, the level of utilitarian and/or hedonic shopping values and the level of actual repurchase behaviour. These are 'Underdog', 'Day Dream', 'Rising Sun' and 'Benchmark'.

The four marketing positions show, firstly, an 'Underdog' market position, which indicates that a theme park has a low level of newness of physical surroundings, repurchase shopping values, and actual repurchase behaviour. Secondly, a 'Day Dream' market position indicates that a theme park has low level of new physical surrounding and shopping values, but has a high level of actual repurchase behaviour. Thirdly, a 'Rising Sun' market position indicates that a theme park has high level of newness of physical surroundings and repurchase shopping values, but has low level of actual repurchase behaviour. Finally, a 'Benchmark' market position indicates that a theme park has high level of new physical surrounding, repurchase shopping values, and actual repurchase behaviour. Those four market positions are moveable as the level of those three concepts increases or decreases. The arrow lines show the possible directions for each market position. For example, a 'Rising Sun' market position could move to a 'Benchmark' market position as its level of actual repurchase behaviour increases. In contrast, a 'Rising sun' market position also could move down to an 'Underdog' market position as its level of newness of physical surroundings decreases.

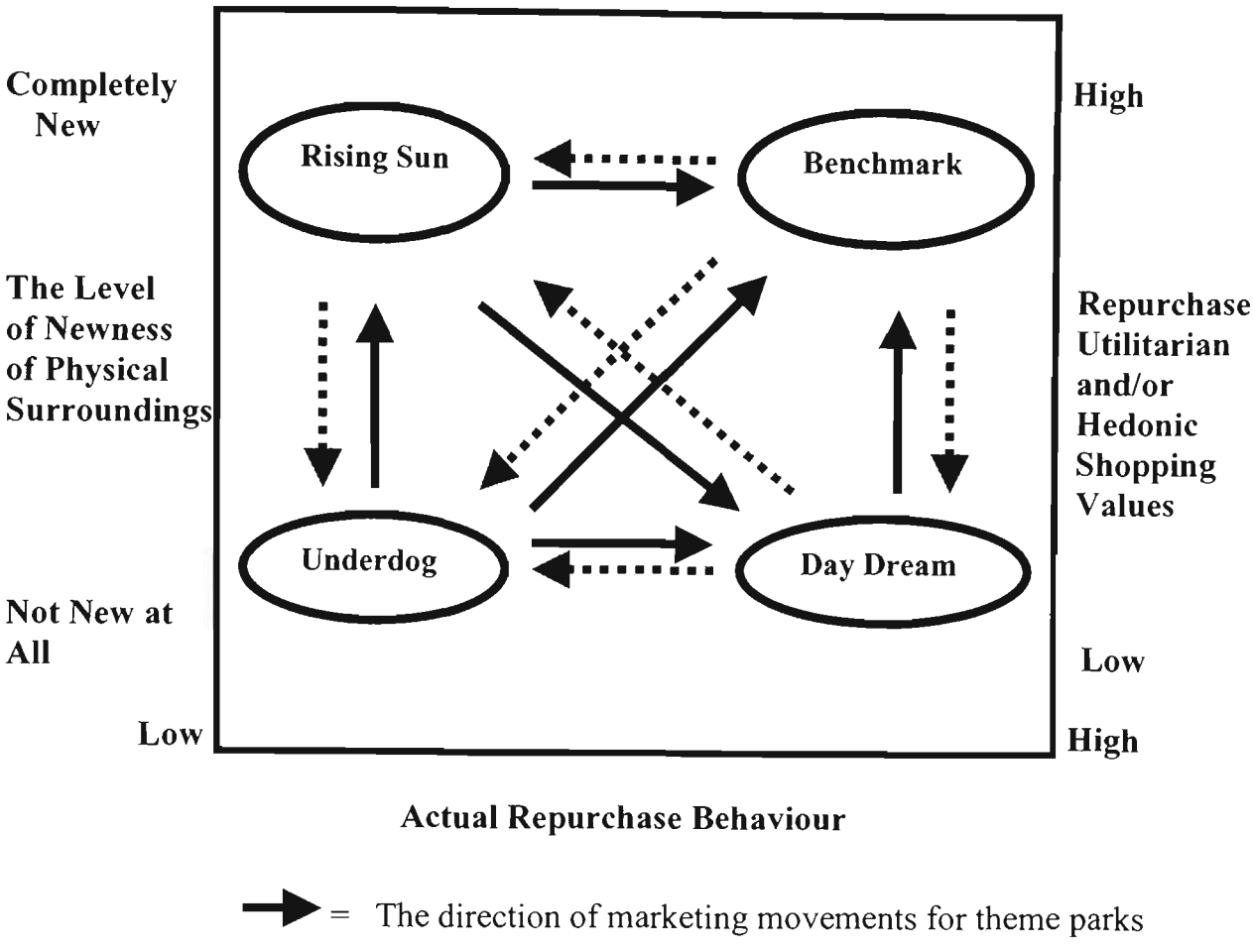

Figure 7.1 The effect of newness of physical surroundings on Marketing Position†

† Source: Developed by the author.

Based on the four market positions demonstrated in **Figure 7.1,** marketing movements are suggested that could improve a theme park's marketing performance at each market position.

- **Improving marketing promotion plus providing newness of physical surroundings**

When a theme park is in an 'Underdog' market position, a manager must make an essential decision to exit the market or to renew their physical surroundings and marketing promotion. Choosing a continuation strategy or move to better market position would require a large investment in both physical surroundings and promotion scheme.

- **Offering newness of physical surroundings**

A theme park in a 'Day Dream' market position is similar to one in the 'Underdog' market position in one aspect. This type of park might prefer to invest in a marketing promotion scheme (e.g. Christmas promotion) rather than in newness of physical surroundings. However, as theme/amusement park service is identified as one of the 'facility-driven' leisure service industries and physical surroundings play a significant role in theme parks market performance (Turley and Fugate 1992), the result of this study suggests that this type of park should re-invest in newness of physical surroundings rather than focus only on marketing promotion schemes. Indeed, this type of park might have a common problem, which is 'inconsistent sales'. This is because 'inconsistent sales' depend on the efforts of marketing promotion. Movement from this market position (i.e. Day Dream) could easily move to the 'Underdog' market position if this type of park's marketing promotion scheme fails. For example, impact of word-of-mouth from repurchasing visitors could generate negative marketing results and influence potential visitors who intend to revisit this type of theme park.

- **Improving marketing promotion**

A theme park in the 'Rising Sun' market position should reinforce its marketing promotion by advertisement or public promotion. A very practical example of a 'Rising Sun' marketing position in this study is Yamay. One of Yamay's managers explained that Yamay was a new theme park in the Taiwan theme park market. The park management cooperated strategically with one of the national television channels during the summer of 2004. Based on this strategy, their annual visits increased from 1,207,168 visits (Taiwan Tourism Bureau 2003) to 1,459,627 visits (Taiwan Tourism Bureau 2004). However, a theme park in the 'Rising Sun' market position still needs to pay attention to visitor perception of the level of newness of physical surroundings. Ignoring the effect of newness of physical surroundings could lead to a decrease in the marketing performance of this type of park.

However, it should be noted that a downturn of market position of theme park from 'Rising Sun' to 'Day Dream' or 'Underdog' should be avoided. A downturn in this direction may cause a decrease in market performance.

- **Innovation**

A theme park in the 'Benchmark' market position could be a market leader. This type of park generally demonstrates some key competitive strategies in the market (e.g. brand loyalty or level of innovation) that other parks might find difficult to replicate. Both schemes for renewing physical surroundings and marketing promotion of these types of parks successfully attract visitors to revisit them. Adopting Pine and Gilmore's (1998) suggestion that leisure-related services (e.g. theme restaurant, resort hotel and theme park) need to refresh their consumer's experience frequently, service innovation or renewed service could be one of the most powerful strategies to maintain this type of park in the 'Benchmark' market position. A famous example of this type of park is Disney World (including Disneyland). It is continually offering attractions to refresh or renew visitors' experiences (Pine & Gilmore 1999). Another example of this type of park is Janfusun in Taiwan. Janfusun has utilised local coffee products to develop a new theme, including introduction to coffee cultures around the world, types of coffee and different style of coffee shops. This new theme is intended to refresh their visitors' visiting experience.

In summary, this study has theoretically increased understanding of the perception of the level of newness of physical surroundings in the S-O-R related models. The understanding of the concepts of 'shopping values' and 'actual repurchase behaviour' also has been increased by measuring with the perception of newness of physical surroundings. This study upgraded the method of the measurement of the level of newness of physical surroundings. A newness of physical surroundings has to be based on two requirements: renewable and visible. And another methodological implication also addressed that this study increased understanding of the measurement of 'shopping values' in relation to the measurement of the level of newness of physical surroundings. In managerial implications, a matrix of the effect of the level of newness of physical

surroundings on marketing positions was composed based on the research constructs (i.e. newness of physical surroundings, repurchase utilitarian shopping values, repurchase hedonic shopping values and actual repurchase behaviour). There are four marketing positions in this matrix including 'Underdog', 'Rising Sun', 'Day Dream' and 'Benchmark'. Based on the four marketing positions suggested appropriate marketing movements have been developed for improving marketing performance of theme parks.

7.4 Contributions

The rapid globalisation of leisure service industry and its international interactions are prompting increased interest in consumer behaviour research. Building competitive advantages and creating market differentiation from their rivals by offering new services to consumers have become essential. This can be done only if service providers understand how consumers perceive the level of newness of physical surroundings. This study explores the relationship between the level of newness of physical surroundings and visitors' repurchase behaviour in the context of the theme park visitors' experience. It demonstrates the potentially important contribution to the leisure service industry in general and theme park in particular. The present research sets out to contribute to knowledge by providing:

- A definition of newness of physical surroundings that are renewable and visible services and can be clearly perceived by repeat consumers.

- The method developed for measuring the perception of the level of newness of physical surroundings captures consistent response from the same respondent, and hence enables the assessment of the level of newness of physical surroundings and its effect on actual repurchase behaviour.

- Measurement of the perception of the level of newness of physical surroundings by integrating the concept of newness (i.e. newness of physical surroundings as the stimulus) with the S-O-R paradigm. This can provide a better understanding of the level of newness of physical surroundings in relation to the utilitarian and hedonic values and visitors' repurchase of leisure services industry in generally and theme park in particular.

- A better understanding of the concept of shopping values (i.e. utilitarian and hedonic) that can provide insights into the effect of the level of newness of physical surroundings on repurchase shopping values.

- The development of a repurchase behaviour model, to analyse the relationship between the level of newness physical surroundings and visitors' repurchase behaviour. The model will provide a means of measuring the strength and significance of the newness of physical surroundings.

- A quantitative estimate of key constructs (i.e. 'spatial aesthetics', 'placement, décor, and functionality', 'point-of-purchase', 'repurchase utilitarian shopping value', and 'repurchase hedonic shopping value') which influence the consumption behaviour in general and the theme park visitors' repurchase behaviour in particular.

- The theoretical contribution of the study lies in the development of an explicit and comprehensive model for explaining the repurchase behaviour of theme park visitors. The model attempts to capture a broad and holistic view of consumer behaviour that gives proper recognition to the newness of physical surroundings.

7.5 Limitations

Section 1.4 of **Chapter 1** delimited the scope of this study and focused on the effect of the level of newness of physical surroundings on repeat visitors' repurchase shopping values, and actual repurchase behaviour in relation to theme parks. However, there were three limitations that ought to be acknowledged at the conclusion of this study.

(1) Owing to the common limitations of doctoral research: such as the lack of budget and limited time frame, this study is unable to employee random sampling method and collects the data from various 'facility-driven' leisure services. Hence, the results of this study might not be able to be applied beyond the theme park category. This is because the sampling frame was based on theme parks only. Other 'facility-driven' leisure services such as health clubs, golf course resort, resort hotels and sport arenas were not included. Based on this limitation, external validity may not be achieved for application to theme park category. However, the measures (i.e. newness of physical surroundings, repurchase utilitarian shopping value, repurchase hedonic shopping value, and actual repurchase behaviour) developed in this study may be easily modified for other 'facility-driven' leisure services. Future studies may able to increase external validity of the measures of newness of physical surroundings by measuring other 'facility-driven' leisure services.

(2) A further limitation to this study is that there would almost certainly be many other factors (e.g. social factor or intangible service) in addition to the perception of the level of newness of physical surroundings that could affect theme park visitors' repurchase shopping values and actual repurchase behaviour. For example, some repeat theme park visitors may enjoy their visit to a theme park because some intimate friends went together on the visit, but not because they perceived a greater level of newness of physical surroundings. Thus, these repeat theme park visitors' levels of repurchase shopping values (i.e. utilitarian and hedonic values) and their levels of actual

repurchase behaviour (e.g. money spent or time stay) might have been greater than for their last visit if they had been without those friends. However, due to the limitations of time and budget, the other possible factors which could influence theme park visitors' repurchase shopping values and actual repurchase behaviour were excluded from this study.

(3) As there were no government-owned theme parks listed in the Taiwanese government statistics report of visitors to the principal tourist spots in Taiwan in 2003 (Taiwan Tourism Bureau 2004), parks owned by the Taiwanese government were not involved in this study. A possible limitation is that government-owned parks could be intended more for environmental protection purposes whereas privately owned parks could be intended more for profit. Based on these two different purposes, physical surroundings schemes could be different between government-owned parks and privately owned parks.

7.6 Directions for Future Research

Based on the limitations of this study addressed in **Section 7.4** of this chapter, it is suggested that future studies could refer to the concept of the level of newness of physical surroundings to develop future research from two perspectives: longitudinal studies and cross-sectional studies.

For longitudinal studies there are two research directions that can be explored. The first suggestion is that research could be based on the concept of newness of physical surroundings and other concepts (e.g. branding, consumer contact, and consumer innovativeness) that are related to the effect of the level of newness of physical surroundings on consumers. This research direction could lead to enrichment of our understanding of the effect of the level of newness of physical surroundings in conjunction with these related concepts. The second suggestion for longitudinal research is that researchers could focus on the factors influencing the visitors' perception of the level of newness of physical surroundings. This is

because the assessment of the level of newness of physical surroundings is a highly complex concept to measure. This level of newness of physical surroundings could be influenced by factors such as the time gaps between an individual's previous and present experiences, the length of visit, the frequency of visiting and the perceptual ability of visitors. These influential factors could determine the visitors' perceptual system of retrieving their previous experience of the physical surroundings from their memory. A research direction to explore more detail about these influential factors in relation to the perception of the level of newness of physical surroundings should be able to improve understanding of the perception of the level of newness of physical surroundings.

For cross-sectional studies future studies could explore the perception of the level of newness of physical surroundings associated with other 'facility-driven' leisure services such as resort hotels, health clubs, or golf courses, to increase the external validity of the measures of newness of physical surroundings and upgrade understanding of newness of physical surroundings in relation to other 'facility-driven' leisure services. Moreover, comprehensive studies across countries/cultures could enhance understanding of the effect of the level of newness of physical surroundings relating to different geographical and cultural backgrounds. Additionally, as noted in the limitation section (**Section 7.4** of this chapter) government-owned parks were not included in this study. Hence, future studies are encouraged to compare visitors' perceptions of the level of newness of physical surroundings between privately-owned parks and government-owned parks. This research direction could enhance the understanding of the level of physical surroundings in different types of parks.

7.7 Summary

This study has shown that the repurchase behaviour of the theme park visitors is significantly determined by the level of newness of physical surroundings. The data and evidence presented allow that propositions to be made that the relationship between the level of newness of physical surroundings and visitors'

repurchase behaviour is such that the prediction can be made concerning the latter. In the course of establishing such relationship, hypotheses have been proposed, tested and found valid.

This study has proposed an innovative model, a range of theoretical constructs and the creative application of analytical techniques. The study contributes significantly to the knowledge of 'global consumer bahaviour' by developing a model of visitors' consumption behaviour in the context of physical surroundings' newness, which is then tested in an empirical study of the theme parks in Taiwan. The model developed will enable studies of other theme parks and any areas of leisure service industry. .

Importantly, the relationship between the level of newness of physical surroundings and repurchase behaviour is not one of simple cause and effect. The latter is a consequence of the former but is also a contribution to it.

The study also found that there exists a positive relationship between the level of newness of physical surroundings and the utilitarian and hedonic shopping values that can provide suggestions and direction in predicting the repurchase behaviour. The findings have significant contributions to the knowledge with theoretical, methodological, managerial, and marketing implications.

As with all studies of this nature and scopes, many questions have been raised and many areas open up for further research. It is the author's hope that these questions and areas will be explored and that the model developed will contribute to the ongoing advancement and understanding of knowledge in this area.

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APPENDICES

Appendix A. Item generation (main survey)

Aesthetic design

Items	Supporting Literature
Entrance design	Turley & Milliman 2000 (C)
Height of building	Turley & Milliman 2000 (C)
Size of building	Turley & Milliman 2000 (C)
Colour of the building	Johnson et al. 2004 (E) Turley & Milliman 2000 (C)
Lawns and gardens	Turley & Milliman 2000 (C)
Style of architecture	Turley & Milliman 2000 (C) Wakefield & Baker 1998 (E) LeBlanc & Nguyen 1996 (E)
Interior flooring and carpeting	Johnson et al. 2004 (E) Turley & Milliman 2000 (C) Wakefield & Baker 1998 (E) Wakefield & Blodgett 1996 (E)
Colour schemes	Baker et al. 2002 (E) Turley & Milliman 2000 (C) Wakefield & Baker 1998 (E) Crowley 1993 (E) Bellizzi & Hite 1992 (E) Bellizzi et al. 1983 (E)
Lighting	Summers & Hebert 2001 (E) Turley & Milliman 2000 (C) Wakefield & Baker 1998 (E) Yoo et al. 1998 (E) Baker et al. 1994 (E)
Aisle design	Turley & Milliman 2000 (C) Wakefield & Blodgett 1994 (E)
Building composition	Turley & Milliman 2000 (C) Wakefield & Blodgett 1994 (E)
Equipment	Wakefield & Blodgett 1996 (E) Bitner 1992 (C)
Style of decoration	Johnson et al. 2004 (E) Turley & Milliman 2000 (C) Wakefield & Baker 1998 (E) Bitner 1992 (C)

C = Conceptual Study, E = Empirical Study

Source: Literature review

Spatial layout and functionality

Items	Supporting Literature
Space design	Turley & Milliman 2000 (C) Wakefield & Blodgett 1999, 1996 (E), 1994(E)
Placement of equipment	Turley & Milliman 2000 (C)
Placement of facilities	Wakefield & Blodgett 1996 (E)
Furniture	Turley & Milliman 2000 (C) Bitner 1992 (C)
Safety facilities/equipment	Suggested by experts
Content of activities	Suggested by experts
Function of equipment	Bitner 1992 (C)
Logo design	Janiszewski & Meyvis 2001
Style of displays	Fior et al. 2000 (E) Chevalier 1975 (E)

C = Conceptual Study, E = Empirical Study

Source: Literature review

The dimension of point-of-purchase

Items	Supporting Literature
Style of reception area	Wakefield & Blodgett 1994 (E)
Exhibits	Fior et al. 2000 (E)
Price displays	Turley & Milliman 2000 (C)
Opening hours	Parasuraman et al. 1991
Signage design	Turley & Milliman 2000 (C) Turley & Shannon 2000 (E) Bitner 1992 (C) Wilkinson et al. 1982 (E)
Number of service staff	Baker et al. 1994 (C) Baker et al. 1992 (C)
Design of staff uniform	Johnson et al. 2004 (E) Turley & Milliman 2000 (C)

C = Conceptual Study, E = Empirical Study

Source: Literature review

Utilitarian shopping value

Items	Supporting Literature
Practicality	Voss et al. 2003 (E)
Needs match	Babin & Attaway 2000 (E) Mano & Oliver 1993 (E)
Necessary	Voss et al. 2003 (E)
Convenience	Babin & Attaway 2000 (E)
Waiting time for a service	Babin & Attaway 2000 (E)

C = Conceptual Study, E = Empirical Study

Hedonic shopping value

Items	Supporting Literature
Pleasure	Sherman et al. 1997 (E) Mehrabian & Russell 1974 (E)
Attractiveness	Baker et al. 2002 (E) Yoo et al. 1998 (E) Bellizzi et al. 1983 (E) Dickson & Albaum 1977 (E)
Exciting	Voss et al. 2003 (E) Wakefield & Baker 1998 (E) Yoo et al. 1998 (E) Mano & Oliver 1993 (E)
Interest	Mano & Oliver 1993 (E)
Fun	Voss et al. 2003 (E) Hopkinson & Pujari (1999) (E)
Satisfaction	Yoo et al. 1998 (E) Mano & Oliver 1993 (E)

C = Conceptual Study, E = Empirical Study

Repurchase behaviours

Items	Supporting Literature
Money spent	Sherman et al. 1997 (E)
Liking	Sherman et al. 1997 (E)
Number of items purchased	Sherman et al. 1997 (E)
Time spent	Sherman et al. 1997 (E)

C = Conceptual Study, E = Empirical Study

Source: Literature review

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Appendix B. Mean comparison among three last-visit groups

Items	Last visit less than one year ago	Last visit between one and three years ago	Last visit more than three years ago	Total
1. Style of the reception areas	Mean=3.40 N=28 SD=1.03	Mean=3.00 N=39 SD=0.95	Mean=2.38 N=29 SD=0.86	Mean=2.93 N=96 SD=1.02
2. Entrance design	Mean=3.52 N=29 SD=0.95	Mean=3.21 N=39 SD=1.31	Mean=2.90 N=29 SD=0.86	Mean=3.21 N=97 SD=1.11544
3. Height of the building(s)	Mean=3.66 N=29 SD=1.15	Mean=3.36 N=39 SD=1.13	Mean=2.97 N=29 SD=1.15	Mean=3.33 N=97 SD=1.12
4. Size of the building(s)	Mean=3.62 N=29 SD=1.01	Mean=3.10 N=39 SD=1.05	Mean=2.69 N=29 SD=1.04	Mean=3.13 N=97 SD=1.09
5. Colour of the building(s)	Mean=3.36 N=28 SD=0.99	Mean=3.03 N=38 SD=1.05	Mean=2.93 N=29 SD=1.13	Mean=3.09 N=95 SD=1.06
6. Lawns and gardens	Mean=3.38 N=29 SD=1.12	Mean=3.15 N=39 SD=0.99	Mean=2.90 N=29 SD=1.26	Mean=3.14 N=97 SD=1.12
7. Style of architecture	Mean=3.43 N=28 SD=1.03	Mean=3.21 N=39 SD=1.00	Mean=3.07 N=28 SD=1.05	Mean=3.23 N=95 SD=1.03
8. Interior flooring and carpeting	Mean=3.41 N=29 SD=1.05	Mean=3.03 N=39 SD=1.14	Mean=3.00 N=29 SD=1.00	Mean=3.13 N=97 SD=1.08
9. Interior colour schemes	Mean=3.45 N=29 SD=0.91	Mean=3.13 N=39 SD=1.10	Mean=2.86 N=29 SD=0.99	Mean=3.14 N=97 SD=1.03
10. Lighting	Mean=3.04 N=28 SD=1.29	Mean=3.10 N=39 SD=1.00	Mean=2.79 N=29 SD=1.08	Mean=2.99 N=96 SD=1.11
11. Design of the aisles	Mean=3.21 N=29 SD=1.11	Mean=2.95 N=39 SD=1.07	Mean=2.97 N=29 SD=1.09	Mean=3.03 N=97 SD=1.08
12. Building composition (e.g. steel)	Mean=3.41 N=29 SD=1.08619	Mean=3.08 N=39 SD=1.22	Mean=2.86 N=29 SD=0.95	Mean=3.11 N=97 SD=1.12
13. Space design	Mean=3.41 N=29 SD=1.12	Mean=2.97 N=38 SD=1.23	Mean=2.79 N=29 SD=0.94	Mean=3.05 N=96 SD=1.13
14. Equipment	Mean=3.21 N=29 SD=1.146	Mean=3.31 N=39 SD=0.95	Mean=2.55 N=29 SD=0.99	Mean=3.05 N=97 SD=1.06

Appendix B. Mean comparison among three last-visit groups ***(Cont.)***

Items	Last visit less than one year ago	Last visit between one and three years ago	Last visit more than three years ago	Total
15. Furniture	Mean=3.59 N=29 SD=1.02	Mean=3.28 N=39 SD=1.00	Mean=3.00 N=29 SD=0.89	Mean=3.29 N=97 SD=0.99
16. Style of decoration	Mean=3.55 N=29 SD=0.99	Mean=3.13 N=39 SD=1.06	Mean=2.76 N=29 SD=0.91	Mean=3.14 N=97 SD=1.03
17. Placement of facilities (e.g. toilets)	Mean=3.69 N=29 SD=1.00	Mean=3.26 N=38 SD=1.06	Mean=2.83 N=29 SD=0.89	Mean=3.26 N=96 SD=1.04
19. Exhibits	Mean=3.17 N=29 SD=0.97	Mean=3.03 N=37 SD=1.12	Mean=2.66 N=29 SD=1.01	Mean=2.96 N=95 SD=1.05
20. Display style	Mean=3.38 N=29 SD=0.94	Mean=3.03 N=39 SD=1.04	Mean=2.86 N=29 SD=0.99	Mean=3.08 N=97 SD=1.01
21. Signage design	Mean=3.41 N=29 SD=1.02	Mean=2.92 N=39 SD=1.20	Mean=2.71 N=28 SD=1.01	Mean=3.01 N=96 SD=1.12
22. Safety facilities/equip-ment	Mean=3.36 N=28 SD=0.83	Mean=3.11 N=37 SD=1.02	Mean=2.55 N=29 SD=0.83	Mean=3.01 N=94 SD=0.96
23. Logo/brand design	Mean=3.52 N=29 SD=0.99	Mean=3.36 N=39 SD=0.96	Mean=2.83 N=29 SD=1.07	Mean=3.25 N=97 SD=1.03
24. Price display	Mean=3.31 N=29 SD=1.11	Mean=3.26 N=38 SD=1.18	Mean=3.10 N=29 SD=1.08	Mean=3.23 N=96 SD=1.12
25. Opening hours	Mean=3.03 N=29 SD=1.30	Mean=2.85 N=39 SD=0.96	Mean=2.86 N=29 SD=1.16	Mean=2.91 N=97 SD=1.12
26. Content of activities	Mean=3.32 N=28 SD=1.06	Mean=3.05 N=39 SD=1.05	Mean=2.62 N=29 SD=1.08	Mean=3.00 N=96 SD=1.09
27. Functioning of equipment	Mean=3.24 N=29 SD=0.95	Mean=3.18 N=39 SD=1.10	Mean=2.69 N=29 SD=1.07	Mean=3.05 N=97 SD=1.06

Appendix B. Mean comparison among three last-visit groups ***(Cont.)***

Items	Last visit less than one year ago	Last visit between one and three years ago	Last visit more than three years ago	Total
28. Service staff uniform design	Mean=3.59 N=29 SD=1.02	Mean=2.95 N=39 SD=1.17	Mean=2.73 N=29 SD=0.96	Mean=3.07 N=97 SD=1.11
29. Number of service staff	Mean=3.41 N=29 SD=0.95	Mean=2.87 N=39 SD=1.15	Mean=2.72 N=29 SD=1.03	Mean=2.99 N=97 SD=1.08

Source: Data analysis (2004)

Item-Total Statistics

Items	Item-to-Total Correlation	Cronbach's Alpha if Item Deleted
1. Style of the reception areas	.64	.97
2. Entrance design	.70	.97
3. Height of the building(s)	.76	.97
4. Size of the building(s)	.77	.97
5. Colour of the building(s)	.73	.97
6. Lawns and gardens	.65	.97
7. Style of architecture	.64	.97
8. Interior flooring and carpeting	.80	.97
9. Interior colour schemes	.78	.97
10. Lighting	.72	.97
11. Design of the aisles	.74	.97
12. Building composition	.76	.97
13. Space design	.76	.97
14. Equipment	.73	.97
15. Furniture	.80	.97
16. Style of decoration	.74	.97
17. Placement of facilities	.76	.97
18. Placement of equipment	.82	.97
19. Exhibits	.74	.97
20. Display style	.71	.97
21. Signage design	.79	.97
22. Safety facilities/equipment	.77	.97
23. Logo/brand design	.72	.97
24. Price display	.57	.97
25. Opening hours	.53	.97
26. Content of activities	.61	.97
27. Functioning of equipment	.67	.97
28. Service staff uniform design	.68	.97
29. Number of service staff	.73	.97

N = 97

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Appendix C. Item generation (pilot study)

Aesthetic design

Items	Supporting Literature
Style of entrance design	**Combined items**
Height of building	Turley & Milliman 2000 (C)
Size of building	Turley & Milliman 2000 (C)
Colour of building	Johnson et al. 2004 (E) Turley & Milliman 2000 (C)
Lawns and gardens	Turley & Milliman 2000 (C)
Style of architecture	Turley & Milliman 2000 (C) Wakefield & Baker 1998 (E) LeBlanc & Nguyen 1996 (E)
Interior flooring and carpeting	Johnson et al. 2004 (E) Turley & Milliman 2000 (C) Wakefield & Blodgett 1996 (E)
Colour schemes	Baker et al. 2002 (E) Turley & Milliman 2000 (C) Wakefield & Baker 1998 (E) Crowley 1993 (E) Bellizzi & Hite 1992 (E) Bellizzi et al. 1983 (E)
Lighting	Summers & Hebert 2001 Turley & Milliman 2000 (C) Wakefield & Baker 1998 (E) Yoo et al. 1998 (E) Baker et al. 1994 (E)
Building composition	Turley & Milliman 2000 (C) Wakefield & Blodgett 1994 (E)
Style of decoration	Johnson et al. 2003 (E) Turley & Milliman 2000 (C) Wakefield & Baker 1998 (E) Bitner 1992 (C)

C = Conceptual Study, E = Empirical Study

Source: Literature review

Spatial layout and functionality

Items	Supporting Literature
Layout design	**Combined item**
Placement of equipment	Turley & Milliman 2000 (C)
Placement of facilities	Wakefield & Blodgett 1996 (E)
Furniture	Turley & Milliman 2000 (C) Bitner 1992 (C)
Safety facilities/equipment	Suggested by experts
The play equipment (e.g. roller coaster's design & function)	Combined items
Logo design	Janiszewski & Meyvis 2001
Displays	Combined item

C = Conceptual Study, E = Empirical Study

Source: Literature review

Point-of-purchase

Items	Supporting Literature
Opening hours	Parasuraman et al. 1991
Price displays	Turley & Milliman 2000 (C)
Signage design	Turley & Milliman 2000 (C) Turley & Shannon 2000 Bitner 1992 (C) Wilkinson et al. 1982
Number of service staff	Baker et al. 1994 (C) Baker et al. 1992 (C)
Design of staff uniform	Johnson et al. 2004 (E) Turley & Milliman 2000 (C)

C = Conceptual Study, E = Empirical Study

Source: Literature review

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VICTORIA UNIVERSITY

Perceptions of Theme Park Survey

The objective of this study is to establish an understanding of consumer perceptions on a theme park's new physical surroundings. This questionnaire is about your perceptions of this theme park's new physical surrounding in relation to what you feel about the new physical surroundings and how you purchase in this theme park. This study is part of a Doctor of Philosophy degree. Your participation is completely voluntary and all information obtained will be completely anonymous and confidential. We will establish only an anonymous data file, so no individual's opinions will be identified. Please answer each question as reliably as you can. There are no right or wrong answers. It should take you around 10 to 15 minutes to complete the entire questionnaire.

If you have any questions, concerns or suggestions regarding this study or if you would like a summary of the general results when this study is completed, please contact Mr. Ching-Hung CHANG at Ching-hung.Chang@research.vu.edu.au. Tel.: (03) 99191170, Associate Professor Linda ROBERTS at Linda.Roberts@vu.edu.au. Tel.: (03) 99191320, Dr. Robert WARYSZAK at Robert.Waryszak@vu.edu.au. Tel.: (03) 99191268, School of Hospitality, Tourism, and Marketing, Victoria University, Melbourne, Australia

Office use only:

Name of Theme Park: _____

Date: _____

Time: _____

Interviewer's Name: _____

1. Are you over 18 years old?

☐ Yes ☐ No

2. Is this your first visit to this theme park?

☐ Yes ☐ No

3. How long ago was your last visit to this theme park?

☐ Yesterday to one week ago
☐ More than one week to one month ago
☐ More than one month to 3 months ago
☐ More than 3 months to half a year ago
☐ More than half year to one year ago
☐ More than 1 year to 1.5 years ago
☐ More than 1.5 years to 2 years ago
☐ More than 2 years to 2.5 years ago
☐ More than 2.5 years to 3 years ago
☐ More than 3 years ago

4. How often do you normally visit this theme park?

☐ Once a day
☐ Once every 2 or 3 days
☐ Once a week
☐ Once a fortnight
☐ Once a month
☐ Once every 2 months
☐ Once every 3 months
☐ Once every 6 months
☐ Once every year
☐ Once every one and half years
☐ Once every 2 years
☐ Once every 2.5 years
☐ Once every 3 years
☐ Less than once every 3 years

Please continue on the next pages

Please read the meaning of new physical surroundings before you start to answer the questions.

Physical Surrounding is any service item you can see in a theme park. **New Physical Surrounding** is any physical surrounding you have not seen before or is fresh for the theme park you are visiting.

Part 1: Please tick a level in the right side column for each item listed

(1) = Completely New (2) = Mostly Renewed (3) = Partly Renewed
(4) = Mostly Not Renewed (5) = Not Renewed at All

Items	In comparison to my previous visits to this theme park, my perception of the levels of renewal of each item is.				
	(1)	(2)	(3)	(4)	(5)
1. The style of entrance design.	☐	☐	☐	☐	☐
2. The height of the building(s).	☐	☐	☐	☐	☐
3. The size of the building(s).	☐	☐	☐	☐	☐
4. The colour of the building(s).	☐	☐	☐	☐	☐
5. The lawns and gardens.	☐	☐	☐	☐	☐

	(1)	(2)	(3)	(4)	(5)
6. The style of architecture.	☐	☐	☐	☐	☐
7. The flooring and carpeting.	☐	☐	☐	☐	☐
8. The colour schemes.	☐	☐	☐	☐	☐
9. The lighting (e.g. the style, design).	☐	☐	☐	☐	☐
10. The layout design.	☐	☐	☐	☐	☐

	(1)	(2)	(3)	(4)	(5)
11. The building composition (e.g. steel).	☐	☐	☐	☐	☐
12. The play equipment (e.g. roller coaster design and function).	☐	☐	☐	☐	☐
13. The furniture (e.g. style, quality).	☐	☐	☐	☐	☐
14. The style of decoration.	☐	☐	☐	☐	☐
15. The placement of facilities (e.g. toilets).	☐	☐	☐	☐	☐

	(1)	(2)	(3)	(4)	(5)
16. The placement of play equipment.	☐	☐	☐	☐	☐
17. The displays (e.g. shows, films).	☐	☐	☐	☐	☐
18. The signage design.	☐	☐	☐	☐	☐
19. The safety facilities/equipment (e.g. emergency doors).	☐	☐	☐	☐	☐
20. The logo design.	☐	☐	☐	☐	☐

	(1)	(2)	(3)	(4)	(5)
21. The price displays.	☐	☐	☐	☐	☐
22. The opening hours.	☐	☐	☐	☐	☐
23. The design of staff uniform.	☐	☐	☐	☐	☐
24. The number of service staff.	☐	☐	☐	☐	☐

Please continue on the next pages

Part 2: Please tick a level in the right column for each item listed

(1) = Very much higher than before (2) = Higher than before (3) = Same as before
(4) = Lower than before (5) = Very much lower than before

Items	Based on this visit, this theme park made me feel that				
1. The practicality level is	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐
2. The level of matching my needs is	☐	☐	☐	☐	☐
3. The level of convenience is	☐	☐	☐	☐	☐
4. The level of waiting for service is	☐	☐	☐	☐	☐

Part 3: Please tick a level in the right column for each item listed

(1) = Very much higher than before (2) = Higher than before (3) = Same as before
(4) = Lower than before (5) = Very much lower than before

Items	Based on this visit, this theme park made me feel that				
1. The pleasure level is	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐
2. The attractiveness level is	☐	☐	☐	☐	☐
3. The level of excitement is	☐	☐	☐	☐	☐
4. The level of interest is	☐	☐	☐	☐	☐
5. The level of fun is	☐	☐	☐	☐	☐
6. The satisfaction level is	☐	☐	☐	☐	☐

Part 4: Please tick a level in the questions listed below

1. Will you visit this theme park again?

☐ Yes ☐ No

2. How frequently will you visit this theme park in the future?

☐ Very much more frequently than before ☐ More frequently than before

☐ Same as before ☐ Less frequently than before ☐ Very much less frequently than before

Part 5: Personal Background (For each question please tick one box only)

1. **Gender:**

   ☐ Female ☐ Male

2. **Age:**

   ☐ 18-24 Years Old ☐ 25-34 Years Old ☐ 35-44 Years Old

   ☐ 45-54 Years Old ☐ 55-64 Years Old ☐ 65 or Above

3. **Marital status:**

   ☐ Single ☐ Married ☐ Married but Single

Please continue on the next page

4. **Occupation:**

☐ Home duties ☐ Business & Industry ☐ Government Agency

☐ Faculty/Teacher ☐ Retired ☐ Self-Employed

☐ Student ☐ Other_____

5. **Education level:**

☐ Secondary School or Below ☐ Senior High School ☐ College or Bachelor

☐ Postgraduate or Above

6. **How many people were in your party this time (including yourself)?**

☐ 1 Person ☐ 2 person ☐ 3-4 Persons ☐ 5-6 Persons

☐ 7-8 Persons ☐ 9-10 Persons ☐ Above 10 Persons

7. **Who made the decision to visit this theme park this time? (Please tick one box only)**

☐ Myself ☐ My Parents ☐ My Children ☐ My Husband/Wife

☐ My Brother/s or Sister/s ☐ Other Relatives ☐ My Friends

☐ My Classmate/Colleague ☐ My Teacher

☐ My Class/School/College/University ☐ Others _____

8. **How long have you spent in this theme park today?**

☐ Less than 1 Hour ☐ 1-3 Hours ☐ Between 3-5 Hours

☐ Between 5-7 Hours ☐ 7 Hours or More

9. **I think it is important that a theme park's physical surroundings need to be renewed.**

☐ Strongly Agree ☐ Agree ☐No Opinion ☐ Disagree ☐ Strongly Disagree

10. **On the table below, please tick only one level for each of 10.1, 10.2, 10.3 and 10.4**

(1) = Very much higher than before (2) = Higher than before (3) = Same as before
(4) = Lower than before (5) = Very much lower than before

Items	In this visit, compared to my previous visit to this theme park				
10.1. The money I spent in this theme park is	(1) ☐	(2) ☐	(3) ☐	(4) ☐	(5) ☐
10.2. My preference for this theme park is	☐	☐	☐	☐	☐
10.3. The number of services I use in this theme park is	☐	☐	☐	☐	☐
10.4. The time I spent in this theme park is	☐	☐	☐	☐	☐

Thank you very much for your participation

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顧客認知調查

本研究之目標爲建立一顧客對主題遊樂園新實體性環境之認知的了解。本問卷是以您對所參訪的主題遊樂園之實體環境的感知，進行有關於您對此主題遊樂園之新實體環境的感覺以及您如何消費的調查。本研究是博士學位研究的一部份。您的參與是完全自願性的以及所有取得訊息將是完全不具名且不公開的。本研究將只建立統整性且不具名資料，所以沒有任何個人觀點將會被呈現出來。本問卷並沒有正確的答案，請儘可能以您實際的感知回答本問卷。本問卷大概將花您十至十五分鐘來填寫。

如對本研究有任何問題或建議，或者您想要知道本研究之結果，請聯絡： Mr Ching-Hung CHANG (張景弘) 電子信箱：Ching-hung.Chang@research.vu.edu.au 電話： +61-3-9199-1070, Associate Professor Linda ROBERTS 電子信箱：Linda.Roberts@vu.edu.au 電話：+61-3-9199-1320, Dr Robert WARYSZAK 電子信箱： Robert.Waryszak@vu.edu.au 電話：+61-3-9199-1268, School of Hospitality, Tourism & Marketing, Victoria University, Melbourne, Australia.

Office use only
(訪員專用):

Name of Theme Park: _____.

Date: _____.

Time: _____.

Interviewer's Name: _____.

一、 您的年齡超過 18 歲了嗎？（含 18 歲）

☐ 是， ☐ 否。

二、 此次參訪是否爲您第一次參訪此主題遊樂園？

☐ 是， ☐ 否。

三、 您上一次參訪此主題遊樂園是多久以前？

☐ 昨天至一星期前，
☐ 超過一個星期至一個月以前，
☐ 超過一個月至三個月以前，
☐ 超過三個月至半年以前，
☐ 超過半年至一年以前，
☐ 超過一年至一年半以前，
☐ 超過一年半至二年以前，
☐ 超過兩年至二年半以前，
☐ 超過二年半至三年以前，
☐ 超過三年以前。

四、 您通常大約多久會來參訪此主題遊樂園一次?

☐ 每天，
☐ 每二至三天，
☐ 每週，
☐ 每半個月，
☐ 每月，
☐ 每兩個月，
☐ 每三個月，
☐ 每半年，
☐ 每一年，
☐ 每一年半，
☐ 每二年，
☐ 每二年半，
☐ 每三年，
☐ 每三年以上。

請翻至下一頁繼續填寫

填選以下問卷調查之前，請先參考以下**實體環境之定義**。

實體環境是指一主題遊樂園中任何您可用視覺看到的服務項目。
新實體環境則是指您在此主題遊樂園所沒有看過或覺得具新鮮感的實體環境。

第一部份：請在右欄針對每一問項勾選一個適切水準。

新實體環境問項 (以整體服務觀的實體環境)	根據此次對此遊樂園的體驗，我覺得此遊樂園之**更新**的程度爲				
	全新的 (1)	**大部份更新 (2)**	**部份更新 (3)**	**少部份更新 (4)**	**沒有更新 (5)**
1. 入口處的設計風格。	□	□	□	□	□
2. 建築物的高度。	□	□	□	□	□
3. 建築物的大小。	□	□	□	□	□
4. 建築物的顏色。	□	□	□	□	□
5. 植栽景觀。	□	□	□	□	□

	全新的 (1)	**大部份更新 (2)**	**部份更新 (3)**	**少部份更新 (4)**	**沒有更新 (5)**
6. 建築的風格。	□	□	□	□	□
7. 地板或地毯。	□	□	□	□	□
8. 色彩搭配。	□	□	□	□	□
9. 採光照明(如燈光設計或風格)。	□	□	□	□	□
10. 空間格局設計。	□	□	□	□	□

	全新的 (1)	**大部份更新 (2)**	**部份更新 (3)**	**少部份更新 (4)**	**沒有更新 (5)**
11. 建築物的結構 (如木或鐵造等)。	□	□	□	□	□
12. 設備 (如雲霄飛車等遊具/器)。	□	□	□	□	□
13. 桌椅等傢俱。	□	□	□	□	□
14. 裝飾擺設的風格。	□	□	□	□	□
15. 設施 (如化妝室等)的設置位置。	□	□	□	□	□

	全新的 (1)	**大部份更新 (2)**	**部份更新 (3)**	**少部份更新 (4)**	**沒有更新 (5)**
16. 設備的擺設位置。	□	□	□	□	□
17. 展示 (如秀場、影片等)。	□	□	□	□	□
18. 導引標示的設計。	□	□	□	□	□
19. 安全設施設備(如逃生門設計)。	□	□	□	□	□
20. 商標的設計。	□	□	□	□	□

	全新的 (1)	**大部份更新 (2)**	**部份更新 (3)**	**少部份更新 (4)**	**沒有更新 (5)**
21. 價格標示。	□	□	□	□	□
22. 營業時間。	□	□	□	□	□
23. 服務人員的制服設計。	□	□	□	□	□
24. 服務人員的配置。	□	□	□	□	□

請翻至下一頁繼續填寫

第二部份：請在右欄中針對每一問項勾選一個適切的水準。

問項	依我此次參訪的感覺，此主題遊樂園讓我覺得在				
	比以前高很多 (1)	比以前高 (2)	與以前一樣 (3)	比以前低 (4)	比以前低很多 (5)
1.實用程度上。	☐	☐	☐	☐	☐
2.符合我的需求程度上。	☐	☐	☐	☐	☐
3.使用便利性程度上。	☐	☐	☐	☐	☐
4. 服務等待時間的程度上。	☐	☐	☐	☐	☐
	☐	☐	☐	☐	☐

第三部份：請在右欄中針對每一問項勾選一個適切的水準。

問項	依我此次參訪的感覺，此主題遊樂園讓我覺得在				
	比以前高很多 (1)	比以前高 (2)	與以前一樣 (3)	比以前低 (4)	比以前低很多 (5)
1. 愉快程度上。	☐	☐	☐	☐	☐
2. 吸引程度上。	☐	☐	☐	☐	☐
3. 刺激程度上。	☐	☐	☐	☐	☐
4. 有趣程度上。	☐	☐	☐	☐	☐
5. 好玩程度上。	☐	☐	☐	☐	☐
6. 滿意程度上。	☐	☐	☐	☐	☐

第四部份 ：請在右欄中針對每一問項勾選一個適切的水準。

1. 我下次將會再參訪此遊樂園。

☐ 會, ☐ 不會。

2. 我以後參訪此遊樂園的次數將會：

☐ 比以前更多, ☐ 比以前多, ☐ 與以前一樣, ☐ 比以前少, ☐ 比以前更少。

第五部份：個人資料 (每一問題請單選)。

1. **性別：**

☐ 女, ☐男。

2. **年齡：**

☐ 18-24 歲, ☐ 25-34 歲, ☐ 35-44 歲, ☐45-54 歲,

☐55-64 歲, ☐ 65 歲以上。

3. **婚姻狀況：**

☐ 未婚, ☐ 已婚, ☐ 已婚但單身。

請翻至下一頁繼續填寫

4.**職業：**

☐ 家庭主婦/夫, ☐ 工商業, ☐ 公務人員 (軍公警), ☐ 教師,

☐ 已退休, ☐ 自由業, ☐ 學生, ☐ 其他 _____ 。

5. **教育水準：**

☐ 國民中學或以下, ☐ 高中, ☐ 專科或大學, ☐ 研究所以上。

6. **每月收入：**

☐ 新台幣 30,000 元或以下, ☐ 新台幣 30,001-50,000 元, ☐ 新台幣 50,001-70,000 元,

☐ 新台幣 70,001-900,000 元, ☐ 新台幣 90,001-120,000 元, ☐ 新台幣 120,001 元或以上。

7. **家住在？**(請單選)

☐ 台灣北部, ☐ 台灣中部, ☐ 台灣南部, ☐ 台灣東部,

☐ 台灣外島區域 ☐ 海外區域。

8. **多少人此次與我同遊(包括我自己)?** (請單選)

☐ 1 人, ☐ 2 人, ☐ 3-4 人, ☐ 5-6 人,

☐ 7-8 人, ☐ 9-10 人, ☐ 10 人以上。

9. **此次由誰決定參訪此遊樂園?** (請單選)

☐ 自己, ☐ 父母親, ☐ 孩子, ☐ 我先生/太太,

☐ 我兄弟姊妹, ☐ 親戚, ☐ 朋友, ☐ 同學/同事,

☐ 老師, ☐ 學校行政單位, ☐ 其他_____ 。

10. 我這次花多久的時間在此主題遊樂園? (請單選)

☐ 一個小時之內, ☐ 1 小時以上至 3 小時, ☐ 3 小時以上至 5 小時,

☐ 5 小時以上至 7 小時, ☐ 7 小時以上含過夜。

11. **我覺得一個主題遊樂園之實體環境的更新很重要。**

☐ 非常同意, ☐ 同意, ☐普通, ☐ 不同意, ☐ 極爲不同意。

12. **請在下表之問項中依題勾選一個適切水準。**

問項	依我此次參訪的感覺，此主題遊樂園讓我覺得在				
	比以前高很多 (1)	比以前高 (2)	與以前一樣 (3)	比以前低 (4)	比以前低很多 (5)
12.1.金錢消費程度上。	☐	☐	☐	☐	☐
12.2.此主題遊樂園的喜歡程度上。	☐	☐	☐	☐	☐
12.3.服務項目的參與/使用程度上。	☐	☐	☐	☐	☐
12.4.時間停留程度上。	☐	☐	☐	☐	☐

謝謝您的參與

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Appendix F. Investigation of the level of newness of physical surroundings[†]

ITEMS	WOC	YAMAY	JANFUSUN
New 1 Style of entrance design.	August 2004	None	October 2004
New 2 Height of the building(s).	None	None	January 2002
New 3 Size of the building(s).	None	None	January 2002
New 4 Colour of the building(s).	March 2004	None	January 2002
New 5 Lawns and gardens.	March 2004	None	None
New 6 Style of architecture.	None	None	January 2002
New 7 Flooring and carpeting.	None	None	January 2002
New 8 Colour schemes.	June 2004	None	October 2004
New 9 Lighting.	June 2004	None	July 2004
New 10 Layout design.	None	None	January 2002
New 11 Building composition.	None	None	None
New 12 Play equipment.	None	One ride renewed at the end of 2003	October 2002 April 2003
New 13 Furniture.	June 2004	None	October 2004
New 14 Style of decoration.	April 2004	None	October 2004
New 15 Placement of facilities.	None	None	October 2004
New 16 Placement of play equipment.	October 2004	None	None
New 17 Displays.	Every October	None	2002 (once or twice a year)
New 18 Signage design.	April 2004	None	July 2004
New 19 Safety facilities/equipment (e.g. emergency doors).	None	None	None
New 20 Logo design.	May 2004	None	October 2004
New 21 Price displays.	None	None	None
New 22 Opening hours.	None	None	July 2004
New 23 Design of staff.	None	None	April 2003
New 24 Number of service staff.	None	None	July 2004

[†] Information provided by the three selected theme parks. The result was based on a three-year time period from the end of December 2001 to the end of December 2004.

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Appendix G. Item correlations

	New 1	New 2	New 3	New 4	New 5	New 6	New 7	New 8	New 9	New 10	New 11	New 12
New 1	1.00											
New 2	.66	1.00										
New 3	.63	.79	1.00									
New 4	.59	.65	.73	1.00								
New 5	.53	.50	.55	.64	1.00							
New 6	.60	.59	.65	.64	.56	1.00						
New 7	.56	.56	.58	.63	.58	.74	1.00					
New 8	.58	.56	.61	.64	.59	.66	.74	1.00				
New 9	.53	.51	.57	.60	.59	.63	.63	.73	1.00			
New 10	.53	.52	.59	.60	.57	.65	.62	.67	.74	1.00		
New 11	.54	.55	.56	.56	.54	.64	.58	.56	.57	.62	1.00	
New 12	.45	.48	.49	.49	.50	.55	.50	.48	.48	.51	.69	1.00
New 13	.50	.47	.51	.55	.58	.58	.57	.53	.56	.55	.64	.66
New 14	.47	.43	.47	.51	.57	.59	.57	.57	.62	.58	.60	.61
New 15	.45	.46	.50	.50	.50	.52	.51	.52	.52	.55	.56	.55
New 16	.49	.50	.50	.54	.49	.57	.56	.53	.52	.54	.63	.56
New 17	.39	.38	.40	.44	.44	.44	.46	.48	.47	.49	.46	.50
New 18	.48	.47	.50	.49	.49	.50	.49	.52	.51	.53	.53	.50
New 19	.48	.51	.52	.51	.46	.52	.51	.53	.55	.54	.51	.48
New 20	.48	.46	.47	.50	.46	.50	.48	.51	.54	.50	.51	.49
New 21	.38	.35	.37	.35	.32	.40	.43	.41	.38	.38	.41	.42
New 22	.38	.41	.38	.41	.35	.42	.47	.45	.40	.40	.44	.42
New 23	.30	.32	.36	.37	.35	.35	.40	.39	.40	.41	.35	.36
New 24	.32	.34	.40	.38	.37	.38	.39	.39	.41	.42	.38	.39

Source: Data analysis (2006)

N = 732, Correlation coefficient of all items is significant at the 0.01 level (2-tailed).

	New 13	New 14	New 15	New 16	New 17	New 18	New 19	New 20	New 21	New 22	New 23	New 24
New 13	1.00											
New 14	.73	1.00										
New 15	.63	.67	1.00									
New 16	.58	.61	.58	1.00								
New 17	.52	.52	.49	.64	1.00							
New 18	.57	.58	.60	.64	.67	1.00						
New 19	.56	.56	.61	.64	.57	.70	1.00					
New 20	.57	.55	.60	.59	.54	.67	.74	1.00				
New 21	.44	.43	.39	.50	.43	.45	.47	.51	1.00			
New 22	.45	.44	.40	.49	.47	.49	.48	.50	.62	1.00		
New 23	.43	.40	.43	.42	.46	.47	.47	.47	.41	.49	1.00	
New 24	.46	.46	.45	.48	.49	.51	.53	.51	.49	.53	.74	1.00

N = 732, Correlation coefficient of all items is significant at the 0.01 level (2-tailed).

Source: Data analysis (2006)

Correlations

	U1	U2	U3	U4
U1	1.00			
U2	.70	1.00		
U3	.61	.69	1.00	
U4	.49	.52	.61	1.00

N = 732, Correlation coefficient of all items is significant at the 0.01 level (2-tailed).

Source: Data analysis (2006)

Correlations

	H1	H2	H3	H4	H5	H6
H1	1.00					
H2	.74	1.00				
H3	.61	.67	1.00			
H4	.66	.68	.74	1.00		
H5	.67	.67	.68	**.80**	1.00	
H6	.71	.68	.63	.71	.73	1.00

N = 732, Correlation coefficient of all items is significant at the 0.01 level (2-tailed).

Source: Data analysis (2006)

Correlations

	RB1	RB2	RB3	RB4
1. RB1	1.00			
2. RB2	.33	1.00		
3. RB3	.28	.67	1.00	
4. RB4	.30	.54	.62	1.00

N = 732, Correlation coefficient of all items is significant at the 0.01 level (2-tailed).

Source: Data analysis (2006)

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Appendix H. Item-to-total-correlation and reliability check

Spatial aesthetic

	Mean	SD	Item to total correlation	Alpha if item deleted
Renew 1	3.08	.94	.70	.93
Renew 2+3	3.43	.94	.76	.93
Renew 4	3.34	.96	.77	.93
Renew 5	3.05	.98	.69	.93
Renew 6	3.22	.92	.79	.93
Renew 7	3.26	.96	.77	.93
Renew 8	3.21	.95	.80	.93
Renew 9	3.23	.97	.76	.93
Renew 10	3.24	.96	.75	.93

Reliability coefficients / 9 items
Alpha = .93 Standardized item alpha = .94

Placement, décor and functionality

	Mean	SD	Item to total correlation	Alpha if item deleted
Renew 11	3.20	.93	.70	.92
Renew 12	3.13	1.02	.69	.93
Renew 13	3.21	.93	.76	.92
Renew 14	3.20	.95	.75	.92
Renew 15	3.26	1.04	.73	.92
Renew 16	3.13	.88	.75	.92
Renew 17	2.97	.98	.67	.92
Renew 18	3.14	.99	.76	.92
Renew 19	3.25	1.04	.75	.92
Renew 20	3.25	1.04	72	.92

Reliability coefficients / 10 items
Alpha = .93 Standardized item alpha = .93

Point-of-purchase

	Mean	SD	Item to total correlation	Alpha if item deleted
Renew 21	3.04	.92	.58	.81
Renew 22	3.18	.94	.64	.78
Renew 23	3.90	1.09	.66	.77
24	3.08	1.03	.73	.74

Reliability coefficients / 4 items
Alpha = .83 Standardized item alpha = .83

Source: Data analysis (2006)

Repurchase utilitarian shopping value

	Mean	SD	Item to total correlation	Alpha if item deleted
U1	2.57	.66	.69	.82
U2	2.70	.70	.75	.80
U3	2.71	.69	.76	.79
U4	2.73	.75	.61	.86

Reliability coefficients / 4 items
Alpha = .86 Standardized item alpha = .86

Repurchase hedonic shopping value

	Mean	SD	Item to total correlation	Alpha if item deleted
H1	2.55	.77	.78	.90
H2	2.64	.80	.80	.90
H3	2.61	.82	.75	.91
H4+5	2.64	.77	.84	.89
H6	2.59	.84	.78	.90

Reliability coefficients / 5 items
Alpha = .92 Standardized item alpha = .92

Source: Data analysis (2006)

Actual repurchase behaviour

	Mean	SD	Item to total correlation	Alpha if item deleted
RB1	2.44	.70	.35	.82
RB2	2.65	.73	.66	.67
RB3	2.67	.74	.69	.66
RB4	2.67	.83	.62	.69

Reliability coefficients / 4 items
Alpha = .77 Standardized item alpha = .77

Source: Data analysis (2006)