

## THE INFLUENCE OF INTERIOR DESIGN ON THE VALUE AND BEHAVIOR OF FEMALE SHOPPERS IN SHOPPING MALLS

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Thesis

THE INFLUENCE OF INTERIOR DESIGN ON THE VALUE AND BEHAVIOR OF FEMALE SHOPPERS IN

SHOPPING MALLS

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#### **ABSTRACT**

The process of marketing managers trying to change the physical environment of their stores to develop special habits. According to the psychological theory, the environment of the shopping center will affect the behavior/purpose of customers. More precisely, the environment can be an important basis for investigating customers. This study explores the influence of shopping mall interior design on the value and behavior of female shoppers through quantitative experiments. A questionnaire was distributed to 430 female consumers in Taikoo Li Shopping Center in Chengdu City, Sichuan Province to collect feedback data. The results show that the interior design of shopping centers has a significant impact on the hedonic value, product quality, and utilitarian value of female shoppers, which confirms the previous research that product quality has a significant impact on the hedonic value and utilitarian value.

Keywords: elderly care institutions, plant landscape, psychology, ageability.

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#### **CHAPTER 1**

#### **INTRODUCTION**

#### 1.1 Overview

Mall and concession stand workers are now increasingly aware of the positive impact of the environment on shopping behavior. Shopping centers are often an effective factor in town development. They have encountered small batches, but today they are mature and compete with each other to attract customers. Developers have invented new strategies to implement a new style within existing shopping centers (Hami et al., 2018a). At the same time, many enterprises pay attention to the mining of the characteristics of self-management in the market, and sharp businesses begin to look for the characteristics of self-management, maximize the advantages of self-management (Dijksterhuis et al., 2005).



Figure 1.1 Chengdu Taikoo Li Shopping Plaza (by author)

They began to pay attention to shaping their business philosophy, establishing their own corporate culture, and pass on to consumers through a carefully designed business environment. Because of this, the theme shopping center with its distinctive theme characteristics and rich cultural connotation has gradually become one of the mainstream commercial development modes in this century. The establishment of restaurants and cinemas, attractive environments, fountains, and seats that encourage customers to visit and shop are examples of these strategies. Even unnoticed or unconsciously perceived changes in environmental cues have the potential to cause customers to alter their behavior while in the store (Turley & Chebat, 2002). The process by which marketing managers try to change the physical environment of their stores to create particular habits/reactions in their customers is called atmospheric biology (Michon & Smith, 2007).



Figure 1.2 Female shopper in the mall (by author)

Shopping center operators and shopkeepers must have a deeper understanding of customers to provide them with an ideal shopping environment. Location, which is connected to accessibility, as well as the distance and travel time to the shopping center, are all aspects of transportation. The availability and variety of retail items, promotion and discount, environment, and comprehensive facilities such as cafes, food stores, entertainment facilities, and food stores are all aspects of retail(Sari et al., 2015). The study examined how female buyers deal with retail climate cues and how they react to shopping malls. Therefore, it provides suggestions for mall operators, small sellers, and marketing researchers. Rich individual character distinctive diversified thematic shopping space is gradually taking the place of the only meet the needs in a shopping environment, but shopping mall space environment requirement of the market have a certain time limit (Erkip, 2005). So operators and designers need

constant innovation in their environment empty dug up and not with the theme of personality Consumers provide theme culture nourishment to promote their brands to the maximum extent. Otherwise, they will not keep up with the pace of the market until they wither and die. Therefore, only by constantly innovating the shopping space environment can we stand out from the winners and losers and innovate a better corporate culture (Sadeghi & Bijandi, 2011). Various types of innovative themes bring new vitality to the design of the shopping space environment and provide more development space and more possibilities for business. The monotonous design concept will be gradually eliminated and finally sealed by history, while the innovative shopping center space will display its unique style. The shopping center gradually presents various theme designs, which will make the commercial culture more colorful and promote the commercial culture market. The most reliable consumption relationship between businesses and consumers is not only built based on satisfying the material and interests of both sides but also depends on whether consumers can get a rich and unique consumption experience. (Azizah (2018), an expert in marketing strategy believes that "there is an essential difference between asking consumers to pay attention and asking consumers to pay attention. This also shows that the differences in design concepts between traditional shopping malls and thematic shopping malls reflect the essential differences in marketing concepts between traditional economic times and experience economic times. Brand management expert Burdschmidt also summed up five experience modules of experience marketing: emotional, sensory and cognitive experience. Physical experience and social identity experience when these five experience modules can influence each other and once they come into effect, consumers can experience a kind of new experience.

The consumption behavior theory points out that human consumption behavior is the unity of rationality and sensibility, that is, consumers tend to pursue fantasy emotional happiness when consuming (El-Adly & Eid, 2016). The latest survey report shows that the consumption pattern and lifestyles of Chinese people are gradually changing to self-development. In the process of consumption, people are becoming more and more emotional, hoping to pursue individuality and satisfy their psychological needs. Psychology of consumption divides human psychological needs into four levels: physiological needs, safety needs, self-esteem needs and self-sufficiency I fulfill a need and people who fulfill one of their needs try to fulfill another higher psychological level of themselves (Michon & Smith, 2007). Psychological needs are to pursue the highest level of since I realize it is the core of the essence of experience economy businesses trying to meet the demand of consumers of a hierarchy in the experience economy Merchants mainly provide has not only just goods. But to provide a service Create a feeling Let the customer experience Near the border of experience lasting memories for them What consumers buy is not only commodities but also time and enjoyment. It is the happiness and another way of life that goods or services bring to them. Therefore, as the display

stage of commercial activities and the thematic shopping mall of service facilities, it is required to meet the physical and psychological double needs of consumers in the space design to make consumers linger in the shopping environment (Richard Michon et al., 2010).

#### 1.2 The Statement of the Problem

This study explores how the interior design of shopping centers affects the shopping experience and proximity behavior of female shoppers. In previous studies, female shoppers were analyzed from multiple dimensions such as shopping orientation, benefits sought, shopping value, and lifestyle. However, our study uses a behavioral approach to market segmentation. This method enables us to more accurately capture the actual shopping behavior of fashion shoppers, as well as their emotions and perceptions in the interior design environment of the mall.

#### **1.3 Research Questions**

This research aims to investigate how the interior design of shopping malls affects the shopping experience and shopping behaviors of female buyers, and to guide merchants to specify targeted interior design strategies.

- RQ1. Does the perception of the shopping mall environment significantly affect female buyers' perception of product quality?
- RQ2. Does the perception of the shopping mall environment significantly affect female buyers' perception of hedonic value?
- RQ3. Does the Product quality significantly affect female buyers' perception of hedonic value?
- RQ4. Does the Product quality significantly affect female buyers' perception of utilitarian value?
- RQ5. Does hedonic value significantly affect the buying behavior of female buyers?
- RQ6. Does utilitarian value significantly affect the buying behavior of female buyers?

#### 1.4 Purpose of Study

The main purpose of this study is to study the influence factors of shopping mall interior design environment on female shoppers' shopping behavior. In other words, the author studies how interior design affects the shopping experience and behavior of female buyers. The reason why women buyers are chosen is that previous studies have shown that the buying behavior of women buyers is more affected by many factors than that of men buyers.

#### 1.5 Benefits of Research

An in-depth study of shopping mall design, to know how the design style of the mall influences the consumer and improves the cultural cohesion and commercial competitiveness of the mall so that the project can both realize its commercial value and improve the quality of public life in society. At present, the design of most shopping malls in China still lacks characteristics. As more and more shopping malls are built, there will inevitably be similarities in format, spatial treatment, and image design. This lack of a theme format will be very useful in the future. May fall into business homogenization crisis. If the function of a shopping center is limited to shopping and consumption, without the support of theme and creative elements, the project will often become mediocre. The research on interior space design of shopping malls is based on the interior space behavior of commercial shopping malls, and integrates the related theories of consumer psychology and consumer behavior. Therefore, this is conducive to the integration of commercial space interior design research with other types of research. The intersection and connection of interdisciplinary research have reached the academic significance of interdisciplinary frontier and horizontal research.

#### 1.6 Scope of Study

The target population for this study is female consumers from Chengdu, China, which has a total population of 21,192,000; therefore, the exact demographic of the target population is unknown. The study used a sample of 430 female participants from Taikoo Li Shopping Center in Chengdu, Sichuan Province, China. Data was collected by distributing questionnaires face-to-face and gifts were prepared for study participants. The effective rate of the questionnaire was 95.56%. A total of 450 questionnaires were distributed and 430 valid questionnaires were recovered.

#### 1.7 Future Research

Future research suggests that the model in this research can be carried out in different ethnic groups, religions, cultures, and countries, such as people who believe in Buddhism in Southeast Asian countries. The results can be compared with this study. In addition, comparative studies between two or more regions will make the results more universal and can be applied to more people.

#### **CHAPTER 2**

#### LITERATURE REVIEWS

#### 2.1 Definition

#### 2.1.1 Mall perception

Mall perception refers to consumers' perception of the interior design environment of the mall, which is a part of the cognition of the mall. Researchers believe that the form, expressiveness and symbolic characteristics of the store environment convey various information to consumers and may bring aesthetic and instrumental value (Michon et al., 2005). Shoppers' perceptions of the retail environment may also affect their mood. An effective shopping environment in a shopping center may affect the shopping experience, affect consumers to show more proximity behavior, and stay in Mal for a longer time (Chebat & Morrin, 2007). Consumers may use the retail environment to assess items in a variety of ways. Environmental cues (physical characteristics of the shop environment, such as lighting, music, color, and display, etc.) and social signals (perceptions of congestion and employee friendliness) have been demonstrated to impact consumers' emotional states in stores, according to studies. Their buying and purchase habits are influenced by the retail atmosphere (Hu & Jasper, 2007). In addition, Richard Michon et al. (2010) found that consumers' perceptions of the retail environment influenced their perceptions of product quality. These studies show that consumers' perception of the store affects their evaluation of the products available in the store.

#### 2.1.2 Product quality

The total of a product's features and attributes that fulfill specified and anticipated demands is referred to as product quality (Jacobson & Aaker, 1987). Any product is designed to suit the requirements of its users. Product quality should be characterized by product quality traits or attributes, whether basic or complicated items. Product quality features vary depending on product characteristics, and performance measures and indicators are likewise varied. Performance, life dependability, and maintainability, safety, adaptability, and economy are the six quality qualities that represent consumers' usage demands. To increase product quality, companies are progressively altering product design, production processes, and marketing strategies (Hallak, 2006). The revisions are a response to U.S. firms losing market share to higher-quality overseas items. Many experts who have observed Japanese firms' apparent success believe that product quality is a critical strategic

aspect. Similarly, some analysts say it is a necessary component of successful American businesses. Despite its apparent relevance, there has been relatively little empirical research on the influence of product quality on profitability or other strategic variables (Michon & Smith, 2007). In contrast, although quality may be equally or more important, market share, pricing and advertising have received more attention. PCB represents product quality assurance. Using LISREL and PIMS datasets and covariance structure analysis, the authors examined several significant correlations related to product quality. The interaction of five main strategic variables: return on investment, market share, relative pricing, relative direct cost, and relative product quality is the focus of their study. Although some of their findings are consistent with the general view, others are skeptical of the generally held concept of product quality (Michon et al., 2005).

#### 2.1.3 Hedonic value

Hedonic value is defined as a value solely for pleasure and cognitive enjoyment. It is also thought to be the opposite of success and achieving goals (Cai & Shannon, 2012). Hedonic value reflects the emotional enjoyment and value of shopping. Therefore, the hedonic value represents the cognitive level of shopping through different positive/valuable emotions that are emotionally useful. In addition to reflecting the main purpose of shopping, hedonic value can also be regarded as a shopping experience. When comparing profit-oriented value, hedonic value is more related to the spirit of individualism (Michon et al., 2008).

#### 2.1.4 Utilitarian value

Utilitarian value is defined as the extent to which the consumption demand inspired by the shopping experience can be satisfied (El-Adly & Eid, 2016). Consumer benefit behavior is described by obligation orientation and wisdom behavior. This means that consumers buy products in depth through search, which will be effective. So profit-oriented shopping is more about logic and smart shopping is about retail. Moreover, it is related to data collection rather than enjoyment-oriented behavior (Zhang et al., 2011).

#### 2.1.5 Approach behavior

Approach behavior has four characteristics: people are willing to stay in an environment; people are willing to explore the environment; people are willing to interact with other people in the environment, and the current environment enhances people's performance and satisfaction (John R, 2002). Based on the above research, Donovan and Rossiter argue that proximity behavior can also be applied to consumer behavior in physical environments, such as consumers' willingness to stay or explore the shop; the time and money they spend in the shop; and their willingness to browse other products in the shop. Just as the ambiance of a traditional retail shop affects people's behavioral outcomes, in an online shop context, where online shop cues

contribute in some way to the achievement of shopping goals, consumers will show positive or negative behavior towards a particular website (Palma et al., 2018). The environment of the online shop also influences approach behavior, which can be expressed in terms of consumers' willingness to browse, search, and interact with the online shop, their desire to buy and their loyalty, and their willingness to revisit the online shop. Approach behavior is the result of the stimulus-organism-response (S-O-R) model, where environmental cues trigger consumer emotions that influence approach behavior. In traditional retail shop environments, pleasant and evocative emotions mediate between environmental cues and consumer approach behavior (Amenuvor et al., 2019).

#### 2.1.6 Shopping mall

The shopping mall is a commercial establishment integrating shopping, culture, entertainment, leisure, food, display, etc. It is a common building facility in modern cities (Michon et al., 2010). Shopping malls usually have a small floor area and a large single-floor area, most of which are independent stores. The definition of the International Shopping Malls Council is that "shopping malls are commercial facilities planned, constructed and managed by developers; With a large number of core product stores, diversified pedestrian malls, and dedicated parking lots, it is a commercial space that can meet the daily shopping needs of consumers" (Laroche et al., 2005). According to the Classification of Retail Formats issued by China's State Administration of Quality and Technical Supervision, shopping malls are defined as "a collection of various retail and service facilities developed, designed, managed and operated by relevant enterprises" (Michon & Smith, 2007). The special point of its business structure is: that "the internal structure is composed of various professional brand stores, professional stores, and other retail formats, as well as catering and entertainment facilities. The service function is complete, integrating retail, catering, and entertainment. We will have parking lots of the same size according to the volume of sales. From the analysis of the definition of a shopping mall above, the essential difference between a shopping mall and other retail forms is that a shopping mall pays more attention to "people-oriented" service, and lays more emphasis on public relations and community service. Emphasize the collection of customers can improve and connect numerous tenant's shop (Gavilan et al., 2011).

#### 2.1.7 Interior design

Interior design is to express a central idea by designing a specific environmental space. The interior design concept can lead the positioning and formation of the interior space design style (Hoteit & Morozevich, 2020). Therefore, it is the core of the entire space design. Interior design needs to have distinctive and rich features. It gives a certain theme to the activity space, and designs surrounding facilities the established theme, so that the theme becomes the characteristic of the user's recognition of the space and the stimulus to produce consumption behavior, and

the space evolves into an Experience place (Hami et al., 2018b). When people are present, through their observation and association, they can enter the desired thematic situation. In today's market, indoor space has its cultural value. It is permeated by the influence of social culture on design and reflects diversified elements in its space design. Designers can determine the theme of interior design according to the city's unique natural environment, folklore, historical and geographical features, and local culture; analyze the use of people, space environment, and business direction to position the theme, and then use innovative expression techniques to create the atmosphere of the indoor space makes the indoor space more expressive and appealing, giving consumers a sense of visual pleasure and rich cultural connotations (Hidjaz, 2013).

#### 2.1.8 Shopping value

Shopping value is defined as "the psychological cognate value understood by consumers after comprehensive evaluation criteria. It is the value generated by consumers through shopping experience in shopping malls according to the attributes and specifications of shopping malls (El-Adly & Eid, 2016). In a very simple definition, value equals price: "Value is the same as price". Another conceptual definition shows the key role of value in the transformation process, that is, the transformation between expenses and profits (Michon et al., 2008). Simply put, it is defined as: "I get what I give." The fourth definition of shopping value includes: "All the factors that complete the shopping experience, including quality and quantity, including spirit and practice". In other words, it declares that the shopping value is multifold. In particular, shopping value includes two dimensions: experience of receiving products and enjoyment-oriented experience (Cai & Shannon, 2012).

The relationship between customers and items or services, not just in terms of the things themselves, but also in terms of the consumption experience, is what shopping value is all about. It is concerned with the inherent and extrinsic worth of things. Shopping delivers more than just practical usefulness and task-oriented rewards; it also gives various forms of enjoyment and fulfillment. The perceived shopping value is summarized by the two aspects of utilitarian and hedonic shopping value (Sadeghi & Bijandi, 2011). Hedonic values imply personal gratification and self-expression linked with the shopping experience, whereas utilitarian values emphasize task orientation. Shopping influence has been demonstrated to have a favorable impact on customers' perceived shopping value, which in turn has a beneficial impact on their persistent repeat buy behavior (El-Adly & Eid, 2016).

#### 2.2 Research on the Development of Shopping Malls

The shopping mall model originated from the tribal markets of ancient kingdoms (such as Greece). After the Second World War, with the rapid development of industry, huge changes have taken place in the areas of commodity production, circulation, and consumption. New retail methods and business Building types have formed and

developed rapidly (Michon et al., 2010). Following the formation and spread of century department stores and supermarkets, shopping malls have gradually flourished in European and American countries, and then have been widely spread around the world with the development and mutual penetration of the world economy (Laroche et al., 2005). Today, the concept of shopping malls has been widely accepted. In my country, with the opening up to the outside world and the strengthening of international economic ties, shopping malls have emerged and gradually become an important trend in the development of the retail industry (Michon & Smith, 2007). In the 1990s, with the continuous improvement of domestic residents' material life and increasingly fierce market competition, commercial real estate was developed vigorously, and shopping malls integrating catering, entertainment, shopping, and leisure became popular. The diversified characteristics of shopping malls have also been gradually enlarged. Designers are increasingly emphasizing the leisure functions of the shopping environment, providing consumers with dining, resting and sitting places to relieve fatigue and socialize, making shopping easier and more enjoyable. The pure consumption space is no longer the ideal place that people expect (Gavilan et al., 2011). While creating a diversified shopping space, it also pays more attention to its cultural, amusement, and local commercial atmosphere. At the same time, many shopping malls pay attention to the excavation of their operating characteristics, and keen merchants have begun to look for characteristic themes that suit their operations to maximize their advantages. They began to focus on shaping their business philosophy, establishing the shopping mall's own corporate culture, and passing it on to consumers through the careful design of the business environment. Therefore, themed shopping malls have gradually become one of the mainstream the business development model of the century by their own distinctive distinctive thematic features and rich cultural connotations (El-Adly & Eid, 2016).

#### 2.3 Previous Research on Consumption Patterns

In the modern information society, consumers' shopping styles are changing. People's consumer demand is no longer purely at the material level, but gradually rises to the spiritual level (Laroche et al., 2005). Therefore, the trend of personalization, emotionalization, and diversification has gradually emerged in shopping. Shopping malls transform from a "things" consumption space to a "spiritual" space, and people regard the shopping space environment as the "dance stage" of life. With the improvement of living standards and the change of lifestyle, people have paid more and more attention to leisure and entertainment time, which makes their consumption pattern also change gradually from the original survival type to survival and enjoyment type and then to service and experience type (Alavi et al., 2016). "Visual shopping" is the traditional mode of consumption, that is, people purposefully go to shopping malls to buy goods. With the change in people's life concepts, "exploratory shopping" is emerging, that is, people go shopping without specifying what they want to buy. The attractive shopping environment can stimulate

consumers' interest and arouse their curiosity to discover new products, thus generating consumption. It can be seen that people pay more and more attention to their quality of life and spiritual needs. The design of shopping malls should not only meet the material needs of consumers but also pay attention to their spiritual needs (Rook, 1985). The proportion of people's consumption on daily necessities in the whole consumption expenditure is gradually decreasing, and consumers spend more on education, entertainment, culture, and other spiritual and cultural aspects. Therefore, people's leisure ways are increasingly diversified, prompting businesses to further optimize the shopping environment and consumption structure (Hallak, 2006).

Table 2.1 Summary of Previous Study

No.	Topic	Author	Objective	
1	The Influence of the Mall	Zhang Yan (2011)	Mall environment;	
	Environment on Shoppers'	COLUMN TO SERVICE STATE OF THE PARTY OF THE	Consumer behavior;	
Values and Consumer		Accesses to the second	Shopper's values;	
Behavior in China		and something of	utilitarian; hedonic.	
2	Public preferences toward	Ahmad Hami et al.,	CIM method; Interior	
	shopping mall interior	(2018)	landscaping in a shopping	
	landscape design in Kuala		mall; Open space in a	
	Lumpur, Malaysia		business environment;	
		TTT TO SERVICE	preference studies	
3	Mall atmospherics: the	Richard Michon et	Mall environment;	
interaction effects of the		al., (2003)	Shopping behavior;	
mall envir <mark>onment on</mark>		13/19	Ambient odor	
	shopping behavior			
4	Creating an inclusive mall environment with the	Sara Ahmed et al., (2016)	PRECEDE PROCEED; participation; inclusion;	
	PRECEDE-PROCEED	(2010)	environment; enabling	
	model: a living lab case	- O// S	on in onlinent, chaoming	
	study	The same		
5	A Qualitative Study of	Hu & Jasper (2007)	Mall Shopping Behavior;	
	Mall Shopping Behaviors	HISBIT	qualitative Study; Mature	
	of Mature Consumers		Consumer	

#### 2.4 The Environmental Psychology Theory

According to the environmental psychology idea, the mall environment should have an impact on consumers' moods and behavior. The hypothesis is based on emotional alterations that result in two types of behavior: closeness and avoidance (Winkel et al., 2009). Instead of avoiding it, the strategy is to desire to remain longer, investigate the area, and form bonds with other consumers and/or salespeople.

However, in recent years, several studies have failed to duplicate any direct emotional alterations following exposure to environmental signals, putting this traditional emotional cognitive paradigm to the test. Instead, these researchers discovered that ambient signals had a direct impact on perception, supporting Dijksterhuis et al. (2005) theory of emotional cognition. You must evaluate external and internal cues against your own experience and goals. "An assessment of the importance of the relationship between man and the environment is, therefore, both necessary and sufficient; Without personal evaluation (that is, harm or benefit) there can be no emotion; When such an evaluation is made, a certain emotion is unavoidable ". In her model of Service scopes, Laroche et al. (2005) assumed that people first perceive their overall environment and then respond with more perceptual reasoning, and emotional and even biological responses. Perception-influence theory is empirically supported in the retail environment and serves as the overall conceptual framework for current research (Winkel et al., 2009).

Table 2.2 Overview of literature reviews.

Authors	Country	Purpose	Summary points	
Erin et al.,	TUR	A taxonomy of	Considering the	
(2018)		quantitative urban	improvement of urban	
		morphology methods and	form, it cannot be denied	
	(P)	how they can be applied to	that urban form is one of	
		urban design and	the most promising inputs	
	\$750J	environmental psychology	in the research and	
	1353571	4747	practice of urban design	
	L AND		and environmental	
	1 5 II		psychology. More	
	3011		research is being	
	131		conducted to investigate	
	100		objective parameters of	
	10	urban form to improve		
	1	community satisfacti		
		. offill o	and encourage walking in	
			the community.	
Velarde et al.,	NOR	Analyze the range of	Major health aspects of	
(2007)		landscapes used in	landscape elements are	
		environmental psychology	associated with	
		research and evidence of	behavioral changes that	
		health effects associated	reduce stress, improve	
		with viewing these	concentration, promote	
		landscapes.	disease recovery, improve	
			physical health in older	

			adults, and improve mood and overall health.
Steg & Vlek (2009)	NL	Discuss how environmental psychologists have conducted empirical research on these four topics, identify apparent shortcomings to date, and identify major issues for future research.	The four key questions are(1) identifying the behavior to change, (2) examining the main factors behind that behavior, (3) applying the intervention to change the behavior and its determinants, and (4) evaluating the effect of the intervention on the behavior itself. The impact of its major determinants on the quality of the environment and the quality of human life.
Jorgensen & Stedman (2001)	USA	Several measurement models based on attitude structure have been proposed as potential explanations for the scale's construct validity.	The results show that the SOP scale measures a general sense of place dimension expressed in owners' thoughts, feelings, and behavioral commitments to their lakefront properties.

#### 2.5 Research Hypothesis

Research hypotheses are derived in part from theories of environmental psychology, cognitive theory of emotion, retail climate and shopping value (Cai & Shannon, 2012).

Shoppers' perception of the retail environment may affect their mood. The retail environment can be an important basis for consumers to evaluate products (Hu & Jasper, 2007). Michon et al. (2010) found that consumers' perceptions of the retail environment influence their perceptions of product quality. Richard Michon et al. (2005) studied the regulatory effects of environmental odors on shopper mood, retail environment perception, and product quality perception under different retail density levels. After path analysis, it is found that the path from mall perception to product quality is significant. Chebat and Morrin (2007) explored the influence of warm and cool color Mall decoration on shoppers' Perception through subculture, and found that

Mall Perception had a significant impact on product quality, especially the color match of the mall. When the Mall displayed warm color decoration, French Canadians had a higher opinion of product quality. When stores displayed cool decor, Anglo-Canadians rated the quality of the products higher. These studies show that consumers' perceptions of shopping malls affect their evaluation of existing products in shopping malls, so the following hypotheses are put forward:

H1 Mall Perception positively affects female buyers' perception of product quality.

The retail environment can be an important basis for consumers to evaluate products (Michon et al., 2005). Studies have shown that environmental cues (physical aspects of the store environment, such as lighting, music, color, display, etc.) and social cues (views on crowding and employee-friendly) are important atmospheric factors that affect the emotional state of consumers in the store (Wesley et al., 2006). Afaq et al. (2020) investigated consumers in shopping malls in Pakistan and found that Mall Perception, especially the harmonious atmosphere, had a positive impact on consumers' intention to patronize. Stoel et al. (2004) research investigates consumers' views on the attributes of shopping malls. Mall shoppers were surveyed about their satisfaction with the attributes of their local mall, the value they got from shopping at that mall, resource expenditure, and re-visit intentions. The study found that Mall Perception has a significant impact on buyers' Hedonic value. A study of mall shoppers in two North American cities found the phenomenon of store image shifting and its impact on creating value for shoppers and attracting store visits. Mall image overflows Mall Perception located in the mall, which occurs through the self-coordination mechanism of shoppers. In addition, Mall Perception influences hedonic value through self-consistency (El Hedhli et al., 2017) So the following assumptions are made:

H2 Mall Perception positively affects female buyers' hedonic value.

Diefenbach and Hassenzahl (2019) found systematic comparisons that provide a deeper, qualitative understanding of the hedonic value and product quality and their relevance in product experience and selection through case studies in the field of interaction technology. The results showed that product quality had a significant impact on hedonic value. Han et al. (2018) investigated the shopping behavior of duty-free shops at airports and found that product quality also showed relative importance in cognitive driving factors, and product quality would have a significant impact on buyers' hedonic value. In the field of catering, Kim and Han (2008) found that restaurant quality factors of restaurant products are important determinants of buyers' Hedonic value. Han and Hyun (2017) showed in their recent study of customer behavior in luxury hotel restaurants that physical environment, service, and product quality are significantly positively correlated with cognition and buyers' hedonic value in the formation of customer behavior. Luxury hotel restaurant product

intent. In their examination of the airport's physical atmosphere, Moon et al. (2016) Determining the quality of the physical environment is an important factor causing the buyers' Hedonic value of air passengers at the airport.

H3 Product quality positively affects female buyers' hedonic value.

High-end department shops are the most common anchors in most conventional mall environments, where high-quality items are anticipated and usual. Assuming that all customers want higher-quality goods, malls with higher-quality goods will make shopping easier and lead to greater utility (Babin et al., 2004). Han and Hyun (2017) investigated the impact of hedonism and utilitarian values on customer satisfaction and behavioral intention in the food industry and found that product quality had a positive impact on utilitarian value. After investigating customers of fast-casual restaurants in Iran, Nejati and Moghaddam (2013) found that food quality has a significant positive impact on utilitarian value. Jones et al. (2006) investigate the complex interrelationships between satisfaction with retailers, hedonic and utilitarian shopping values, and important retail outcomes. The results support that Product quality will affect the utilitarian value of buyers. So the following assumptions are made:

H4 Product quality positively affects female buyers' utilitarian value.

Shopping value involves the interaction between consumers and products or services, which is not only related to the goods themselves, but also related to consumer experience. It involves the internal and external value of the object (Dijksterhuis et al., 2005). Shopping goes far beyond functional utility and task orientation (El-Adly & Eid, 2016), and provides other experiential benefits and satisfaction(Ahmed et al., 2017). Ryu et al. (2010) claimed that the utilitarian value and hedonic value perceived by consumers will significantly affect consumer satisfaction and future intentions. Satisfaction plays an important role in the formation or change of future intentions. Virvilaite and Saladiene (2012) noticed that some consumers express stronger hedonic values, so expectations of shopping and behavior may be different. These arguments confirm the unity of further theoretical research on the influence of hedonic value on consumer behavior. Kazakevičiūtė and Banytė (2013) prepared a conceptual model of the relationship between consumer perception of hedonic value and behavior, revealing the relationship between hedonic value and consumer behavior. Research has found that hedonic value has a significant impact on consumer behavior.

H5 Hedonic value positively affects female buyers' approach behavior.

The two dimensions of utilitarian and hedonic shopping value summarize perceived shopping value (Laroche et al., 2005). Hedonic value reflects personal gratification and self-expression connected to the shopping experience, whereas utilitarian value shows task orientation. Consumers' persistent repeat purchasing

behavior was revealed to be positively influenced by shopping influence (Cai & Shannon, 2012). Overby and Lee (2006) studied the correlation between the value dimension of online shopping and the relationship between value dimension, preference for Internet retailers, and intention. Results from large-scale studies show that utilitarian values are more strongly correlated with preferences and intentions for Internet retailers than hedonic values, and that frequency of shopping can be a moderator. Ryu et al. (2010) investigated college students in the Midwest of the United States and found that utilitarian values significantly affect customer satisfaction, while customer satisfaction has a significant impact on behavioral intention. The relationship between utilitarian value and behavioral intention plays a partial intermediary role. Hanzaee and Rezaeyeh (2013) surveyed students who purchased fast-food restaurants in universities and found that utilitarian values have a direct impact on customer satisfaction, and customer satisfaction directly affects behavior intention. Utilitarian value has more influence on behavior intention than hedonic value. So the following assumptions are made:

H6 Utilitarian value positively affects female buyers' approach behavior.



#### **CHAPTER 3**

#### RESEARCH METHOD

#### 3.1 Conceptual Framework

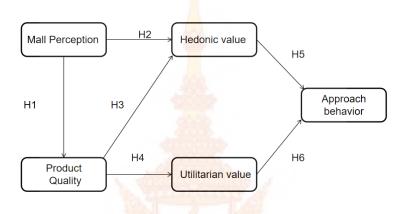


Figure 3.1 The Conceptual Framework of this research

Source: Constructed by author

#### 3.2 Research Method

In the questionnaire, the basic demographic data of the respondents were obtained from the demographic questionnaire. The 5-point Likert questionnaire was designed to collect quantitative data on the influencing factors of shopping mall interior decoration design among female consumers. To confirm the validity and reliability of the questionnaire and whether the questionnaire was constructed correctly, the research tools were tested. Fifty researchers examined research tools and revised questionnaire questions. The survey was conducted in April 2021. For accurate analysis of the collected data, AMOS 23.0 and SPSS 26.0 were used. SPSS software was used to test the reliability of statistics and demographic information of the survey data, and then AMOS was used to conduct exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and structural equation modeling (SEM).

#### 3.3 Research Design

The goal of this research is to "apply" the method to effectively assess the role of buyer behavior in shopping centers and stores, as well as the design and layout of shopping centers and product shopping centers, in improving satisfaction and sales. Coherence approaches, on the other hand, are based on three coherence categories in terms of the connection between variables, according to descriptive data collecting methods: target, coherence matrix analysis, or covariance.

This study included female buyers of Taiguri Shopping Mall in Chengdu. The sampling method used in this study is simply accidental or infinite. In a simple sampling scheme, members of statistical associations have an equal chance of being selected as testable subjects. The total sample size was 450. Prepared questionnaires were distributed in Chengdu Taikoo Li Shopping Center for 2 months, and 430 observations were evaluated after eliminating missing/unnecessary values. The study had a response rate of 95.56 percent. The high volume is due to the consistency of the questioner and the responder.

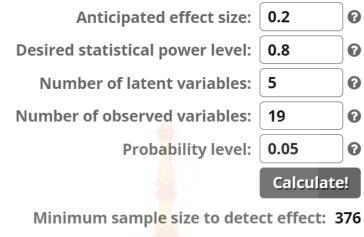
#### 3.4 Population and Sample Selection

#### 3.4.1 Population

The population in this study is female shoppers in Chengdu, Sichuan Province, China, using data obtained through a face-to-face survey of female shoppers at Taikoo Li Shopping Center in Chengdu. All respondents to this study agreed to participate in the survey in person. The survey prepared some gifts for participants to thank them for their active participation.

#### 3.4.2 Sample Size

The researchers will use Yamane (1967) 's equations at a 95% confidence level and 0.05 accuracy level to determine the sample size.



Minimum sample size for model structure: 112

Recommended minimum sample size: 376

Figure 3.2 The sample size of this research

Source: https://www.danielsoper.com/statcalc/calculator.aspx?id=89

Since the purpose of this study is to investigate the impact of interior design on the values and behaviors of female mall shoppers, the sample is all female, and screening questions will be set in the questionnaire to ensure that all questionnaires are from female shoppers. As can be seen from Figure 3.1, the minimum sample size is 376. Considering that the questionnaires are not all valid, the author put in a total of 450 questionnaires, and finally recovered 430 valid questionnaires.

#### 3.5 Design of Questionnaire and Scale

□ 36-50

This study used a questionnaire survey, which was a data set created through a review of relevant literature. The questionnaire can be divided into three parts;

Part 1: Closed-end questions about the demographic characteristics of the participants, including gender, and income.

# 1. Your gender □Female □Male (Please stop completing this questionnaire and return the questionnaire to the investigator) 2. Your age is over □ < 20</li> □ 20-35

- 3. Your income (monthly)
- □Less than 3000 RMB
- □3000-6000 RMB
- □6001-9000 RMB
- □More than 9001 RMB

Part 2: Closed-ended answer questions about 5 factors that influence purchase intention, including:

Table 3.1 Number of questionnaires for 5 factors that affect purchase intention

Mall Perception	5 Questions
Product quality	3 Questions
Hedonic value	5 Questions
Utilitarian value	3 Questions
Approach behavior	3 Questions

Notes: Number of questionnaires for 5 factors that affect purchase intention (by author).

Because the items in the questionnaire were drawn from scales that had been validated in previous studies, all 19 questions passed the IOC and were all retained for the questionnaire session. In the data analysis phase after the questionnaire collection was completed, all 19 questions were retained after passing the exploratory factor analysis (EFA) and validation factor analysis (CFA). The specifics of these IOC, CFA, and EFA will be reported later.

This part is measured on an interval scale by using a Five-point Likert Scale to measure the level of agreement.

Table 3.2 Five-point Likert Scale

Strongly Disagree	1 points
Disagree	2 points
Neutral	3 points
Agree	4 points
Strongly Agree	5 points

Source: Vagias, Wade M. (2006). "Likert-type scale response anchors. Clemson International Institute for Tourism & Research Development, Department of Parks, Recreation, and Tourism Management. Clemson University.

Table 3.3 Summary of the source of the questionnaire

Mall Perception	Referen	ce	
I think shopping malls are bright.	Fisher (	1974)	
I think shopping malls are colorful.	Fisher (	1974)	
I think shopping malls are exciting and lively.	Fisher (	1974)	
I think shopping malls are cheerful and interesting.	Fisher (	1974)	
I think shopping malls are comfortable and relaxed.	Fisher (	1974)	
Product Quality	Referen	ce	
I think shopping malls offer the latest styles of products.	Bellizi	et	al
I think shopping malls have a good selection of products.	Bellizi	et	al
I think the products available in shopping malls are high. quality	Bellizi	et	al
Hedonic value	Referen	ce	
Compared with other things I could have done, the time spent shop- ping was truly enjoyable.	Babin (1994)	et	al
While shopping, I felt a sense of adventure.	Babin (1994)	et	al
I enjoyed being immersed in exciting new products.	Babin	et	al
This shopping trip truly felt like an escape.	Babin	et	al
This shopping trip was truly a joy.	Babin	et	al
Utilitarian value	Referen	ce	
While shopping, I found just the item(s) I was looking for.	Babin	et	al
I accomplished just what I wanted to do on this shopping trip.	Babin	et	al
I couldn't buy what I needed.	Babin	et	al
Approach behavior	Referen	ce	
I like this shopping center	Donovan & Rossiter (1982)		
This shopping center is a place where I would easily speak to a Salesperson.	Donova Rossiter (		& )

This is the kind of place where I would spend more money than	Donovan	&
Expected.	Rossiter (1982)	

#### 3.6 Collection of Data

The 19-item scale was subjected to exploratory factor analysis (EFA) using varimax rotation. A small sample size was used for testing, with a sample size of 50.

Table 3.4 Scale Items, Factor Loadings, and Reliability Coefficients

(c)	1	2	3	4	5
Mall Perception		1		•	•
MP1	0.855	0.134	0.085	0.054	0.022
MP2	0.861	0.115	0.086	0.052	0.077
MP3	0.812	0.150	0.123	0.020	0.063
MP4	0.813	0.061	0.236	0.041	0.025
MP5	0.785	0.113	0.323	0.059	0.065
Product Quality	m				
PQ1	0.282	0.755	0.163	0.093	0.072
PQ2	0.288	0.742	0.108	0.017	0.088
PQ3	0.298	0.776	0.198	0.036	0.069
Hedonic Value	SALO!				
HV1	0.188	0.063	0.730	0.123	0.196
HV2	0.179	0.082	0.722	0.197	0.072
HV3	0.085	0.189	0.699	0.218	0.051
HV4	0.133	0.222	0.697	0.075	0.085
HV5	0.142	0.178	0.619	0.313	0.134
Utilitarian Value		// <u>5</u>	7		
UV1	0.106	0.067	0.125	0.801	0.211
UV2	0.087	0.088	0.391	0.751	0.049
UV3	0.019	0.086	0.225	0.756	0.228
Approach Behavior					
AB1	0.199	0.124	0.156	0.069	0.833
AB2	0.025	0.1763	0.068	0.084	0.775
AB3	0.085	0.032	0.243	0.098	0.731

Notes: Scale Items, Factor Loadings, and Reliability Coefficients (by author).

The management of effectiveness is the way measurements can be made to measure the characteristics/specifications under consideration. In preparing the questionnaire, it should be mentioned that this questionnaire has appropriate validity based on the standard questionnaire used by Richard Michon et al.(2008). Reliability is a measure of trust in test results. All 19 questions are retained.

#### 3.7 Research Methodology

#### 3.7.1 Reliability test

Cronbach's alpha test was used to verify the reliability of each variable. An instrument has good reliability if it has a minimum alpha score of 0.6 and overall reliability of 0.7 or higher(Bagozzi, 1982). The higher the precision coefficient, the higher the reliability of the measurement. Davies and Hughes (2014) summarized it as follows: 0.60~0.65 (preferably not); 0.65~0.70 (minimum acceptable value); 0.70~0.80 (good); Therefore, a good reliability scale or questionnaire should be in the acceptable range of 0.80 to 0.70 to 0.80. The sub-scale is better than 0.70, and between 0.60 and 0.70 is acceptable.

Table 3.5 Criteria of Reliability

Cronbach's Alpha	Desirability level Reliability Level	
Less than 0.30	Unacceptable	Very Low
0.30-0.49	Poor	Low
0.50-0.69	Fair	Medium
0.70-0.79	Good	High
0.80-1.00	Excellent	Very High

Source: van Zyl, J. M., Neudecker, H., & Nel, D. G. (2000). On the distribution of the maximum likelihood estimator of Cronbach's alpha. Psychometrika, 65, 271-280.

Table 3.6 Cronbach's Alpha and compound reliability

., o 14 ( 14 S ) .	Cronbach alpha	
Mall Perception	0.83	
Product quality	0.72	
Hedonic value	0.75	
Utilitarian value	0.83	
Approach behavior	0.85	

Notes: Cronbach's Alpha and compound reliability (by author).

#### 3.7.2 Convergent validity

The convergence efficiency of the measurement model needs to be evaluated by all standardized factor loads in the project that exceed the minimum standard of 0.50 (Ford et al., 1986). The composite reliabilities had desirable levels for all the constructs, ranging from 0.815 to 0.969 (Bagozzi & Yi, 1988). The average variance extracted (AVE) was above the recommended level of 0.50 further supporting convergent validity. Additionally, scale reliability values were well above 0.7. Thus, the model fulfilled the requirement of convergent validity as suggested by Hair et al (2010).

#### 3.7.3 Discriminant validity

The discriminant validity of the model is checked using the method. All of the AVE values for each construct were greater than the corresponding values of the squared multiple correlations among the constructs, indicating that all of the constructs had discriminant validity (Fornell & Larcker, 1981).

#### 3.7.4 Path Analysis

The main purpose of this study is to investigate the influencing factors of shopping mall indoor environment design on the consumption behavior of female shoppers. To analyze the relationships in the research framework, we performed a structural equation model (SEM)-based path analysis using SPSS 26.0 and AMOS 23.0.

#### 3.7.5 Confirmatory factor analysis

Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) are two types of factor analysis (CFA). Unlike EFA, CFA must be based on a specific theoretical perspective or conceptual framework, and then mathematical procedures must be used to confirm whether the econometric model derived from this theoretical perspective is appropriate and reasonable (Hair et al., 2013). Therefore, EFA attempts to determine the structural validity of the scale or questionnaire, while CFA attempts to assess the logic and authenticity of the scale or questionnaire. After exploratory factor analysis of small samples, it is still necessary to verify the existence of factor models such as shopping center perception, product quality, hedonic value, and utility value. The structural equation model (SEM) was used here to see if the model applies to data with a wide range of sample data regions (Hair et al., 2014). In SEM analysis, fitting indicators are usually used to test and select models. These fitting indexes mainly include X² / DF, GFI, AGFI, NFI, CFI, IFI, and RMSEA. The following table shows the test reference values of each fitting index.

Table 3.7 Structural equation fit metrics

Index	Ranges	Source	
NFI	>0.90	Arbuckle (1995)	
TLI	>0.90	Vandenberg & Scarpello (1994)	
CFI	>0.90	Hair et al. (2010)	
RMSEA	<0.08	Browne & Cudeck (1993)	
$X^2/df$	<3.00	Hair et al. (2006)	
GFI	>0.85	Forza & Filippini (1998)	

#### 3.8 Suggestions of the Three Experts on the Questionnaire

Two of the three experts are from three Marketing major fields and one is from the field of psychology, and all three experts believe that it is necessary to study the factors that affect the purchasing attitude and behavior of female shoppers in the indoor environment of shopping malls. Uncover the motivations behind female consumers' buying behavior. The three experts agreed that the questionnaire is a classic questionnaire used in previous studies, and the questionnaire questions are suitable for this study and further research. An expert believes that Bellizzi's questionnaire is a classic questionnaire for studying consumer behavior. Many studies have proved that it is reliable and effective. The content of this study is also applicable to the influencing factors of female shoppers' shopping attitude and behavior in the indoor environment of shopping malls. None of the three experts proposed any amendments to the questionnaire and considered that the questionnaire could be used in this study.

Table 3.8 IOC test of three experts' information.

Name	Academic degree	Major field	Experience	
Meizi Huan	Ph. D	Psychology	15 years	
Xiaodong Zhen	Ph. D	Marketing major	12 years	
Shuyu Zhuang	Ph. D	Marketing major	12 years	

Source: Constructed by author

#### **CHAPTER 4**

#### **DATA ANALYSIS**

#### 4.1 Reliability Test of Research Instrument

Descriptive research is a typical project research approach. It refers to the documentation of many areas of research, data collecting, and data, with a focus on the static depiction of objective facts. The vast majority of marketing research is descriptive. Descriptive research may be utilized in a company's marketing operation plan to study female consumers' interior design of shopping malls and their shopping behavior.

The descriptive study's goal was to characterize the link between mall perception, product quality, hedonic value, utilitarian value, and approach behavior. Quantitative research entails determining the number of items in a scientific study, that is, representing samples with a wide range of issues and occurrences, and then analyzing, testing, and explaining the results to arrive at a meaningful conclusion. The purpose of the descriptive study included describing the relationship between Mall Perception, Product quality, Hedonic value, Utilitarian value, and Approach behavior. Quantitative research is to determine the number of things in scientific research, that is, to represent samples with many problems and phenomena, and then analyze, test, and explain, to obtain meaningful research methods and processes. A sample survey is not a comprehensive survey. This is a survey method used to survey certain units of all respondents and to estimate and infer all responses on this basis. The researchers handed out questionnaires face-to-face.

### 4.1.1 Exploratory Factor Analysis Table 4.1 KMO and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.813
Bartlett's Test of Sphericity   Approx. Chi-Square		774.792
	df	210
	Sig.	.000

Notes: N=430

The KMO values of all the scales were 0.813 and were found to be above 0.70 and Chi-Square was 774.792, df was 210, and sig was 0.000. Passed KOM and Bartlett's test.

#### **4.2 Census Data Analysis**

Table 4.2 Frequency of Demographics

Item	Variables	Frequency (f)	Percentage (%)
Gender	Female	430	100%
	Male	0	0%
	Below 3000 RMB	65	15.1%
Income	3000-6000 RMB	215	50%
	6001-9000 RMB	80	18.6%
	More than 9001 RMB	70	16.3%
	< 20	60	14%
Age	20-35	247	57.4%
	36-50	73	17%
	>50	50	11.6%

Notes: N=430; Frequency of Monthly Income (by author).

As shown in Table 4.2, because the study was targeted at women, all 430 respondents were female after screening the questions. Men were not the target group for this study. There are 15.1 (N=65) respondents with a monthly income of less than 3,000 RMB, 50% (N=215) of respondents with a monthly income of 3,001-6,000 RMB, and 18.6% (N=80) with a monthly income of 6001-9000 RMB, 16.3% (N=70) of the respondents, the monthly income is more than 9001 RMB. The highest proportion of respondents was those earning 3000-6000RMB, indicating that a high proportion of respondents were middle-income earners. As shown in the table, approximately 14% (N=60) of the participants were younger than 20 years old, and 57.4% (N=247) was 20-35 years old. 36-50 years old accounted for 17% (N=73), and over 50 years old accounted for 11.6% (N=50). In terms of age, the largest proportion of respondents were aged 20-35, which indicates that consumers in this age group, are the main group of shoppers in Chengdu's shopping malls.

#### 4.3 Model Goodness of Fit

Table 4.3 Potential Facet Reliability Analysis

Facet	Index	std.	p	SMC	C.R.	AVE
Mall Perception	MP1	0.714	***	0.51	.914	.683
	MP2	0.884	***	0.781		
	MP3	0.897	***	0.51		
	MP4	0.919	***	0.805		
	MP5	0.687	***	0.472		
Product Quality	PQ1	0.862	***	0.743	.899	.750
	PQ2	0.964	***	0.929		
	PQ3	0.759	***	0.577		
Hedonic Value	HV1	0.890	***	0.792	.884	.606
	HV2	0.876	***	0.767		
	HV3	0.664	***	0.441		
	HV4	0.694	***	0.482		
	HV5	0.741	***	0.55		
Utilitarian Value	UV1	0.737	***	0.543	0.759	0.515
	UV2	0.795	***	0.632		
	UV3	0.608	***	0.370		
Approach	AB1	0.686	***	0.47	0.742	0.489
Behavior	1	1		W/JA		
X.	AB2	0.676	***	0.457		
P	AB3	0.735	***	0.54		

Note: \*p<.05; \*\*p<.01; \*\*\*p<.001; N=430 (by author).

It can be seen from Table 4.3 that the C.R. of all facets is greater than 0.7, reflecting the good composite reliability of the facets. Except for Approach Behavior, the AVE of all other indexes is greater than 0.5, and the convergent validity is good. The AVE value of Approach Behavior is 0.489, which is between 0.36 and 0.5, which is an acceptable range, so the convergent validity of all Indexes is acceptable in the range.

Table 4.4 Computation of degrees of freedom

Minimum was achieved
Chi-square = 463.685
Degrees of freedom = 375
Probability level = .000

Notes: N=430(by author).

Table 4.5 The model fit summary showing the goodness of fit

Goodness of fit	Recommended values	Recommended values	Remarks
X <sup>2</sup> /df	< 3.0	1.236	Fit
GFI	>0.85	0.933	Fit
CFI	>0.90	0.954	Fit
TLI	>0.90	0.924	Fit
RMSEA	< 0.08	0.052	Fit
P value	<.05	0.001	Fit

Notes: N=430; The model fit summary shows the goodness of fit (by author).

The above table shows the fitting parameter values of the revised tissue health factor structure model. From this, it can be seen that the factor model's  $X^2/df$  is 1.236, which is close to 1, and the RMSEA value is 0.052<0.06. The model fits well. The goodness of fit index GFI was 0.933 higher than 0.85, CFI was 0.954, and TLI was 0.924, both higher than the standard of 0.9, so the data fit was good.

Table 4.6 Correlation matrix of the constructs

Construct	PQ	CK	PM	ATT	BE
Product quality	1	Ŷ			
Consumer knowledge	0.176***	1			
Purchase motivation	0.424***	0.113***	1		
Attitude	0.181***	0.342***	0.270***	1	
Behavior	0.476***	0.443***	0.608***	0.192***	1

Note: \*p<.05; \*\*p<.01; \*\*\*p<.001; N=430 (by author).

## 4.4 Hypotheses Test

The main purpose of this study is to explore the influence of marketing factors of shopping center interior design on female shoppers' consumption behavior and intention. To analyze the relationships in the research framework, the researchers used path analysis based on structural equation modeling (SEM). The results of this analysis are shown in the figure, and Table 4.7 shows the normalized estimated coefficients and assumed results for each path.

Table 4.7 Results of structural equation model analysis. Relationships

Relationships	Hypotheses	Estimate	p-value	Result	
Mall Perception—>Product quality	H1	0.572***	0.001	Supported	
Mall Perception —> Hedonic value	H2	0.633**	0.01	Supported	
Product quality —> Hedonic value	Н3	0.616***	0.001	Supported	
Product quality —> Utilitarian value	H4	0.20**	0.01	Supported	
Hedonic value —> Approach	H <sub>5</sub>	0.429**	0.01	Supported	
behavior	A				
Utilitarian value —> Approach	H6	0.651***	0.001	Supported	
behavior					

Note: \*p< .05; \*\*p< .01; \*\*\*p< .001; N=430; Results of structural equation model analysis. Relationships (by author).

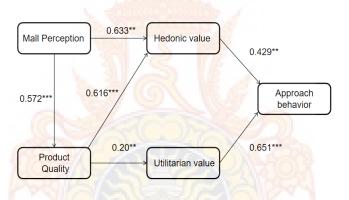


Figure 4.1 Output of structural model with standardized estimates

Note: \*p<.05; \*\*p<.01; \*\*\*p<.001; N=430; Output of structural model with standardized estimates (by author).

Analysis of the data using a structural equation modeling program revealed that all structural path coefficients were positive and significantly indicated a positive effect on purchase behavior. From the standardized estimates, Hypothesis 1 revealed a significant impact of mall perception on product quality ( $\beta = 0.572$ , p < .001), which was a moderate impact. Further analysis showed that mall perception had a significant positive and moderate effect on hedonic value ( $\beta = 0.633$ , p < .001), which supported Hypothesis 2. Product quality also showed a significant and moderate effect on hedonic value ( $\beta = 0.616$ , p < .001), a finding that supports Hypothesis 3. Data analysis also found that product quality had a significant small-scale effect on utilitarian value ( $\beta = 0.20$ , p<.01), supporting Hypothesis 4. Both hedonic value and

utilitarian value showed moderate-scale effects on approach behavior, with  $\beta$ =0.429, p<.01 supporting Hypothesis 5, and  $\beta$ =0.651, p<.001 supporting Hypothesis 6.



## **CHAPTER 5**

## CONCLUSION AND DISCUSSION

#### **5.1 Conclusion and Discussion**

Fashion, particularly women's fashion, is becoming more prominent in regional retail complexes. Environmental signals are received and felt in the same way regardless of fashion trends, as evidenced by the invariant route correlations among all latent structures save one. Fashion, especially women's fashion, is more and more prominent in regional retail complexes. Regardless of fashion trends, environmental signals are received and perceived in the same way, as evidenced by the invariant path correlation between all potential structures except one.

RQ1 is that the perception of the shopping mall environment significantly affects female buyers' perception of product quality, and the author found that the perception of the shopping mall environment significantly affects female buyers' perception of product quality.

RQ2 is that the perception of the shopping mall environment significantly affects female buyers' perception of hedonic value, and the author found that the perception of the shopping mall environment significantly affects female buyers' perception of hedonic value.

RQ3 is that product quality significantly affects female buyers' perception of hedonic value, and the author found that Product quality significantly affects female buyers' perception of hedonic value.

RQ4 is that product quality significantly affects female buyers' perception of utilitarian value, and the author found that product quality significantly affects female buyers' perception of utilitarian value.

RQ5 is that hedonic value significantly affects the buying behavior of female buyers, and the author found that the hedonic value significantly affects the buying behavior of female buyers.

RQ6 is that utilitarian value significantly affects the buying behavior of female buyers, and the author found that utilitarian value significantly affects the buying behavior of female buyers.

Regional malls are increasingly emphasizing fashion, particularly female fashion. Environmental signals are received and felt in the same way regardless of fashion proclivity, as evidenced by the invariant path link between all latent components save one. The atmosphere of a mall has a major and noticeable influence on the behavior of fashion consumers. Female customers at the low end of the fashion spectrum appear to be reacting no better than fashion-forward shoppers. However, customers with a

strong proclivity for fashion may expect a larger hedonic reaction and approach to behavior.

#### 5.2 Results and Discussion

The mall under investigation does not specifically target any fashion category. Only among middle-of-the-road fashion customers are the mall environment and product views likely to impact purchasing goal achievement. The conservative/traditional and fashion-forward sectors' store selections and goods offers may not suit all of their demands. When shopping at mass merchandisers or power centers, for example, customers who are not fashion-conscious may gain more utilitarian advantages. Downtown fashionable businesses and specialist fashion malls may be more appealing to fashion-conscious customers. In a typical regional mall, both bottom and top fashion buyers are less likely to find what they are seeking. Interactive multimedia is one of the major changes in the display of goods. It gives the booth vitality and tells stories about goods and brands to each consumer, allowing consumers to experience the interactive experience. Multimedia integrates entertainment and information into one. It can play a better role in publicity, and at the same time, it can form the interaction between humans and robots, create an interactive operating environment and immersive scenes, and virtual reality technology can give consumers a strong sense of participation and manipulation. For example, the computer can adjust the sound and image presented by the display according to the user's language and body movement effectively and realistically, simulating the user's character characteristics in reality. Understand the connotation of products Use computer vision technology and projection display to create a fantastic and dynamic interactive experience, which can attract consumers of all ages to stop and watch, mobilize the enthusiasm of the audience, and easily gather popularity. Nowadays, new building materials emerge in an endless stream, and new technological products are also changing people's lives. The application of modern technology enables indoor facilities, electrical communications, and new decorative materials to have high technological content. New technologies and new materials greatly enrich the expressiveness and appeal of the interior design environment. It enables the designer's design to have a broader playing field and provides a more difficult material basis for breakthroughs and innovations in artistic images. In the emotional experience design of themed shopping malls, the virtual space has a great degree of freedom, and the path and plot of the visitors from the space intention have possibilities that cannot be realized in the real space. For example, the spatial design of multimedia can convey messages with a certain amount of information, continuity, and memory to consumers. It can be seen that high-tech integration and high-emotional design are fresh fashion trends in the space design of themed shopping malls.

#### 5.3 Limitations

The study was conducted in a regional shopping center and should be replicated in other locations and markets. Larger examples would allow additional constructs to be included. This study also has some limitations in theory and method. Since the samples recruited for this study are female, there may be gender bias in our samples, which may affect the results. Further studies will be carried out in more shopping malls, reinforcing existing results to a degree of gender balance. In future studies, we may introduce other factors. At the same time, more studies should be made on how more consumer groups, including men, will be influenced by the interior design of different styles of shopping malls in their shopping behaviors.

### **5.4 Research Contributions**

The research on the interior space design of shopping malls is a research based on the behavior of commercial shopping interior space, integrating consumer psychology research, consumer behavior research, and other related theories. Therefore, this is conducive to combining commercial space interior design research with other types of research. The intersection and connection of interdisciplinary studies have reached the academic significance of cross-disciplinary advanced and horizontal research. The era of experience economy has arrived. The United States has taken the lead in integrating the design ideas and concepts of "experience place" and "community place" with merchant design, researching new requirements for shopping mall interior space design, and further researching new ones. The influence of environment on consumer psychology and consumer behavior.

### 5.5 Practical Contributions

The design of shopping malls originated in North America and developed vigorously after the Second World War. It promoted the development of new cities and the renewal of old cities and had a profound impact on urban construction and development. Shopping malls are gradually becoming urban entertainment, leisure, and cultural centers. In-depth investigation and research on them have practical significance for expressing urban culture and rich urban life. At the same time, it can also promote the development of other industries such as tourism. In-depth research on the design of shopping malls can enrich the design style and improve the human cohesion and commercial competitiveness of the mall so that the project can not only realize its commercial value but also improve the quality of social public life. At present, the design of most shopping malls in China still lacks features. As more and more shopping malls are built, similarities will inevitably appear in the format, space processing, and image design. This lack of theme format will be very useful in the future. May fall into a crisis of business homogeneity. If the function of a shopping mall is only limited to shopping and consumption, without the support of the theme and creative elements, the project will often become mediocre. As the homogenization competition of the shopping mall intensifies, the complex must have a clear interior

design style. The extension and penetration of the creative elements of the indoor theme can extend the effective stay time of customers. Therefore, when shopping malls carry out commercial positioning, they must not only follow the development law of the commodity market but also add creative theme elements to the mall to increase its attractiveness. Simply paying attention to rapid replication is bound to affect the characteristics and differences of the shopping environment. Only by avoiding cookie-cutter design can it stand out from a large number of traditional shopping malls. The results of this research will provide guidelines for the interior design of shopping malls, and based on the data feedback from consumers, provide suggestions on interior design for shopping mall managers and settled businesses.



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## **APPENDICES**

# Appendix 1: Questionnaire's Cover Page

Thank you very much for filling out this questionnaire. This questionnaire aims to explore the influence of the interior design of shopping malls on the value and behavior of female consumers. To complete this questionnaire, you may need one to five minutes. This questionnaire is part of the personal research of master's students in Thailand. Please read each question carefully and make sure that all answers are your true thoughts. All this information is for academic purposes only.

Part A: The first part: closed answer questions with gender and occupational information.

- 1. Your age is over

  □ < 20
  □ 20-35
  □ 36-50
  □ > 50
- 2. Your income (monthly)

  □Less than 3000 RMB

  □3000-6000 RMB

  □6001-9000 RMB

  □More than 9001 RMB

Part B:Closed-ended answer questions about 3 factors that influence purchase intention, including:

Please write a ' $\sqrt{}$ ' in the box to show you agree or disagree with the following statements 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree.

Variables	1	2	3	4	5
Mall Perception					
I think shopping malls are bright.					
I think shopping malls are colorful.					
I think shopping malls are exciting and lively.					
I think shopping malls are cheerful and interesting.					
I think shopping malls are comfortable and relaxed.					
Product Quality					
I think shopping malls offer the latest styles of products.					
I think shopping malls have a good selection of products.					
I think the products available in shopping malls are high.					
Hedonic value					
Compared with other things I could have done, the time spent shop- ping was truly enjoyable.					
While shopping, I felt a sense of adventure.	V.				
I enjoyed being immersed in exciting new products.	93				
This shopping trip truly felt like an escape.	Y				
This shopping trip was truly a joy.					
Utilitarian value	3				
While shopping, I found just the item(s) I was looking for.	1				
I accomplished just what I wanted to do on this shopping trip.					
I couldn't buy what I really needed.					
Approach behavior					
I like this shopping center					
This shopping center is a place where I would easily speak to					
This is the kind of place where I would spend more money					

# **BIOGRAPHY**

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