

**Impact of Visual Servicescape Aesthetics on Affective &
Cognitive Evaluations, Satisfaction and Behavioral
Intentions; A Study of Premium Hotels in India**

*A Doctoral Dissertation Submitted in Partial Fulfillment of the Requirements for the
Award of the degree of*

**Doctor of Philosophy
In
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DECLARATION

I, Rasheed K, hereby declare that this dissertation entitled “*Impact of Visual Servicescape Aesthetics on Affective & Cognitive Evaluations, Satisfaction and Behavioral Intentions; A Study of Premium Hotels in India*” is a *bonafide* research work completed under the guidance and supervision of Prof. B. Raja Shekhar and is free from plagiarism. I also state that this dissertation is not submitted fully or partially to any university or institution for the fulfilment of any diploma or degree. I also give my consent to upload this dissertation to Shodhganga/Inflibnet.

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ABSTRACT

Servicescape is the totality of the physical ambience where a service takes place. It can be understood as a model which helps to explain the complexity of customer reflection and response in a specific service setting. Aesthetics is the sensual pleasure driven out of stimuli through the senses experiencing a product or service. The critical analysis of service marketing literature reveals that most of studies in servicescape aesthetics domain have been conducted considering single or multiple aesthetic attributes of servicescape based on objective conceptualization. The studies which are based on individualistic or subjective evaluation of servicescape aesthetics and its effect on the subsequent emotional, cognitive and behavioral schema are very scarce and limited. The present study tries to bridge this gap by theoretically proposing one conceptual model based on customers' visual servicescape aesthetics comprehension and appreciation (VSACA) and its outcomes like affective and cognitive evaluations, customer satisfaction and behavioral intentions. A conceptual model was proposed based on the theoretical foundations like model of consumption values, elaborative model of persuasion, Gestalt psychology, stimulus organism response paradigm and environmental psychological models. The proposed conceptual framework was empirically tested using data collected from customers of premium hotels in major metropolitan cities in India. The results of the analysis imply that servicescape developers should focus more on inclusion of visually appealing attractive attributes which will engender plenty of favourable outcomes for the service firm.

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ABBREVIATIONS

AE	Affective Evaluation
AGFI	Adjusted Goodness of Fit Index
AMOS	Analysis of Moment Structure
ANOVA	Analysis of Variance
AVE	Average Variance Extracted
BI	Behavioral Intentions
CB-SEM	Covariance-based Structural Equation Modeling
CE	Cognitive Evaluation
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CLF	Common Latent Factor
CMB	Common Method Bias
CMIN	Chi Square
CR	Composite Reliability
CS	Customer Satisfaction
EFA	Exploratory Factor Analysis
GFI	Goodness of Fit Index
KMO	Kaiser-Meyer-Olkin
LLCI	Lower Limit Confidence Interval
MLE	Maximum Likelihood Estimation
NFI	Normed Fit Index
PCA	Principal Component Analysis
PLS	Partial Least Square
RMSEA	Root Mean Square Error of Approximation
SD	Standard Deviation
SE	Standard Error
SEM	Structural Equation Modeling
SPSS	Statistical Package for Social Sciences
TLI	Tucker-Lewis Index
ULCI	Upper Limit Confidence Interval
VSACA	Visual Servicescape Aesthetics Comprehension and Appreciation

Chapter 1

Introduction

Chapter 1

Introduction

This chapter introduces the foundational concepts of the study like servicescape, aesthetics, and visual servicescape aesthetics. It describes the conceptualization of the focal construct of Visual Servicescape Aesthetics Comprehension and Appreciation and its outcomes like affective and cognitive evaluations, customer satisfaction and behavioral intentions. It also explains the objectives of the current study as well as its significance in the hospitality context.

Servicescape

Human behavior is highly influenced by the factors encompassing the environment he lives in. Empirical studies prove that customer behavior is largely affected by the elements embedded within the environment of service delivery taking insights from theoretical foundations like environmental psychology (Kumar *et al.*, 2013). The customers are continuously interacting with different physical dimensions of the service environment which form the basis of the concept of servicescape literature in service marketing (Lin, 2016).

Servicescape is the totality of physical ambience where a service takes place. The concept of Servicescape was conceptualized and developed in the early 80s by Booms and Bitner (1982) as they defined the Servicescape as the environment where the service provider and customer interact with each other and the tangible and intangible stimuli are assembled to facilitate better communication and performance of the service. This

concept was further modified and conceptualized as an empirical model of relationships between different Servicescape attributes and customer perception by Bitner (1992).

From a business perspective, each Servicescape is uniquely created in a way to create instantaneous impressions in the minds of customers and enhance their service experience which will subsequently lead to different behavioral outcomes (Miles *et al.*, 2012). When a customer enters into a service setting, the holistic environment where all the physical and non-physical stimuli are meticulously assimilated, will create a positive impression about the different attributes of service rendering like brand's personality, brand value and positioning.

Servicescape can be understood as a model which helps to explain the complexity of customer reflection and response in a specific service setting. It emphasizes the importance of physical attributes embedded within a service environment in different forms (Rosenbaum & Massiah, 2011). The earlier model which was developed by Booms and Bitner (1982) can be broadly categorized into three dimensions namely; ambient conditions, space and layout and symbols and artefacts. Ambient conditions in Servicescape perspective refer to the intangible elements reflected in service setting like lighting, music, sound, smell, air quality etc. (Siguaw *et al.*, 2019). Space and layout can be identified as the physical and spatial service setting to facilitate navigation and functionality (Hanks & Line, 2018). The type of furniture used, the equipment arranged in the service environment and physical arrangement of layout are examples of this dimension. The other dimension includes the symbols, signs and artefacts which decor the service environment (Bitner, 2000).

Designing a unique Servicescape is of strategic importance. Servicescape plays a prominent role in service marketing (Wakefield & Blodget, 1994). Servicescape acts as a packaging which helps to convey efficiently and effectively the value of the service brand to customers. Like the package of tangible goods, servicescape acts as the package of the services (Ishaq *et al.*, 1995). Hence, the servicescape acts as an external image of the service rendering. The tangible elements in a service environment are the prime factors which exude favourable impacts in customers.

Servicescape facilitates efficient service delivery (Nguyen *et al.*, 2012). A well designed service facility enhances the experience of customers and makes it a pleasant one. When the physical packaging of the service is poorly designed and equipped, it conveys a negative image and frustrates the customer. For example; when an airport is designed with poor and mediocre facilities, international travellers get dissatisfied with service and get a bad impression about the country to be visited.

Servicescape acts as a socialiser too. It helps to communicate the expected behaviour between service personnel and customers (Kim *et al.*, 2016). The physical evidence embedded in the servicescape helps to make the service discharge more effective. Servicescape facilitates the interactive aspect of service rendering. Servicescape acts as a differentiator in the competition driven service industry. Creating a proper physical facility with robust design and layout helps to create competitive advantage for a service firm. It also enables the firms to adopt price differentiation and premium pricing.

Aesthetics

Aesthetics is the sensual pleasure driven out of stimuli through the senses experiencing a product or service. The word aesthetics has its Greek origin “*aisthetikos*” which means sense of perception (Hayles, 2014). It is believed that the study of aesthetics has been firstly introduced by Plato and later on adopted by western philosophy forming beauty as its central theme (Kumar *et al.*, 2013). Initial studies on aesthetics were mainly based on music and arts, later on different concepts from psychology and sociology were also associated with aesthetics.

The study of aesthetics in the perspective of service marketing is very important as the attractiveness of the product or the physical elements in service environment create lot of favourable outcomes and intentions in customers (Olascoaga, 2003). There is an inherent inclination of the human mind towards which looks attractive and delightful and a natural repulsion from which looks ugly and unattractive. This natural disposition towards aesthetics makes the study of aesthetics decisive in service marketing firms trying to identify the factors which impact the purchasing decision or purchasing behavior (Veryzer, 1995).

Numerous studies have examined the impact of different aesthetic elements on behavioral outcomes of customers. But, bulk of these studies was primarily related with aesthetic dimensions of products or physical goods (Bloch, 2011). The studies which investigated the aesthetic elements in service setting and different outcomes are scarce and limited despite the fact that the service industry is contributing two by third of GDP in

developing countries like United States and more than half of GDP even in emerging economies like India.

While designing a product either physical or experiential, many factors and attributes are considered like efficiency, reliability, appearance, ergonomics and aesthetics etc. Though all these features are important while designing a product, the aesthetic feature like appearance, color, reflectivity, ornamentation and decors gain more importance since these factors are conducive to create positive attention towards the product and differentiate one product from other competing ones (Levy & Czepiel, 1974).

Servicescape Aesthetics

Servicescape aesthetics can be visual and non-visual. It encompasses all the stimuli embedded within a particular service environment including visual elements, olfactory cues, aural factors, tactile ones, and other sensory impressions (Kumar *et al.*, 2013). Visual aesthetic elements include color, shape, pattern, layout, texture, line, scale and movement in a specific service environment. Olfactory aesthetics can be the pleasant and delightful smell and aroma which is prevalent during service delivery (Shiner & Kriskovets, 2007). Human has an inherent and natural disposition towards pleasant smell. This olfactory feeling enriches the customer's service experience during service delivery. Aural stimuli include the auditory attributes of pleasant sensation created by objects like musical instruments, or by human beings like songs etc. (David, 1999). The tactile elements in aesthetics include the hedonic experience of human touch which makes the service delivery more intimate and heart touching (Fiore, 1993).

Though the term servicescape aesthetics covers all the visual and non-visual delightful elements in a specific service setting, the visual element is considered to be having more dominant and long lasting outcomes (Lin, 2016). Visual aesthetics positively influences the customers' way of perception in many ways. In a cumbersome and crowded service environment, it gains recognition and differentiates it from others. Further the physiological studies point out that the inferences incurred from other senses are heavily dependent upon the visual experience.

According to the philosophy of aesthetics postulated by Vacker (1993), the visual aesthetics can be broadly classified into objective evaluation and subjective evaluation. The subjective approach is based on the personalized perceptions and individualistic evaluation of beauty while the objective approach is based on the properties of objects which make it beautiful for everyone.

Aristotle's theory of beauty tries to conceptualize aesthetics in a subjective manner, while Plato's and Kant's philosophy conceptualizes beauty in an objective manner (Kumar *et al.*, 2013). The marketing literature on servicescape aesthetics can be classified into these dual theoretical dimensions of objectivity and subjectivity. The concept of subjectivity is made upon on the notion that perception and enjoyment of beauty depend on the particular individualistic and psychological feeling which may vary from person to person and subject to subject while objectivity is based on the notion that every object has ideal state once attained will look attractive for everyone independent of beholders and environment (Kumar *et al.*, 2013).

The marketing literature on objective evaluation is abundant considering any of the features or elements of objective aesthetics. But the studies related with the subjective conceptualization of servicescape aesthetics are very limited. Based on Kaplan's (1987) information processing model, a comprehensive set of five dimensions is the basis of subjective evaluation of servicescape aesthetics; legibility, mystery, coherence, complexity and novelty (Nair *et al.*, 2022). Legibility refers to the property of the servicescape to distinctly identify itself in terms of clarity of layout and presence of other physical amenities. Legibility of the servicescape facilitates the customer with proper configuration of signals, features and interior outline. Mystery refers to the amount of information which is hidden in the servicescape. The factors that motivate one who enters into a servicescape to move further and find out more about it forms the mystery part of aesthetics (Twum *et al.*, 2022). The level of lightning and spaciousness of the service setting are best examples. Coherence refers to the unity of proper arrangement and physical distribution of the servicescape. The richness of elements present in the environment and the abundance of features increase the complexity of the servicescape. Novelty in the servicescape refers to the unusual and unfamiliar objects which will delight the customer who steps into a specific servicescape. The novelty or visual newness plays a major role in servicescape compared to landscapes. The atypical and novel configuration of elements in the service environment enhances curiosity and inquisitiveness in the minds of customers. These five dimensions form the basis of the subjective evaluation of servicescape aesthetics based on Kaplan's (1987) model.

Visual Servicescape Aesthetics

Kotler's (1974) works are the first among to mention the aesthetic concept in marketing. The early studies regarding aesthetics were primarily concerned with physical goods. These studies mainly considered any particular aesthetic feature of the product like shape, color, form or appearance (Lin, 2016). Marketing literature which dealt with aesthetic aspects of experiential goods or services was comparatively scarce and under investigated. But for the service environments where production and consumption simultaneously occur, the aesthetic features are very important. Hence the visual aesthetic elements in a servicescape are one of the important aspects in service marketing mix.

Understanding the role of visual aesthetics in a servicescape is very important as it provides lots of benefits and advantages for the service provider (Holbrook, 1980). Since the aesthetic element is embedded within a service environment, it engenders favourable outcomes for the service firms allowing them to employ premium and skimming price strategy, enhance loyalty and word of mouth, eliminate information clutter, and reduce expenses.

Customers are exposed to a plethora of products and services everyday through plenty of multi-media channels of advertising and mass communication. This creates information clutter in the minds of customers which will leave them confused about making the right choice and decision making while selecting the products and services (Blijlevens *et al.*, 2008). This compels the customers to make the choice based on the visual stimuli and cues to compare between the available choices and make the right decision.

Conceptualization of Visual Servicescape Aesthetics Comprehension and Appreciation

This study conceptualizes the concept of Visual Servicescape Aesthetics Comprehension and Appreciation (VSACA) extending the Centrality of Visual Product Aesthetics theory developed by Bloch *et al.* (2003). This model is the first among marketing literature to identify the visual aesthetic components and dimensions of products. This study extends this model to include the visual aesthetic dimensions of the service environment and conceptualizes the construct called Visual Servicescape Aesthetics Comprehension and Appreciation.

Visual Servicescape Aesthetics Comprehension and Appreciation (VSACA) is understood as the process of how a customer comprehends, appreciates and determines the visual cues and stimuli in a particular service environment using cognitive and psychological processing (Lazarus, 1991). Comprehension refers to the psychological and mental ability to perceive and understand. In visual servicescape aesthetics perspective, it refers to the ability of the mind to cognitively capture the signals and symbols in a particular service environment (Schmitt & Simonson, 1997). It refers to the interpreting ability of the mind in a given situation through which customers are able to understand the overt as well as the covert information cues and stimuli in the servicescape. The cognitive capacity of customers to understand the situation they encounter forms the basis of comprehension. Appreciation is the acknowledgment of value each object or situation deserves. It refers to the proper recognition of qualities and judging the proper worth. In visual servicescape aesthetics perspective, appreciation

means truly understanding and recognizing the different aesthetic contents and features in the service environment.

Though multiple studies have addressed individual aesthetic elements of physical goods or products like color, shape, appearance, packaging and form etc., studies which examined the process of evaluation of aesthetic visual stimuli through cognitive and psychological processing as well as the subsequent cognitive and behavioral outcomes are very limited (Lin, 2016). This cognitive schema leads to different favourable outcomes like perceived service experience, pleasure and arousal and other benefits like loyalty and willingness to pay more.

The concept of Visual Servicescape Aesthetics Comprehension and Appreciation was developed by Lin (2016) based on the Centrality of Visual Product Aesthetics (CVPA) concept by Bloch *et al.* (2003). This conceptualization was primarily based on the perspectives of visual aesthetic dimensions of physical goods. Lin (2016) modified it to accommodate the experiential goods or services.

While considering the visual aesthetics of products, Bloch *et al.* (2003) developed the concept called Centrality of Visual Product Aesthetics (CVPA) based on four broad dimensions of aesthetics. The first dimension considered is the value a customer experiences from the aesthetic product features to satisfy the personal as well as social well-being (Yalch & Brunel, 1996). The second dimension considered in CVPA is acumen; the cognitive ability to identify the meticulous nuances of the product aesthetics (Osborne, 1986). Third factor of CVPA is the level of responsiveness towards the aesthetics features of the product (Ingarden, 1983). The fourth dimension is the level of

determinacy of the aesthetic elements of the product in decisive behavior of the customer like purchase decision and behavioral intentions.

The value perspective of CVPA construct means that the perceived value of joy and delight from the aesthetic elements of products enhance the quality of personal as well as social well-being (Belk *et al.*, 1989). According to this theory, customers with a high level of CVPA believe that the day to day encounters with beautiful and delightful objects will give them positive and favourable meaning to their lives and will substantiate their feeling of joy. For them, the benefits and rewards they experience from these aesthetic features of the product are so valuable. In marketing literature the concept called “sacred possession” is the possession of highly cherished and dream products. The value dimension of CVPA can be understood as the factor which is helpful to fulfil the desire of this sacred possession. High CVPA value makes the product with high aesthetic value feel sacred and quintessential. Customers with high centrality of aesthetic values perceive that delightful experience processed through the consumption of beautiful products is highly beneficial for self as well as the society as it enhances the holistic experience of consuming the particular product or service.

The second facet of CVPA, acumen is the inherent ability of the customer to comprehend and appreciate the meticulous aesthetic elements in a particular servicescape (Berlyne, 1971). This inherent ability varies from person to person as it varies depending upon the nature of products or the environment it is consumed. Some people are by nature endowed with a high degree of acumen by which they can appreciate the value of aesthetics embedded within a product while others may not be able that much to comprehend the different aspects of meticulous aesthetic content present in a particular

product or service environment. This acumen is basically the totality of artistic sensibility of a person. Different people have diverse sense of artistic aptitude and sense of appreciation. Literature in artistic perspectives argue that most people are unable to truly sense and recognize the aesthetic and artistic elegance of the products and understand the intensity and delight of diverse experiences of services and environments they come across every day through the visual sense.

The recent studies in intelligence and personality domains point out that people are divided into visual, auditory and kinaesthetic (Janakiraman, 2018). People with high visual intelligence, naturally process the information based primarily on the sense of vision (Holbrook, 1986). Others who prefer auditory stimuli process their cognitive activities based on the aural signal. People, who prefer kinaesthetic and tactile domains, prefer physiological gestures and signals to visual images and auditory signals. So the customers who prefer the visual dimension of intelligence and personality to auditory and kinaesthetic signals will be possessing a high level of acumen in aesthetic perspective.

The third dimension of CVPA, the level of responsiveness, is the factor which leads to the impulsive buying behavior in the minds of customers (Ingarden, 1983). The aesthetic features of the products create spontaneous behavioral changes in the decisive purchasing behavior in customers (Veryzer, 1993). The reactions of the customers to the beautiful products can be pragmatic or aesthetic. The aesthetic responses of the customers have more potential as it will lead to immediate and impulsive behavior.

There is ample marketing literature which states that the aesthetic feature of the product stimulates immediate purchase decisions. Possessing a thing of beauty gives the feeling

of sublime enjoyment and a sense of discovery (Rook, 1987). The behavioral process associated with the customer encounter with a product of aesthetic design is understood to be emotional and affective one which will lead to cognitive outcomes. When a customer encounters an object of beauty, he tries to get into the proximity of the object, comes closer to it to get more details of appearance and feature of the product, tries to get the hold of the product and finally tries to get the possession of it.

The fourth dimension of CVPA is the determinacy of the customer towards purchasing decision from the delightful design quality (Bloch *et al.*, 2003). For customers with high CVPA, the design and aesthetic features of the product is understood to be the most influencing factor while making a purchase. For them, the product aesthetics is the key criteria to compare between the different products or brands available and finalize the purchasing decision. Some customers who do not have the high personality trait of centrality of visual aesthetics may not find the aesthetic aspects as important and decisive. For them, other product characteristics which influence the customer decision may be the factors like product price. For them the aesthetic values like superior designs, delightful experience and beautiful appearance of the products will not matter while making a purchasing decision. They will not trade off higher prices or effort to obtain the products of superior design while evaluating a product or comparing between the brand preferences.

Bloch *et al.* (2003) developed a reliable and valid scale to measure this centrality of visual aesthetics. There was no extant scale to measure this CVPA construct though there were many instruments to measure the related concepts like art appreciation and aesthetic appreciation. The tool to measure this CVPA construct was developed using review of

extant literature and in-depth interviews of individuals believed to be possessing the high aptitude for aesthetic features and artistic evaluation. After review of literature and depth interviews, a pool of 80 items scale was initially identified and after the rigorous process of scale development, these items were finalized into a scale containing 11 items.

The scale developed by Bloch *et al.* (2003) to measure the centrality of visual aesthetics of products was adopted by Lin (2016) and modified to Visual Servicescape Aesthetics Comprehension and appreciation. The CVPA measure was primarily focused on the aesthetic features of the physical goods which was modified to include the aesthetic values of experiential environments.

The VSACA construct is proposed to cause different cognitive, emotional, and behavioral outcomes. Lin (2016) formed a conceptual model which primarily included outcomes of VSACA as cognition and emotion. The cognitive and affective evaluation constructs considered in this study are the immediate effects of the VSACA construct. Other than emotion and cognition, VSACA leads to the perceived experiential quality (Lin, 2016).

Perceived experiential quality refers to the customer's abrupt response to the aesthetic content in the particular servicescape (Reimer & Kuehn, 2005). The concept of experiential quality can be defined in terms of hedonics and recognition. Hedonics is the degree of enjoyment and delightful experience one perceives from the design of the servicescape. The design of the servicescape is a prime contributor to service experience. Recognition refers to the degree of congruency between the expected and preconceived notion about the servicescape design and what is received in reality. When a customer

finds the perceived experience from a specific servicescape matching with the expected one, it gives a sense of recognition and achievement.

Affective and Cognitive Evaluations

The present study considers affective and cognitive evaluations as the immediate outcomes of CVPA construct. The aesthetic response to visually aesthetic element includes both cognitive as well as affective judgments (Compton & Hoffman, 2019). Affective evaluation refers to the emotional responses to specific experiences from products or services. It is the application of a customers' emotional feeling while assessing the service or product experience (Russel & Pratt, 1980).

Pleasure and arousal are known to be the most common dimensions of affective response though there are many other forms like circular model of emotion, differential emotions and positive and negative affect. The aesthetic object creates impulsive and spontaneous emotional outcomes like pleasure and arousal in customers (Ittlesn, 1976). Pleasure means a state of sensual gratification through extreme enjoyment. In marketing literature pleasure refers to the hedonic quality of stimuli and cues from the experience of physical goods or services. It is a single dimensional continuum ranging from extreme sorrow to extreme joy.

Arousal refers to the sudden and abrupt feeling of excitement and enthusiasm. Arousal creates a feeling of frantic jump of excitement from dormancy (Nasar, 1994). In marketing literature arousal refers to the sudden physiological as well as psychological rejuvenation and excitement resulting from any environmental stimuli or any other

source. There is a well-established model to describe this emotional model in environmental psychology called the Pleasure-Arousal-Dominance model.

The Pleasure-Arousal-Dominance model is a well-known environmental psychology model conceptualized by Mehrabian and Russel (1973). The model was initially conceptualized as a psychological model to describe the emotional impacts and outcomes generated through environmental cues and stimuli. Later on, this Pleasure-Arousal-Dominance model was further modified to a physiological model by Peter Lang.

The Pleasure-Arousal-Dominance model uses three dimensional scales to measure the emotional impacts of a specific environment (Mehrabian & Russel, 1973). Out of the PAD model, the pleasure dimension is a continuum of extreme displeasure to extreme pleasure. The unwanted and unpleasant emotions like anger and fear are rated in extreme displeasure while pleasant emotions like joy, happiness and satisfaction are rated in extreme pleasure (Bakker *et al.*, 2014). So when a person confronts any environmental cue from any particular object or experience, his emotion can be spotted anywhere in this pleasure-displeasure continuum.

Arousal-Non Arousal continuum is the second dimension of PAD model. This dimension measures how a person is excited and energized from a particular environmental cue (Huang *et al.*, 2017). It measures the intensity and the degree of excitement. A person who is depressed and deeply melancholic will fall in the extreme Non-arousal point while a person who rages with anger will fall in the extreme arousal point though it is an unpleasant emotion (Ittlesn, 1976). A person who is bored with a particular object or

situation will again fall in the extreme non-arousal category while a person who is highly excited and joyous about a particular object or situation will fall into the arousal category.

The third dimension of PAD model is dominance-submissiveness continuum. It refers to how a person feels in control or out of control related to the environmental stimuli or cues (Floyd, 1997). It is the measure of personality traits of how a person is relatively in self-control. For example, though fear and anger are falling under the unpleasant category of the first dimension, anger is coming under dominance while fear is falling under submissiveness.

Cognitive evaluation refers to the conscious intellectual thought process applied in a specific environment. Cognition means the application of reason, intellect and judgment to a particular object, situation or circumstance (Mattila, 1999). Thus it differs from emotional and affective behaviours. Cognitive evaluation involves the psychological analysis of cost benefit discrepancy. It is a judgmental process of whether the actual benefits and outcomes received from a particular product or service conform to the expected ones (Lin, 2016). Theoretically, cognitive evaluation is the conscious appreciation and judgment of the worth of the product, service or an event.

Customer Satisfaction

Customer satisfaction has been known to be the prime driving force of loyalty and behavioral intentions. That is why the conceptualization of customer satisfaction becomes of paramount importance to both marketing researchers as well as practitioners (Vukmir, 2006). Creating a base of satisfied customers is the key to the success for every business organization. Moreover customer satisfaction decides the quality of the product or service

delivered and acts as the backbone of organizational existence of the business firm (Yang & Peterson, 2004).

Measuring and understanding the concept of customer satisfaction is a very crucial and challenging one in service marketing literature. The study of the extant literature on consumer behavior reveals that the term satisfaction is defined differently and conceptualized in multiple contexts (Han, 2013). Though the concept of customer satisfaction is defined in different ways there is a general agreement among the behavioral scientists that satisfaction is an evaluative process based on the cognitive discrepancy between the expectation about the particular product or service and the actual performance or experience of the product or service. A person who consumes a product or experiences a service must have some initial set of standards and expectations about the product or service (Han & Ryu, 2009). Once the product is delivered or the service is rendered, there is an inherent tendency in humans to compare between these initial set standards and the performance of the actual product or the service. Hunt (1997) defined customer satisfaction as the evaluation of the customer that the consumption or service rendering was at least as good as it was expected to be.

Customers who had satisfactory experience from a specific product or service are more inclined to repurchase it and spread positive word of mouth (Henard, 2001). The satisfactory experience derived from the consumption of a product or service creates readiness and willingness in the minds of customers to engage more with the firm. Several studies point out that satisfaction is the key predictor of many behavioral intentions. Customers will be willing to repurchase a particular product or service or recommend it to others if they have already satisfying engagement with the product or

service firm (Oliver, 1997). So, understanding the customer expectations and the parameters set by the customers to enjoy a specific service is very important as the conformance of experienced service to the expected one creates many favourable outcomes to the service firm in the form of positive word of mouth, repurchase intention and positive recommendation.

Customer satisfaction is one of the well-known outcomes of servicescape attributes, especially the aesthetic elements embedded within it (Liljander & Strandvik, 1997). The servicescape should be defined in a way that attracts the customer at the first instance since many customers will be satisfied with the service ambience even if the exact service rendering may not be up to the level of their expectation. Several studies have pointed out that many customers visit the specific servicescape in order to enjoy the aesthetic elements and enjoy other servicescape attributes rather than consuming the specific service rendering. If the servicescape is designed without proper aesthetic elements, the service experience will be very disappointing for such persons. Wakefield and Blodgett (1994) suggested that the perceived quality of the service from the servicescape leads to the customer satisfaction. The more a customer stays in a specific servicescape and enjoys the service is more likely to get a satisfying experience especially in visually delightful service environments.

Behavioral Intentions

Behavioral intentions is the process of appraisal and assessment of customers' attitude towards a specific product or service and evaluation of post purchase intentions comprising the likelihood of repurchase, loyalty and recommendation etc. (Cronin *et al.*,

2000). The study of behavioral intentions is very fundamental for the success of the marketing strategy as the positive behavioral schema decides the basic success of any business firm. Behavioral intention and loyalty intention are used interchangeably in marketing literature due to the two dimensional approach of loyalty which includes both the behavioral and attitudinal aspects (Han, 2013).

Several studies in marketing literature have pointed out the causal relationship between customer satisfaction and behavioral patterns of the customer in diverse product and service environments. These studies state that customer satisfaction drives the intention to revisit and repurchase and prompts the customer to stay loyal to the specific firm and recommend the same for others (Saha & Theingi, 2009).

The visual aesthetic dimensions of servicescape drives the overall cognitive and affective schema of the customer in a service environment. These in turn increase the level of customer satisfaction. Customer satisfaction is the prime predictor of behavioral consequences like loyalty, repurchase intentions and positive word of mouth. Several studies have confirmed that superior design of the servicescape containing visual aesthetic elements cause favourable outcomes in the customers and prevent them from switching to other service providers (Famiyeh *et al.*, 2018).

Overview of Indian Hospitality Industry

The hospitality industry is one of the booming sectors in the Indian economy which accounts for almost 8 per cent of total workforce in the country and around 15 million jobs in the last few years. After the LPG era of the Indian economy, the hospitality sector in the country witnessed tremendous surge owing to the economical affluence of the

middle and upper class of the population. Hospitality industry contributes more than 7 percent of the GDP of the country. The hospitality and tourism sector in India is the seventh largest tourism economy globally. Being a sunrise sector of the economy of the country, the hospitality sector is estimated to reach US \$ 500 billion by 2030.

Though the term hospitality is a broader arena which includes the sectors like hotels, restaurants, tourist destinations, amusement parks and other related fields, the hotel industry is predominant in the hospitality sector. The hotel industry in India is expected to touch the figure of 1200 billion INR by 2023 growing at the rate 13 per cent during 2018-2023. The impressive growth rate of the hotel industry is creating huge investment opportunities in the country attracting great Indian and foreign hotel chains to the Indian hospitality landscape. The hotel and Tourism sector attracted huge foreign direct investments accounting for US \$15.90 billion in 2021. India acquired the third largest position in terms of investment in the travel and tourism sector by attracting US \$ 46 billion in 2019, which is accounting for 5.8 per cent of the total investment in the country that year. The occupancy rate of Indian hotels grew at 65 per cent between FY 2018 and FY 2019.

The current study employs survey based methodology by collecting samples from hotel customers from metropolitan cities in India like Delhi, Mumbai, Chennai, Bengaluru, Kolkata and Kochi. The study empirically proposes one conceptual model based on the subjective evaluation of visual servicescape aesthetics and its subsequent emotional, cognitive and behavioral schema and empirically validates it using the responses from hotel customers from the metropolitan cities.

Statement of the Problem

The extant review of literature in the area of servicescape and aesthetics in service marketing literature has revealed that there are ample studies which considered individual objective servicescape dimensions like color, design, aroma and other value adding attributes to the service environment. But, the research in the area of overall individual comprehension of aesthetic attributes in the servicescape is very limited. The scholarly works which considered the visual dimensions of aesthetics are scarcely located especially in servicescape literature.

The way the current study has conceptualized the visual servicescape aesthetics is also significant. Most of the studies in extant literature has limited to objective conceptualization of aesthetics and servicescape in marketing literature. Very limited studies have considered the individual and subjective dimension in comprehending the aesthetic attributes in the servicescape. The current study follows the subjective approach to conceptualize visual servicescape aesthetics in the hospitality industry in India.

The critical examination of the studies in marketing literature in the area of aesthetics reveal that bulk of these studies have investigated the effect of aesthetic attributes in physical goods rather than experiential goods. Though physical evidence is one of the fundamentals of marketing mix in services, research attempts which considered aesthetics in servicescape are very limited.

The current study contributes to service marketing literature by conceptualizing visual servicescape aesthetics in the hospitality industry and investigating its impact on affective and cognitive evaluations, customer satisfaction and behavioral intentions.

Objective of the Study

The broad objective of the study is to conceptualize Individual's "visual servicescape aesthetics comprehension and appreciation" and its outcomes in the hospitality context. The VSACA construct is theoretically proposed based on the recommendations of Lin (2016). The model proposed by Lin (2016) is developed as an extended advancement of "centrality of visual product aesthetics" proposed by Bloch *et al.* (2003).

The current study tries to conceptualize VSACA construct based on the theoretical foundations like model of consumption values, elaborative model of persuasion, Gestalt psychology, stimulus organism response paradigm and environmental psychological models. The study primarily aims to measure the effect of VSACA of Indian hotel customers on affective and cognitive responses and subsequent behavioral schema.

The study focuses on measuring the effect of VSACA on customers' affective and cognitive evaluations. It also measures the effect of cognition and emotion on subsequent psychological outcomes like customer satisfaction. The study also tries to measure the mediating effect of cognitive and affective evaluations between VSACA and customer satisfaction as well as mediating effect of affective responses on cognitive evaluations. It also measures the effect of customer satisfaction on behavioral intentions in the hospitality industry.

Conclusion

This chapter primarily discussed the foundational concepts like servicescape, aesthetics, and visual servicescape aesthetics and how the focal construct called "Visual Servicescape Aesthetics Comprehension and Appreciation (VSACA)" evolved from

these concepts. It also described important outcomes of VSACA like affective and cognitive evaluations, satisfaction and behavioral intentions. It also discussed the overview of the Indian hospitality industry, statement of the problem and objective of conducting the current research.

Chapter 2

Review of Literature

Chapter 2

Review of Literature

This chapter details the review of the extant literature in the area of servicescape, aesthetics and servicescape aesthetics in chronological order. The review includes the nature of conceptualization of servicescape and aesthetics dimensions regarding the objective and subjective manners, the antecedents and outcomes considered in each study and the findings and conclusions. Though there is a substantial volume of works in service marketing literature regarding servicescape and aesthetics, few pertinent studies are considered for the review in the current study.

Kotler's (1973) works are among the pioneering attempts in service marketing literature to introduce the dimensions of aesthetics and its effect on subsequent customer's behavioral schema. Kotler (1973) proposed a conceptual model which identified the effect of service environmental dimensions and subtle atmospheric stimuli like the visual cues, auditory attributes and tangible elements on the emotional, cognitive and behavioral consequences.

Holbrook (1980) conceptually identified few dimensions of aesthetics of physical goods and its impact on emotional and judgemental consequences. The study theoretically proposed few physical attributes of products like physical features, functional values and product applications. The study proposed few outcomes of these dimensions like the post purchase emotional responses, re-patronage decision making and attitudinal behavior.

Belizi (1983) identified the aesthetic importance of color in facility driven service environments like malls, retail stores and other built environments. The study adopted an experimental design where the impact of different color combinations on customer perceptions was measured and analyzed. The study empirically proved that the color of the service environment has significant effect on purchase orientation, positive perception and other behavioral outcomes.

Unlike the earlier studies, Holbrook (1986) subjectively conceptualized the aesthetic dimensions in the perspective of physical goods. The study introduced the personality attributes in comprehending the aesthetic elements by proposing the effect of individualistic influence in perception of aesthetics on customer's approach orientation. The study stated that the personal characteristics of individuals like the motivational level, self-confidence and creativity have significant impact in forming the behavioral and attitudinal responses in product perspective.

Like the majority of the servicescape studies, Baker (1986) also conceptualized the dimensions of the service environment in objective way. The study identified the servicescape factors like beauty of physical facility, attractiveness of design, ambience of service delivery and the engaging behavior of the service staff. The study proposed that these factors affect the post consumption behaviours like re-approach and re-patronage intentions.

Walsh *et al.* (1988) argued that attributes like attractive design and delightful appearance of the product significantly contribute to a firm's financial competence in the market. The

study proposes that by enhancing the design attributes a firm can improve the competitive advantage in the market which will lead to economic success of the firm.

Bellizi and Hite (1992) conducted an experimental study by varying the color combinations in the service environment. The study adopted a simulative method to vary the different colours in the servicescape and found that certain colours had more impact on customer's behavioral responses than other colours. The study concluded that the colour combination of red and blue in the service environment are more conducive to generate favourable customer responses to the service firm.

Bitner's (1992) work is first among the studies which coined or introduced the concept of servicescape. It is one of the pioneering studies which conceptually developed the environmental attributes of service i.e. servicescape. Though many previous studies have examined the individual or combined effect of aesthetic elements in servicescape, this study made major contributions to the service marketing literature by conceptualizing the concept called servicescape and measuring the effects of servicescape attributes like physical layout, service ambience and artistic objects on customer's behavioral responses.

Wakefield and Blodget (1994) empirically proved the relationship between the experiential quality derived from the specific service environment on customers' emotional responses like pleasure and behavioral responses like loyalty and repurchase intentions. Though this study considered the servicescape attributes like perceived experiential quality in the servicescape, the aesthetic dimensions are neglected in the conceptualization.

Veryzer (1995) conceptualized the aesthetic dimensions of products in a subjective manner. The study framed a conceptual model based on the design attributes in the service environment. The study thoroughly evaluated the previous studies on product aesthetics and presented an overview of the previous studies raising some critical observations and discussions.

Garber's (1995) study is based on subjective conceptualization which empirically proved the effect of individual perception and exotic feeling about the product characteristics. The study examined the relationship of subjective understanding about the novelty of product features like appearance, packaging and design and customers' responses towards this subjective feeling.

Wakefield and Blodgett (1996) extended the previous findings to include the aesthetic dimension of leisure service environments. The study considered the factors in the leisure service environments like physical amenities, proper display boards for communication, hygiene of the ambience and functional arrangement of the layout. The study empirically proved the impact of these servicescape factors on customer satisfaction, behavioral and attitudinal intentions.

Dahl and Gorn (1999) developed a theoretical model which was based on objective conceptualization. The study stated that the aesthetic elements like product appearance and attractive design play a major role in shaping the customer responses. The study argues that the visual imagery presented to customer in terms of delightful appearance and beautiful design decides the customer evaluation process.

Wagner (2000) examined the effect of sensory attributes in the servicescape. The study argued that the visual, olfactory and tactile elements embedded within the servicescape have significant impact on emotional and cognitive responses. The study objectively identified the sensory attributes in the service environment which enhance the aesthetic values driven out of it.

Yoshimura and Yanagi (2001) identified the dimensions of product aesthetics from a manufacture's point of view. The study identified factors like attractive design, visual appeal of packaging and other product features like value for money as the key elements which will influence the post purchase intentions of customers. The study emphasized the need of considering aesthetic features also while developing the product rather than relying only on conventional characteristics like functional value.

Hightower *et al.* (2002) explored the dimensions of aesthetics in sports service environments. The study conceptually proposed and empirically tested the impact of robust servicescape design with aesthetic elements as well as the effect of functionality aspects of sports servicescape with low waiting time for the customers on different behavioral and emotional outcomes. The study is similar to Bitner's (1992) conceptualization of servicescape which considered the aesthetic attributes as a single dimension of the specific servicescape.

Cox's (2002) study is one of the few studies which conceptualized aesthetics in a subjective manner. The study identified that subjective understanding of the complexity and mystery in the product features play a crucial role in forming the positive attitudinal responses towards it. The study empirically proved that the recurring encounters with

complex and mysterious products will prompt the customers to form favourable behavioral attitudes towards the specific product.

Bloch *et al.* (2003) conceptualized the dimensions of visual aesthetics of products and developed a scale called “Centrality of Visual Product Aesthetics”. The study measured the effect of visual attributes of aesthetics like the visual appeal, exemplary design and other product related attributes and empirically tested its relationship with emotional and attitudinal responses of the customers. This is one of the pioneering studies to develop a robust measurement framework for the aesthetic dimensions of the products.

Hekkert *et al.* (2003) also adopted a subjective evaluation method to define the aesthetic features. The study identified that the coherence and exotic visual appeal of the product characteristics are the factors which affect the choice selection and alternative avoidance. The study argued that the individual perception of the customers regarding the novelty and coherence of the product features significantly affect the purchase intention of the customers.

Rajpoot (2008) objectively identified the factors that affect customer intentions of inbuilt service facilities like malls. The study identifies the factors like service staff engagement and cooperation, functional setting and visual imagery on customers’ intentions like choice preference and re-patronage. The study was based on the objectivity approach of defining servicescape and identifying few factors of aesthetics.

Blijlevens *et al.* (2008) also made theoretical contributions to the aesthetic literature by identifying the key factors which influence the customers’ purchase decision. The study identified the features like visual enjoyment, novel features and sophistication as the

aesthetic dimensions while developing the product. This study also followed a subjective approach in defining the aesthetic dimensions.

Townsend's (2010) works are one of the pioneering attempts to identify the aesthetic dimensions in the financial service environment. The study identified that factors like visual imageries, attractive design and pleasant colours of the financial products and financial documents significantly influence the competitive advantage and profitability of the firm. This study also followed the objective approach to conceptualize the aesthetic dimensions in financial service products.

Ryu *et al.* (2010) also conceptualized the servicescape dimensions of the restaurant industry in an objective manner. The study identified the factors like design, visual appeal, and image of the servicescape as the key factors in dining setting. The study empirically tested the relationship of these factors with post consumption behavior of the customers like attitudinal and re-patronage intentions.

Bloch (2011) evaluated the previous studies which conceptualized the servicescape studies in an objective way. The study was a critical analysis of the studies which considered the aesthetic dimension of design factor in servicescape literature. The study comprehensively mapped the extant literature on servicescape design and raised some serious questions on the theoretical and practical implications of the servicescape design.

Walsh *et al.* (2011) considered the sensory dimensions of the servicescape. The study proposed that the sensory attributes of the servicescape like the aural and olfactory dimensions like the pleasant fragrance prevalent in the environment and subtle background music are highly influential in predicting the emotional and behavioral

responses of the customer. This study also identified the servicescape dimensions in an objective way.

Lin and Liang (2011) explored the servicescape dimensions in the retail fashion industry. The study identified service engagement factors along with the physical factors of the servicescape. The study proposed and empirically tested the causal effect of service ambience, facilitation factors and engagement of the service staff in service delivery on emotional and behavioral responses of the customer in retail service setting.

Kim and Mattila (2011) explored the servicescape dimensions in the hospitality industry. The study adopted a field intercept method where the customers were interviewed within the ambience of the hospitality servicescape regarding the factors which influence the customers. The study identified thirty three factors affecting the customers. Unlike previous studies, this study adopted qualitative assessment method to identify the servicescape dimensions.

Demoulin (2011) explained the effect of the aural dimension of the servicescape. The study found that the auditory dimensions of the servicescape like delightful melodies and pleasant background scores will enhance the engaging behavior of the customer. The study stated that the positive engagement with service delivery will lead to favourable outcomes like revisit and re-patronage intentions.

Lee and Hwang's (2011) work is among the few studies which conceptualized servicescape in a subjective manner. The study identified that exquisite dining experience and servicescape aesthetic dimensions are very critical in determining the post-consumption customer behaviours in luxurious dining service environments. The study

argued that providing exquisite dining experience is more influential than value for money comparisons in luxurious dining service environments.

Lin and Worthley's (2012) works are also among few studies which conceptualized the servicescape dimensions in a subjective way. The study proposed that individual differences in understanding the aesthetic dimensions influence the emotional and cognitive responses of the customer. This study also considered the importance of personality dimensions in predicting the customer responses in the service environment.

Siu *et al.* (2012) adopted Gestalt school of psychology to conceptualize the servicescape dimensions. The study identified the servicescape factors like attractive design, ease of accessibility and visual appeal as the factors which are most influential in a specific servicescape. The study empirically proved the effect of these factors on customer responses. The study is based on objective conceptualization.

Wardono *et al.* (2012) objectively conceptualized the servicescape aesthetic attributes. The study proposed and empirically proved the effect of subtle and nuanced elements considered while designing the servicescape like the visual detailing, color congruence and visual imagery on factors like service engagement behavior. The study detailed how customers can be influenced by incorporating minute changes in the servicescape design which will enhance the customer engagement.

Heung and Gu (2012) also followed objective conceptualization to identify the factors affecting the servicescape in the fine dining segment. The study proposed the effect of environmental factors in dining service setting and engaging behavior of the staff on re-

patronage intentions and positive recommendation. The study also empirically proved this relationship using the responses from restaurant customers.

Elliot's (2013) work followed the subjective conceptualization and is one of the pioneering attempts to identify the ethnic, cultural and social elements in the servicescape. The study argued that when the customer is able to comprehend the subtle ethnic and cultural elements embedded within the service environment by a feeling of social alignment, it will lead to customers' delight and excitement. The study subjectively identified how customers comprehend the ethnic and socio-cultural nuances in the service environment and how it will lead to favourable outcomes.

Arrifin *et al.* (2013) also adopted objective conceptualization for identifying the factors affecting the servicescape in the hospitality industry. The study proposed that staff behavior is the key factor which determines the customer responses. The study empirically proved how service engagement and interactive service rendering from the staff will lead to positive responses like loyalty and positive recommendation.

Hyun and Kang (2014) proposed the effect of various aesthetic stimuli in the servicescape on customers' affective responses. The study empirically proved that aesthetic attributes in the servicescape will enhance the pleasure and arousal in customers. Durna *et al.* (2015) extended the previous findings by including revisit, word of mouth and recommendation in the model.

Lin's (2016) work is one of the pioneering attempts to conceptualize the construct called "visual servicescape aesthetics comprehension and appreciation". The study subjectively conceptualized dimensions of visual servicescape aesthetics based on the "centrality of

visual product aesthetics” developed by Bloch *et al.* (2003). The study empirically tested the relationship of VSACA construct on the outcomes like pleasure, arousal, perceived experience and readiness to pay premium price.

Kumar *et al.* (2017) also developed one conceptual model based on visual servicescape aesthetics in a subjective manner. The study empirically tested its relationship with outcomes like emotion and customer preference. The empirical analysis was done using experimental method by exposing different servicescapes to participants and measuring the responses of each.

Kirillova and Chan (2018) conceptualized e-servicescape aesthetics of travel websites. The study objectively conceptualized how customers are able to appreciate the aesthetic dimensions in booking websites and how it affects their approach/avoidance behavior. The study was conducted using experimental design where high and low aesthetic websites were presented before participants and the responses were recorded.

Shortt and Warren (2019) conducted a qualitative research regarding the impact of visual pattern of photographs. The study identified the construct called “grounded visual pattern analysis (GVPA)” to measure the aesthetic impact of still images. The study adopted ethnographic method of qualitative research design for the study.

Kampani and Jhamb (2020) identified the servicescape dimensions of salons using a mixed approach combining qualitative and quantitative research designs. The study objectively identified the dimensions like ambience, artefacts, service facility etc. as servicescape dimensions. The study combined the methods like focus group interviews and exploratory methods to conduct the study.

Nair *et al.* (2022) conceptualized the dimensions of visual servicescape aesthetics as formative items in subjective form. The study employed an experimental design to derive the formative indicators of the service environment. The study identified the dimensions like “complexity, coherence, legibility, mystery and novelty” as formative dimensions of the servicescape.

The details of the important works in servicescape, aesthetics and visual servicescape aesthetics are discussed in the table below (Table 2.1)

Table 2.1

Author	Type of the Study	Antecedents and Outcomes	Findings/Remarks
Kotler (1974)	Objective Conceptualization	Effect of atmospheric stimuli like visual, auditory and tangible elements on emotional and behavioral outcomes	This is one of the earliest studies in service marketing literature to conceptualize the relationship between atmospheric stimuli present in the servicescape on different affective and behavioural outcomes
Holbrook (1980)	Objective Conceptualization	Effect of aesthetic dimensions of product on cognitive and affective states	This study described the importance of aesthetic dimension of products including the semantic and syntactic aspect of aesthetics.

Belizi (1983)	Objective Conceptualization	Impact of physical environmental attribute of colour on customer delight, purchase orientation and product preference.	This study empirically tested the physical attribute of colour in the service environment on behavioural outcomes in the customer. The study is limited to the effect of a single environmental attribute of colour.
Holbrook (1986)	Subjective conceptualization	Effect of individualistic perception of nuances of attributes in the servicescape on customer behavior	This is one of the pioneering studies in service marketing literature to conceptualize the personality elements in understanding the service environment. This study stated that individualistic differences in evaluating the servicescape greatly influence the customer behavior.
Baker (1986)	Objective conceptualization	Impact of servicescape factors like beautiful design, physical layout and attractive ambience on customer preference	This study also identified the servicescape attributes in an objective way. It extended earlier studies by comprehensively covering the physical attributes which influence customer preference.

Walsh <i>et al.</i> (1988)	Objective Conceptualization	Impact of the product attributes like product appearance and design on firm's profitability	This study describes that designing the product in an attractive manner will enhance the firm's competence in the market. The features like beautiful design and delightful appearance decide the firm's success
Belize and Hite (1992)	Objective conceptualization	Impact of color combinations in servicescape environment on customer's emotional responses	This study conducted an experimental simulation by varying servicescape appearance in varying colour combinations of red and blue and examined its effect on customer's emotional responses.
Bitner (1992)	Objective conceptualization	Causal effect of physical factors in the service environment like ambience, artistic objects and other aesthetic dimensions on emotional and cognitive judgements of customer	This study is also one of the pioneering attempts to conceptualize the servicescape construct. This work empirically tested the relationship of servicescape elements in the servicescape on emotional and cognitive outcomes.

Eckman and Wagner (1994)	Objective conceptualization	Impact of personality traits and individualistic characteristics on customer's choice preference	This study is based on the Gestalt psychological model which conceptualized the visual elements and customer characteristics based on objectivity of aesthetics.
Wakefield and Blodget (1994)	Objective conceptualization	Effect of experiential quality from the servicescape on customer's pleasure, loyalty and repurchase intentions	This paper examines the relationship of customer's perceived experiential quality of the servicescape with post purchase intentions. Though this study addresses the particular empirical relationship, the aesthetic elements in the servicescape are hardly addressed.
Eckman and Wagner (1994)	Subjective conceptualization	Nil	This paper comprehensively examined the literature in service marketing based on the subjective approach. It conceptualized the aesthetic attributes of fashionable products and developed future research frameworks in this area.

Veryzer (1995)	Subjective conceptualization	Nil	This study developed a conceptual model based on the subjective understanding of aesthetic attributes. The study considered the appearance of the product and presented an overview of the literature in the specific area.
Garber (1995)	Subjective conceptualization	Impact of visual aesthetic dimensions of product like exotic newness of the product on customer's choice preference	The study discussed the aesthetic factors which affect the customer's attention while making the purchase. The paper considered the attractiveness of product packaging, form and appearance as the visual aesthetic attributes.
Wakefield (1996)	Objective conceptualization	Effect of physical attributes like signs, symbols, ambience hygiene and objects of beauty on customer preference, revisit and recommendation	This study is an advancement of the author's earlier work. The study states that physical factors play a crucial role in predicting the customer's behavioural responses in different service environments.

Dahl and Gorn (1999)	Objective conceptualization	Effect of visual aesthetics of product appearance and product design on customer evaluation	This study developed a theoretical model to measure the effect of visual appeal of product appearance on customer's behavioural evaluation process and empirically proved the same. The study emphasized the effect of visual appeal on the customer's cognitive evaluation process.
Wagner (2000)	Objective conceptualization	Effect of visual, auditory and olfactory elements on customers' emotional and behavioural reactions.	This study conceptualized a theoretical model based on the sensory attributes in the servicescape and its outcomes. The study identified few sensory attributes as the predictor of customer behavior.
Yoshimura and Yanagi (2001)	Objective conceptualization	Effect of environmental beauty attributes on patronage, choice and preference	This study objectively conceptualized the servicescape environmental attributes and empirically tested its causal relationship with behavioural responses of the customer.
Hightower <i>et al.</i> (2002)	Objective conceptualization	Effect of robustness of service environment design with aesthetic elements on emotional and re-	This paper objectively considered the aesthetic concept as one-dimensional construct and empirically proved the its effect on various emotional and

		patronage intentions	behavioural responses
Cox (2002)	Subjective conceptualization	Effect of recurring interface of customers with servicescape embedded with mysterious aesthetic dimensions on preference choice	Unlike most of the studies which conceptualized individual servicescape feature in an objective way, this study approaches servicescape in a subjective way. The paper forms a holistic view of servicescape which comprises mysterious elements. The study tries to prove that the recurring visits to mysterious servicescape will enhance the customer preference towards it.
Bloch <i>et al.</i> (2003)	Objective conceptualization	Impact of visual aesthetic dimensions of product appearance on customer's emotional, judicious and behavioural schema.	This paper developed a conceptual framework to identify the aesthetic attributes of product appearance. The study developed the model called centrality of visual product aesthetics. The Visual Servicescape Aesthetics Comprehension and Appreciation construct is developed based on this model.

Hekkert (2003)	Subjective conceptualization	Effect of servicescape coherence and exotic visual experience of the service environment on customer behavior	This study is also among few studies which adopted a subjective conceptualization approach. It empirically proved that the subtle elements in the servicescape will enhance the coherence and visual appeal of the environment and will cause many favourable outcomes for the service firm.
Rajpoot (2008)	Objective conceptualization	Effect of staff cooperation, physical layout, ease of facilitation and visual appeal on choice preference and re-patronage intentions	The paper identified few physical factors which greatly influence the customer behavior in retail service setting. The study is also based on an objective approach which enumerated few physical factors which contribute to servicescape dimensions.
Blijlevens <i>et al.</i> (2009)	Theoretical modelling	NA	This paper contributed by giving a theoretical foundation for the aesthetics in product development by identifying the factors like visual enjoyment, novel features and sophistication as the most influential components.

Townsend (2010)	Objective conceptualization	Effect of physical attributes like attractive imageries, beautiful design and visual appeal of the product on firm's competitive advantage and profitability	The study identified few manifestations of visual aesthetics in an objective way. This is one of pioneering studies in service marketing literature which conceptualized the effect of aesthetic elements in the context of financial products and services.
Ryu <i>et al.</i> (2010)	Objective conceptualization	Effect of service environment factors like design, servicescape appearance and visual appeal on customer response, re-patronage intentions.	This paper identified few physical factors embedded within the service environment like perceived quality of design, dining experience and visual appeal in an objective manner. The study empirically tested the relationship of these factors with customers' post consumption responses in the restaurant industry.
Bloch (2011)	Analytical study	NA	The paper analyses the extant literature on the design factor. The paper comprehensively maps the studies in the service marketing area regarding the design aesthetics. The paper critically evaluates the studies which identified the design elements in an objective way.

Walsh <i>et al.</i> (2011)	Objective conceptualization	Impact of aural and olfactory dimensions in the service environment like musical chores and pleasant smell on customer behavior and recommendation	The study identified that sensory appeals of aural and olfactory dimensions are highly influential in predicting behavioural and intentional patterns of customers. The study empirically proved the relationship in the dining industry.
Lin and Liang (2011)	Objective conceptualization	Impact of service ambience, facilitation factors and service engagement of staff on emotional and behavioral responses of the customer	The study considered the physical factors in the service environment along with service engagement dimensions in determining the emotional responses. The study empirically proved the relationship in the retail fashion industry.
Kim and Mattila (2011)	Qualitative assessment	NA	The study adopted a field intercept method to assess the factors which influence the customers in the hospitality context. The participants identified thirty three factors which determine the customer responses in the hospitality industry.

Demoulin (2011)	Objective conceptualization	Effect of auditory dimensions in the servicescape on behavioral intention.	The paper identified that the subtle auditory factors in the servicescape like delightful melodies and songs will enhance the customer engagement. This positive association with service firms enhances the chances of revisit and re-patronage intentions. The relationship was empirically proved in the restaurant setting.
Lee and Hwang (2011)	Subjective conceptualization	NA	This paper identified few factors which affect customer behavior in luxurious dining service environments. The study proved that exquisite servicescape aesthetic dimensions are more influential in luxurious dining than value for money comparisons.

Lin and Worthley (2012)	Subjective conceptualization	Effect of individual differences in comprehending the servicescape dimensions on emotional and cognitive responses.	This paper is among few studies which conceptualized the servicescape in a subjective way. The paper proved that personality dimensions play a crucial role in defining the cognitive and affective responses of the customer. This study stated that the personal choices regarding color combinations in the servicescape are also very important.
Siu <i>et al.</i> (2012)	Objective conceptualization	Impact of service environmental factors like design, accessibility and visual appearance on customer responses.	The paper conceptualized the servicescape characteristics in general and proved empirically the relationship between servicescape factors and post consumption customer responses. The study is based on Gestalt psychology of objectivity.
Wardono <i>et al.</i> (2012)	Objective conceptualization	Impact of subtle elements in the servicescape like color congruence on service engagement behavior.	The study empirically proved the effect of subtle nuances of servicescape design on customer responses. It proved that visual detailing involving pleasant color combinations and beautiful design enhanced the customer engagement behavior.

Heung and Gu (2012)	Objective conceptualization	Effect of dining environmental elements and staff behavior on customer responses and re-patronage intentions	The paper empirically proved that the environmental factors in the dining service setting and staff behavior highly influence the post consumption behavior. Customers are more likely to express re-patronage behavior and spread positive recommendation.
Elliot (2013)	Subjective conceptualization	Effect of customer comprehension of socio-cultural elements embedded within the servicescape on customer delight	The study subjectively conceptualized how the customer comprehends and appreciates the ethnic attributes of servicescape by which customers can associate the feeling of social alignment. The subtle design of the servicescape filled with ethnic elements will enhance the subjective appreciation of servicescape.
Arrifin <i>et al.</i> (2013)	Objective conceptualization	Effect of service engagement and interactive staff behavior on customer responses	The paper identified that engaging and interactive behavior of service staff are the key predictors of customer responses especially in the hospitality context.

Hyun and Kang (2014)	Objective conceptualization	Effect of various aesthetic stimuli embedded within the servicescape on customer's affective responses	The study empirically proved the causal relationship between servicescape stimuli on affective responses like pleasure and arousal.
Duma <i>et al.</i> (2015)	Objective conceptualization	Effect of servicescape attributes on re-patronage and positive recommendation	The study empirically tested the causal relationship between servicescape elements and various customers' post consumption behavioral schema including revisit, spreading positive word of mouth and recommendation.
Lin (2016)	Subjective conceptualization	Effect of individual customers' VSACA on pleasure, arousal and behavioral intentions.	The study is one of the pioneering attempts to identify the visual aesthetic dimensions in the service environment. The study theoretically conceptualized one model and empirically tested it in the hospitality industry.
Kumar <i>et al.</i> (2017)	Subjective conceptualization	NA	This study subjectively conceptualized the dimensions like mystery, coherence etc. as visual servicescape aesthetics dimensions.

Kampani and Jhamb (2020)	Exploratory study	NA	The study identified the servicescape dimensions like ambience, artefacts and service facility etc.
Nair <i>et al.</i> (2022)	Subjective conceptualization	NA	The study subjectively conceptualized the visual aesthetic dimensions of the service environment like “mystery, coherence, legibility, complexity and novelty”.

Research Gap

The extant literature has mainly focused on the impact of specific attributes of servicescape on customer emotion and behavioral intentions. Little is known about how customers individually comprehend and appreciate the visual aesthetic cues related to a specific servicescape and how this appreciation and comprehension affect their subsequent aesthetic responses (Nair *et al.*, 2022).

Studies about the impact of VSACA on an individual’s psychological and cognitive responses are very limited in the context of experiential products. Despite abundant studies about servicescape, research about how customers individually evaluate the aesthetics embedded in the servicescape is still scarce (Lin, 2016).

It is quite evident that among the very limited studies in marketing literature about the aesthetics, studies about the physical good (products) predominate (Kumar *et al.*, 2013). Most of the studies that examined the effect of servicescape aesthetics are limited to few specific attributes or elements of the service environment. Thus, in the extant literature, there is hardly any study about the role of the customer in deciding their own aesthetic responses (Kumar *et al.*, 2017).

In servicescape literature, studies about aesthetics and its impact on customer intentions are still under-appreciated and only few significant studies could be found which uses subjective conceptualization to evaluate servicescape aesthetic cues (Nair *et al.*, 2022).

Conclusion

This chapter briefly reviewed few important studies related to servicescape, aesthetics, and visual servicescape aesthetics in chronological order. The review considered the nature of the study regarding the subjective and objective conceptualizations, antecedents and outcomes considered and important findings. It also described the research gaps identified based on the review of literature.

Chapter 3

Theoretical Foundations and Hypothesis Development

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Theoretical Foundations and Hypothesis Development

This chapter details about the theories and models considered to develop and conceptualize visual servicescape aesthetics construct. The VSACA construct is based upon the foundations of theories like consumption values, cue utilization, elaborative model of persuasion, Gestalt psychological model, field theory, stimulus response organism paradigm and environmental psychological models. It also describes the development of hypotheses of direct and indirect relationships of the constructs.

Theory of Consumption Values

Theory of consumption values proposed by McGuire (1999) explained how and why a consumer makes decisions regarding whether to purchase a specific product or not, how a consumer prefers a specific product over another and how the consumer chooses one brand over another. This theory explains how the value adding elements in a specific servicescape affect the decision making process of the consumer. According to this theory, if a servicescape is designed with elements which will attract the customers and will render them a delightful experience, it will lead to the success of marketing strategies of that service firm (McGuire, 1999). This theory helps to understand how the various value dimensions are embedded in Visual Servicescape Aesthetics Comprehension and Appreciation (VSACA) construct and how these value dimensions are conducive to appreciate the aesthetic elements embedded in a specific servicescape.

The theory of consumption values identifies five sets of values which influence the decision making behaviour of the consumer (Sheth & Gross, 1991). These values are namely; functional value, emotional value, social value, conditional value and epistemic value. Any purchasing decision or preference by the customer will be depending on any of or all these five consumption values. These value dimensions contribute to the purchasing decision behavior of the customer in different ways depending upon the specific context. For example, a customer may buy gold as an investment option which is a functional value or he may buy it to get a sense of financial security which is an emotional value. Social, epistemic and conditional value aspects might be negligible in this purchasing decision. The same customer may buy gold as ornaments and jewellery in order to get admiration from others which act as a social value and other four value dimensions become negligible in this context.

The functional value is the perceived capability of a product or service to perform the basic utility (Sheth & Gross, 1991). According to this, a specific product or service acquires the functional value by possessing important utility based performance attributes. Traditional economic theories like economic utility theory postulated by Marshall (1890) and Stigler (1950) state that the functional value is the primary driving force of a customer while making purchasing decisions. This concept is commonly understood as the “rational economic man”. According to this theory a customer prefers utilitarian attributes like durability, price and performance while making a choice. For example when a customer buys a motor car, the first priority will be the features like increased fuel efficiency and low maintenance cost.

Social value is defined as the perceived association of a particular product or service with a positively or negatively stereotyped social image (Suki, 2016). The demographic, economic and cultural impressions about the social class and status affect the purchasing decision of a customer. For instance, while making choices regarding products of high visibility like fashion goods, clothing and jewellery or the goods or services which are meant to be shared with each other like gifts and entertainments, customers are more influenced by social values rather than functional values. Many times, social value is given more priority over functional values due to the status and class element attached with it. For example a particular brand of automobile might be chosen by the customer due to the social element it gives over other brands which give more functional features.

The emotional value is the affective bonding which is derived from the consumption of specific products or services (Lin & Huang, 2012). Few products and services are capable of arousing certain feelings and emotions. For instance, a candle light dinner is conducive for arousing the romantic feeling in those who consume it, as well as horror movies frighten the viewers and arouse fear. Customers generally prefer those choices which give more perpetuating emotional values. Several customers form a kind of emotional bonding with specific products or services. For example many people form a special kind of bonding with the vehicle they use, the houses they dwell. Several studies have pointed out that customer choices can be influenced by non-cognitive elements.

The conditional value is defined as the perceived utility of a product or service based on the situational importance or some set of circumstances which force the customer to make such a choice (Sheth & Gross, 1991). In many circumstances, the physical or social contingencies enhance the value driven out of a particular product or service which

prompts the customer to prefer these contingency based values over functional, social and emotional values. For instance, many choices made by the customer have situational and seasonal importance like the Christmas cards. Some choices acquire utility only once in a lifetime like a wedding gown, and some acquire utility in emergency situations like ambulance service while some choices acquire utility based on the subtle conditional and situational associations like consuming popcorn at movie theatres.

The epistemic value is defined as the inherent ability of an alternative to enhance the curiosity of the customer, arouse the feeling of novelty and give new experience of delight and joy (Wang *et al.*, 2013). A customer acquires epistemic value when he prefers novelty and curiosity over other value dimensions. Many times, customers get fed up with the monotonous products and services and will thirst for something new which will satisfy the quest for novel and curious experiences. Customers have an inherent aptitude to try curios and novel objects and experience unknown cultures and have a tendency to learn new things.

The theory of consumption values explains how the aesthetic elements embedded within a servicescape enhance the values driven out of a service environment (Phau *et al.*, 2014). The aesthetic design, especially the visual manifestation of the service environment enhances the epistemic, emotional and social values which a customer acquires from the servicescape. In many circumstances, the functional value is overlooked and the customer acquires utility from the epistemic and emotional satisfaction driven by the visual aesthetic contents.

Cue Utilization Theory

The theory of cue utilization (Olson & Jacoby, 1972) explains how the visual dimensions of servicescape aesthetics engender diverse cognitive and emotional responses. The cue utilization model postulates that, from a theoretical perspective, every product is encompassed with an array of cues like the color, brand image, price and packaging etc. It explains that the acumen helps to identify the subtle aesthetic elements incorporated in a servicescape design. Based on this principle, Holbrook (1986) states that some customers prefer visual cues to analyse a specific servicescape over verbal cues. Those who depend on visual processing mostly rely on the aesthetic cues present in the service environment. This theory tries to establish that when different servicescapes are overwhelmed with abundant information which creates confusion in the minds of customers regarding the final choice, the visual aesthetic cues play an important role regarding the final choice of the customer.

Cue utilization theory is helpful to understand complex information processing while making the final choices in products and services (Wang *et al.*, 2016). It explains the complicated process of cognitive processing of the mind to make inferences about the specific product or service based on the available cues and stimuli in the product or service environment. It is believed that this type of complex information system is more associated with complex products rather than simple ones. Since service rendering involves the complex process of designing and delivering the targeted utility, the cue utilization theory is well applied here as the customer is engulfed with a wide range of cues and stimuli which is embedded within a specific servicescape (Bloch *et al.*, 2003).

The cognitive and emotional outcomes related with specific service rendering are purely based on the information processing of the cues present in the servicescape. The study conducted by Olson and Jacoby (1972) revealed that, sometimes intrinsic cues like the physical features made more influence in the buying behavior of the customers as well as the choice preference, while extrinsic cues like price, packaging and color etc. influenced the customer in other circumstances.

The relationship between servicescape aesthetics and various emotional and cognitive outcomes can be explained by the application of cue utilization model in servicescape contexts (Lin, 2016). Nowadays, customers are exposed to plenty of information when intended to make service purchasing decisions in online as well as offline contexts. This creates clutter of information and ambiguity in the minds of customers which prompts them to rely on visual cues to finalize the decision making process. The visual elements especially the aesthetic dimensions like beautiful design, artefacts and other delightful features of the servicescape give a positive impression about the service environment and the customer will be conditioned to incline towards such aesthetic servicescape (Easterbrook, 1959). The impulsive buying behavior which is based on the instantaneous emotional impulses can be attributed as the effect of this cue utilization. This impulsive buying behavior is most common in today's world due to the surge of digital marketing mediums which disseminate a plethora of information regarding specific servicescape.

Elaboration Likelihood Model

The Elaboration Likelihood Model (ELM) of persuasion postulated by Cacioppo and Petty (1980) is a well-known theory in social psychology. It is a dual processing

psychological model of attitudinal change which explains how an individual understands, organizes and categorizes persuasive communications in a given context. The Elaboration Likelihood Model analyzed the complex psychological process which is involved in causing the attitudinal change in an individual at varying degrees due to the function of elaboration (Petty & Brinol, 2011).

The study about attitudes and attitudinal change is one of the indispensable and important aspects of contemporary social psychology. Considerable research in these domains was performed from the early 1930s. However, Cacioppo and Petty (1980) noticed that the extant studies were not enough to explain the complex psychological process of attitudinal change and persuasion. They proposed a model called Elaboration Likelihood Model (ELM) in which they classified the people into two categories based on the motivational methods they adopt when confronted by persuasive communications. They stated that based on the motivation and the time invested to process the persuasive communications; people adopt either the central route of persuasion or the peripheral route of persuasion (Kitchen *et al.*, 2014). According to this theory, there is a lower and higher level continuum of elaboration where low elaboration is characterized by classic conditioning and mere exposure while higher level elaboration is characterized by high thought, cognitive response and expectancy-value comparison.

The central route of persuasion means application of one's reason and intellect in processing the information while persuaded by others (Petty & Cacioppo, 1986). In the central route, a customer is motivated towards a particular attitude based on the cognitive and rational thinking which he applies in that particular situation. In this persuasive

model, the customer shows careful consideration and thoughtful analysis of the merits of information while evaluating an argument or advocacy.

For example, when a person considers buying a car he will be confronted with many recommendations from his friends and will come across multiple advertisements regarding different brands and models of the car options (Petty & Cacioppo, 1986). If the person is using the central route of persuasion, he will carefully evaluate the recommendations using rational thinking and cognitive processing through which he will prefer the models of car which gives more security, affordable pricing, increased fuel efficiency and low maintenance etc. Here, a high level of elaboration is applied to weigh and compare different features of the buying option and a complicated cognitive reasoning method is used to come into a conclusion and finalize the option recommended (O'Keefe, 2016).

On the other hand, the peripheral route of persuasion means relying on the positive or negative cues and stimuli or depending on the source of the message rather than applying one's reason and intellect in a specific situation (Sher & Lee, 2009). The cues relied on or the choice advocated can be illogical or against the reasoning since the peripheral route being on the lower continuum of elaboration. According to social psychology, this peripheral route is used by an individual when he is least interested in the subject of concern, there is not enough time to evaluate rationally or the individual does not possess the cognitive capability to evaluate the subject. In these situations, an individual will rely on the peripheral attractiveness, the credibility of the information source, mental posture and mood or the positive and negative stimuli of persuasive communication.

In personality studies, there is a concept called heuristics which denotes the mental shortcuts. Since human beings are cognitive misers in general, they rely on these heuristics when they are least interested in processing the information or they lack the cognitive ability to do so. This Elaboration Likelihood Model is similar to another socio-psychological theory called heuristics systematic model which identifies two models called heuristic route and systematic route (Todorov & Chaiken, 2002). The systematic route is similar to the central route and the heuristic route is similar to the peripheral route. In the car buying example, the peripheral route of persuasion refers to when a person buys the car for color, status symbol, sex appeal or for the celebrity recommendation in advertising. The peripheral route of persuasion is instantaneous and short lasting compared to the central route of persuasion.

The Elaboration Likelihood Model (ELM) can be applied in the context of service environments as many customers will not apply the careful and judicious thought in evaluating the service performance and they will rely on the convenient cues available in the servicescape (Lin, 2016). Being cognitive misers and users of peripheral routes of persuasion, they are prone to rely on the aesthetic elements embedded within the servicescape, especially the visual dimensions of aesthetics (Caferata & Tybout, 1989). In many circumstances, customers will not be able to evaluate the diverse options propagated through advertising while deciding a final choice of alternatives. In these situations, they tend to depend on instantaneous and influential cues available in brochures and other advertising platforms.

Theory of Gestalt or Holistic Perception

The theory of Gestalt or the concept of Holistic Perception refers to the psychological process of looking at or seeing objects, humans or human behavior as a whole and not as the amalgamation of fragmented parts (Bitner, 1992). Gestalt is a word of German origin which refers to “put together”. Gestalt psychology states that by nature human beings tend to analyse the objects as a complex system rather than simply focusing on the components. The fundamental principle which underlies Gestalt psychology is the concept called Holism which means whole is more than or greater than individual parts (Smith, 1988). This theory explains that the meanings and insights derived from looking and evaluating the objects or behavioral patterns as a whole are not deductible by analysing the sub components. This theory proposes that, by nature, the human brain tends to find out some pattern, structure and order from the objects it comes across and it tries to figure out some orderly and symmetric form from unknown objects (Lin, 2004).

There are some foundational principles which explain the theory of Gestalt. These are Figure-ground, proximity, similarity, continuity, closure and common region (Wagemans *et al.*, 2012). The first principle is Figure-ground which refers to the property of the human mind to identify and evaluate objects based on the simple form or organization which the mind is familiar with. The next principle of Gestalt perception is Proximity which refers to the tendency of the human brain to view and evaluate the objects which are near to each other as a group and whole. Proximity is the tendency to view the individual components which are near to each other as an integrated superordinate group. Another principle of Gestalt theory is similarity, which is the tendency of the brain to group similar objects based on the characteristics like shape, color and orientation. By

nature the brain is inclined to view and understand the similar objects in terms of color, shape, size and texture etc. as an integrated whole.

Continuity refers to the tendency of the brain to view and understand the objects which are aligned on a continuous curve or line as related to each other and the objects which are out of this alignment as separate objects (Todorvic, 2008). The closure principle refers to the tendency of the brain to perceive the closed objects as a group and perceive the objects which are not closed as separate objects. The principle of common region refers to the tendency of the brain to understand the objects which are located in a common bounded region as belonging to the same group and the objects which are lying outside the bounded region as separate ones. All these principles emphasize the same tendency of the human brain to find out a symmetric and logical pattern which is already known to the brain and to perceive and understand it in a holistic manner.

The theory of Gestalt explains how customers comprehend and evaluate a specific servicescape (Lin, 2016). According to the Gestalt psychological model, the customers evaluate the servicescape in a holistic perspective without giving much importance to the individual and specific dimensions of the servicescape. Lin (2016) argues that customers evaluate the service environments and determine the behavioral responses in holistic way especially in the hospitality industry.

Field Theory

Field theory is a socio-psychological theory postulated by Lewin (1936) which examines the complex interactive pattern of human behavior with the existing environment. This

theory is an advancement over the Gestalt psychology which states that human behavior involves the interaction of individual and environmental context.

According to field theory, human behavior is defined as a function of living space (Lewin, 1939). The living space is understood to be the combination of individual and the co-existing environment. As per this psychological model, individual behavior cannot be understood without manifestation of individual interaction with the coexisting environment (Burnes & Cooke, 2013). This complex life space can be better understood by an example. If two people are communicating with each other about a particular experience, that becomes one, which will not happen if they are not conversing with each other even though they are staying together. The environment refers to the objective situation in which an individual comprehends and perceives the objects. It encompasses the subjective and objective dimensions of the specific situation with which an individual confronts. It involves the conscious as well as the unconscious environmental aspects to figure out an individual's life space.

The field theory explains how customer responses are affected by the environmental factors especially in the service environment (Lin, 2016). Since the customer behavior is the outcome of the interaction with the life space, the aesthetic elements in the service environment greatly influence the behavioral outcomes of the customer. Customer satisfaction and the subsequent behavioral schema of customers in a specific servicescape are hugely affected by the environmental factors, especially the visual aesthetic elements embedded within that servicescape.

Stimulus-Organism-Response (SOR) Paradigm

Stimulus Organism Response Paradigm is one of the important socio-psychological theories. It is an advancement as well as critique of the Stimulus Response (SR) model known as Classical Conditioning (Akpan, 2020). The classical conditioning model was discovered by famous Russian social scientist Ivan Pavlov. Conditioning is the association of one experience with another experience which is already known. Psychologists state that most of the human behavior complexity can be explained by this classical conditioning model.

According to the Classical Conditioning model, a specific stimulus leads to or triggers a specific response (McSweeney & Bierley, 1984). There are few basic technical terms and concepts related to this classical conditioning model namely; unconditioned stimulus, neutral stimulus, conditioned stimulus, unconditioned response and conditioned response. Unconditioned stimulus is an object or situation which triggers or leads to a particular automatic response. For instance, the shivering felt by the cold breeze. Here, the cold breeze is an unconditioned stimulus which triggers an automatic response of shivering.

A neutral stimulus is a stimulus which does not necessarily trigger a specific response. For instance, the sound of a fan does not necessarily trigger the feeling of shiver unless the fan causes a breeze. Here, the sound of the fan is a neutral stimulus as it leads to no involuntary response. A conditioned stimulus is one which was a neutral stimulus once which did not trigger any specific response, now became a stimulus which triggers a specific response. For instance, for a person who is not bitten by a dog, the sight of the dog is a neutral stimulus. After being bitten by a dog, the sight of the dog will be a

conditioned stimulus which triggers the feeling of fear. The unconditioned response is the involuntary response to a specific unconditioned stimulus. For instance, the smell of delicious food will trigger mouth-watering. Here, mouth-watering is an unconditioned response. A conditioned response is a response to a specific stimulus where there was no such response. In the dog biting instance, the fear at the sight of the dog after being bitten by the dog once is an example of a conditioned response.

The stimulus-Response (SR) model is based on Pavlov's dog experiment (Kimmel, 1966). For an experiment, he uses an unconditioned stimulus of giving food for the dog which triggers the unconditioned response of salivating in the dog. Later on, Pavlov associated one conditioned stimulus of ringing a bell while giving food. A bell rang every time just before putting the food in front of the dog. This created an association of bell, food and salivating. The dog felt that every time the bell rang, food would be given. This led to a situation where a ringing bell causes salivation in the dog even when the food was not given where a conditional stimulus of ringing bell led to the conditional responses of salivation. According to this conditioning model, if an association is created between a particular stimulus and a particular response, every time the stimulus is repeated, it will lead to the specific conditioned response.

The stimulus-Response (SR) is applicable to humans as well since humans are not much different from dogs in this stimulus response. For instance, a student may feel unhappy with a particular teacher who teaches tougher areas like mathematics. Later on the student will develop a negative attitude of apathy toward the subject of mathematics itself. Such students will have this kind of discomfort feeling towards mathematics even after they are grown up.

The stimulus-Organism-Response (SOR) model is an advancement of the SR model which considers the concept of organism also in the model (Jacoby, 2002). This model states that organisms that are human beings are prone to develop particular conditioned responses based on the conditioned stimulus depending on the state of mind. For instance, a child who likes to play video games might play it whenever he wants. Whenever the mother sees the child playing video games she becomes angry at him. The child associates this response from the mother as a feedback for playing it in front of her. Now the child will develop the behavior of avoiding playing video games when mother is present even if he likes it due to this mental state.

The stimulus-Organism-Response (SOR) model explains how the stimuli present in the specific servicescape leads to corresponding conditioned responses of behavioral intentions (Lin, 2016). Many customers develop favourable responses at the sight of beautiful and delightful objects in the servicescape. The visual aesthetic dimensions of the servicescape cause satisfactory experience to the customers which will engender conditioned positive responses in them (Robert & John, 1982). The causal relationship between VSACA construct and its behavioral outcomes can be explained by this psychological model.

Environmental Psychology

Theories of environmental psychology basically deal with the causal relationship of different environmental attributes on behavioral patterns of individuals (Tai, 1997). Though many studies are available in marketing literature which conceptualizes visual aesthetics in a holistic manner, studies which examine the relationship of visual

servicescape aesthetics with behavioral outcomes are really very scarce (Lin, 2016). Theories in environmental psychology are instrumental in conceptualizing the concept of visual servicescape aesthetics in subjective as well as holistic manner.

In environmental psychology models, a debate exists regarding the objective and subjective conceptualization. Most of the marketing studies have examined the servicescape attributes in an objective manner considering the effect of any particular attribute like color, design, layout, ambience etc. (Kumar *et al.*, 2013). Though subjective conceptualization is also there, studies considering the conceptualization of visual aesthetics especially in service environments are limited and scarce.

The extant literature in environmental psychology comprises mainly four paradigms which discuss the conceptualization of aesthetics. These paradigms are namely; psycho-physical paradigm, expert paradigm, cognitive paradigm and experiential paradigm (Kumar *et al.*, 2013). The psycho-physical paradigm refers to the idea that aesthetic value is dependent on the objective properties of the environmental stimulus irrespective of the perceivers. The units considered in this paradigm are environmental factors and attributes. Expert paradigm refers to the principle that individuals assess the particular environment based on subjective and emotional evaluative methods. Cognitive paradigm is based on the principle that human beings assess the aesthetic value of environments based on a judicious thinking process and disconfirmation model of expected and observed outcome. Experiential paradigm discusses the idea that individuals acquire aesthetic value through experiential engagement with the environment.

Out of these four paradigms, expert, cognitive and experiential paradigms include the subjective conceptualization of aesthetic stimuli in the environment. Several theories and models are discussed in the literature related to this domain. Many famous theoretical models and frameworks are developed based on this subjective conceptualization of environmental stimuli like Kaplan's (1987) and Berlyne's (1972) aesthetic models based on information processing theory. Out of these theoretical frameworks, Berlyne's (1972) model is most influential in explaining visual preference of individuals in different landscapes based on information processing theory. Information processing theory is one of the important theories based on environmental psychology. This theory is based on the concept that individuals use cognitive judgmental process to evaluate the specific information depending on the environmental stimuli.

Most of these theoretical models and frameworks are empirically tested and validated in landscape studies. These models are yet to be tested in service environments where customers are overwhelmed with plenty of environmental stimuli (Stamps, 2004). In any service environment, customers are confronted with a plethora of information from diverse sources of dissemination. In this situation, customers have to rely on thoughtful and judicious cognitive processes to evaluate all this information. This is the base of information processing theory.

Environmental psychological theories are helpful to conceptualize the visual aesthetics construct in the subjective manner. Since most of the studies related to servicescape are conceptualized in an objective manner, the studies which examined the effect of servicescape in subjective conceptualization are limited and scarce (Kumar *et al.*, 2013). The theoretical models in environmental psychology, especially the information

processing model is helpful to explain the conceptualization of visual servicescape aesthetics especially in built service environments (Scott, 1993). These models put forth diverse environmental stimuli in service environments and corresponding behavioral responses in individuals.

Hypothesis Development

Visual Servicescape Aesthetics Comprehension and Appreciation (VSACA) and Affective Evaluation

Looking at delightful and attractive objects of beauty enhances the emotional well-being and gives a sense of enjoyment (Compton & Hoffman, 2019). Though this feeling can be momentary sensual impulses, it produces an abrupt enthusiasm and excitement in the minds of customers. The artistic elements and other aesthetic components in the service environment will furnish the stimuli for favourable emotional responses and behavioral intentions (Lin, 2010). These emotional responses activate complex evaluative judgmental processes involving cognitive reasoning.

Ittlesn (1976) stated that the affective responses are the immediate outcomes of environmental stimuli. The aesthetic stimuli embedded in the servicescape instantly cause some emotional impulses which act on cognitive judgments and behavioral responses (Nasar, 1994). Hence, affective judgments are instantaneous in nature and act independently on cognitive aspects.

Pleasure and arousal are the explicit dimensions of affective evaluation though there are other manifestations of affective response like circular model of emotion, positive and negative affect and differential emotions (Russel & Pratt, 1980). Pleasure is defined as

the sensual gratification and enjoyment. It is the hedonic quality of stimuli and cues experienced from products or services. It is a single continuum ranging from extreme sorrow to extreme joy. Arousal is the abrupt feeling of excitement from a drowsy feeling of numbness (Mehrabian & Russel, 1973).

The visual aesthetic components in the servicescape cause the affective dimension through arousing customer's feeling of novelty of the visual experience, complexity of service environment, and intensity of the visual aesthetic stimuli from the servicescape (Lin, 2016). The affective evaluation comprises the intensity of emotional enjoyment from experiencing a variety of visual dimensions in the servicescape. Hence, the following hypothesis is proposed;

H1; Individual's VSACA has significant direct effect on Affective Evaluation.

Visual Servicescape Aesthetics Comprehension and Appreciation (VSACA) and Cognitive Evaluation

The visual aesthetic elements embedded within specific servicescape influence the cognitive evaluation process in the minds of customers (Lin, 2016). Cognitive evaluation is considered to be the immediate response to the customers' participation in visual service aesthetics comprehension and appreciation in the specific service delivery. Several studies in marketing literature confirm that customer's positive decision making and favourable behavioral responses are highly related with delightful service environmental design and beautiful objects in the servicescape (Mattila, 1999). There is a general agreement among marketing researchers that the environmental stimuli embedded in a service delivery induce a diverse set of behavioral responses.

Designing the physical setting of a service delivery environment in a way that gives the customers who confront it a comfortable and pleasant feeling by incorporating attractive and beautiful elements in it, is key to the success of any service firm in the cut throat competition market (Ryu & Jang, 2007). The perceptual experience quality perceived by the customer which is understood as the immediate response of participation in visual aesthetics comprehension and appreciation construct is found to be one of the important dimensions of cognitive evaluation (Chen & Chen, 2010). The perceptual experiential quality mainly includes two dimensions; hedonics and recognition. Hedonics refers to how much a customer enjoys the aesthetic design of the service environment and how much value a customer gets from the design. Recognition explains how a customer associates the expected service environment with actual experience received (Otto & Ritchie, 1996).

The visual aesthetic response of a specific service environment is considered to be a complicated interface which includes the cognitive and affective judgements (Stamps, 2004). A number of studies in marketing literature have examined the relationship of individual aesthetic elements and corresponding cognitive and emotional responses in different service contexts. In this study the overall customer engagement with the visual aesthetic dimensions is conceptualized as a single construct based on sufficient theoretical support. Hence the following hypothesis is proposed

H2; Individual's VSACA has significant direct effect on Cognitive Evaluation.

Affective Evaluation and Cognitive Evaluation

The study of extant literature on affective and cognitive evaluation reveals that there is deep rooted controversy among social-psychologists regarding the causal relationship between cognition and affect (Oatley *et al.*, 2011). Several studies state that cognitive judgments are the effect of emotional states. There is sufficient literature for the contrary argument also which argues that cognition causes affective responses.

The emotional responses to the aesthetic stimuli of a service environment are abrupt and instantaneous. These responses independently occur before cognition and cause cognitive judgements (Nasar, 1994). Affective responses include cognition also. The cognitive judgements of a person depend on the affective state he possesses. The affective states of a person can change the decision making process and the cognitive thinking process.

There is abundant literature in behavioral studies which proves that emotional states determine the cognitive ones (Radford, 2007). Socio-psychologists argue that the mood experienced by a person while meeting others highly influences the judgements made in that particular situation (Clore *et al.*, 1994). Judgements about other persons or other objects made in a positive mood significantly differ from the judgements made in negative mood. For instance, visiting new objects, new places and new environments in a delighted temperament and positive state of mind will give a satisfactory image about those places and environments contradictory to the impression received while visiting those in a negative state of mind.

The affective state of mind like positive mood has been discussed as the most influencing factor while making judgments as a positive state of mind makes positive appraisal

compared to negative states (Kehner *et al.*, 1993). The positive state of mind is a good predictor of well-being. In an experiment conducted by Schwarz and Clore (1983), participants were asked to rate their well-being on sunny days as well as rainy days. The result of the experiment was shocking. Most of the participants rated high well-being on sunny days compared to rainy days.

Strack (1993) stated that the judgments made during smiling significantly differed from the judgments made during frowning. Another experiment by Stepper and Strack (1993) revealed that the judgmental process is influenced by physiological posture also. The result of the experiment showed that the decisions made by the participants in upright positions were mostly positive ones and decisions made by those in slumped position were mostly negative ones.

Social psychologists explain the causal effect of affective responses on cognitive evaluation in different ways. They mainly attribute this relationship as the effect of one psychological phenomenon called *affects heuristic* (Slovic *et al.*, 2002). *Affect heuristic* is defined as the behavioral tendency of individuals to rely on the automatically occurring environmental cues in order to arrive at a judgemental conclusion about a particular object, person or idea. For instance, many customers decide the final choice of products based on the attractive packaging of the product.

Researchers argue that the possible explanation for this powerful influence of affect heuristic is due to the psychological phenomenon called *attribute substitution* (Kahneman & Frederick, 2004). Attribute substitution is defined as the tendency of the individual to rely on the comparatively easier heuristic attribute instead of depending upon the

complex cognitive and judgmental process. Individuals replace these easier shortcut heuristics without being conscious that they have made such a replacement. For instance, the employers mostly rely on the likeability of the candidate while recruiting for a particular job instead of depending on the comprehensive evaluative process of finding the eligibility. Here, the employer is substituting the comparatively easier heuristic for the complex evaluative process (Rivera, 2012).

Although some studies have pointed out the causal effect of cognitive responses on affective evaluation based on some psychological models and theories like misattribution of arousal), framing effects, self-regulation and self-efficacy, the majority of the psychological studies emphasize the causal effect of affective states on cognitive responses (Schachter, 1962). These studies consider affective evaluation as an independently occurring exogenous construct which leads to cognitive evaluation. Hence, this study proposes the following hypothesis;

H3; Affective Evaluation has significant direct and positive effect on Cognitive Evaluation.

Affective Evaluation, Cognitive Evaluation and Customer Satisfaction

Han and Hyun (2012) stated that cognitive evaluation and affective evaluation are the prime predictors and contributors of customer satisfaction. The dimensions of cognition and affect impact the level of customer satisfaction (Oliver, 1997). Cognition has been mostly discussed in extant literature as the model of disconfirmation; comparing the expected experience with actual experience. This disconfirmation model is the most influential factor in customer satisfaction. Oliver (1997) observes that affective

evaluation also coexists with cognitive evaluation in causing customer satisfaction. Szymanski and Henard (2001) argue that disconfirmation model of cognition and affective states are prime predictors of satisfaction.

The affective states like joy, delight, sorrow and hate experienced by customer while consuming the product or service are most influential in determining the follow up decisions of customers like loyalty and recommendation (Westbrook, 1987). The studies that examine cognitive and affective factors simultaneously influence the satisfaction levels of customers are limited. A few studies found that affective states are the predictors of satisfaction levels of customers in hedonic products while cognitive factors predict the customer satisfaction in functional products.

Liljander and Strandvik (1997) argue that customer satisfaction cannot be explained without attributing the effect of affective responses of the customer from a specific service environment. Dube and Rioux (1990) states that emotional responses influence the level of customer satisfaction more than the cognitive factors do. Dube and Rioux (1990) suggested that the affective states highly predict the customers' satisfaction in service environments compared to physical products.

Emotion and cognition have been avidly discussed in psychological studies in the 1970s and 1980s. Emotion has been identified as a key factor which influences the evaluative schema of individuals. Bitner (1992) acknowledges that affect plays a crucial role in determining the customer satisfaction in service environments since the environmental attributes are highly influential in service delivery compared to physical products. Since the service is highly intangible in nature, customers won't be able to directly appreciate

the worth of it. In these situations customers are likely to rely on other environmental attributes like aesthetic dimensions to evaluate the service. The pleasure, arousal and other affective dimensions are highly influential in determining the customer satisfaction levels in service environments.

Customer satisfaction has been understood as the effect of cognitive judgment (Oliver, 1991). Several studies in behavioral psychology state that satisfaction can be defined as the function of disconfirmation model in the service environment. Customer satisfaction is understood to be the manifestation of a behavioral paradigm in the customer based on the degree of expectation and the actual perceived experience. This disconfirmation model is the crux of cognitive evaluation in the service environment perspective.

Sirgy (1984) has developed a model called social cognition satisfaction model which examined how cognitive assessment determined the satisfaction level. This model is based on the concept that the nuances of difference between ideal, expected and perceived outcome of a product or service determines the customer satisfaction. The discrepancy between the perceived performance after consumption and expected performance before consumption determines the satisfaction level. The model was proposed based on three cognitive congruity-incongruity aspects. The first aspect is the discrepancy between experienced consumption value and expected consumption value before consumption. The second aspect of the model is the discrepancy between perceived performance after consumption and the performance of similar products or services in the past experience. The third aspect is the discrepancy between perceived value after the consumption and expected ideal performance.

Hence, this study hypothesizes that cognitive evaluation and affective evaluation positively influence the level of customer satisfaction;

H4; Affective Evaluation has significant direct and positive effect on Customer Satisfaction.

H5; Cognitive Evaluation has significant direct and positive effect on Customer Satisfaction.

Customer Satisfaction and Behavioral Intention

The extant literature in behavioral studies proves that customer satisfaction leads to different behavioral outcomes (Lin, 2016). The behavioral intentions include the propensity of the customer for repurchase, positive word of mouth, loyalty and recommendation. Customer satisfaction decides the quantum of purchase and allegiance towards specific product or service (Cronin *et al.*, 2000). A satisfied customer is very unlikely to disseminate a bad impression about the product or service as well as look for alternative options.

Loyalty and behavioral intentions are interchangeably used in service marketing literature (Han, 2013). Loyalty is defined as the repeated magnitude of purchase and revisit towards a specific business firm whenever the requirement recurs. Perceived value of the service provided, cognitive and affective dimensions and customer satisfaction are the important causal predictors of loyalty.

Customer satisfaction has been known to be the key predictor of loyalty and positive recommendation (Saha & Theingi, 2009). Attitudinal loyalty in terms of continuous

relationship with the service provider can be associated with service provider. Customer satisfaction is positively associated with economic benefits also, since satisfied customers are the base of profitability scaling of the service firm.

Customer satisfaction has been the locus of interest in service marketing for researchers as well as practitioners since it engenders multiple favourable outcomes for the service firm (Yang & Peterson, 2004). Several studies have empirically proved the causal relationship between customer satisfaction and behavioral outcomes like loyalty, recommendation and repurchase intentions. These studies have proved that happy customers are more likely to engage with the service firm and keep recurring relationships.

Zaithamal *et al.* (1996) stated that customers' readiness for positively engaging with the service firm is purely dependent on the service firm's capability to deliver upto the expectation level of the customers. Saha and Theingi (2009) postulated that in the hospitality service context, a firm's competence in exceeding the expectation is the prime factor of the success since customer satisfaction is highly associated with positive behavioral outcomes.

Attitudinal loyalty and positive word of mouth are the results of a service firm's capability to deliver benefits to the customer at par or above the customer expectation (Famiyeh *et al.*, 2018). There is sufficient literature in service marketing which proves that customer satisfaction leads to positive behavioral outcomes which cause profitability and other benefits to the service firm.

This study considers customer satisfaction as the key predictor of behavioral intentions in service environments. This causal factor gains more importance in the environments where design and other aesthetic elements play a crucial role like the hospitality industry. Hence this study hypothesizes that;

H6; Customer satisfaction has significant positive effect on Behavioral intentions.

Mediating Effects of Affect and Cognition

Affective states potentially act as the mediator between servicescape attributes and subsequent behavioral schema of customers (Hooper *et al.*, 2013). The dynamics of emotions has the potential to impact the way of response and behavior. Emotion can alter the way of response to service environmental stimuli. The confirmation-disconfirmation paradigm which constitutes the dimensions of cognitive evaluation greatly influences the causal relationship between servicescape environmental attributes and its behavioral consequences like customer satisfaction and behavioral patterns (Lin, 2016).

In the hospitality industry, cognitive and affective assessments have substantial impact since the servicescape attributes play a major role in determining the behavioral outcomes of the customers (Han, 2013). The immediate responses to aesthetic stimuli of the servicescape are known to be emotion and cognition. These cognitive and affective responses in turn cause many behavioral outcomes in customers.

Pleasure and arousal are the affective dimensions of affective evaluation which will better explain the causal effect of visual servicescape aesthetics on satisfaction and other behavioral outcomes (Russel & Pratt, 1980). The attractive dimensions of the service environment cause emotional excitement and delight in the minds of customers. The level

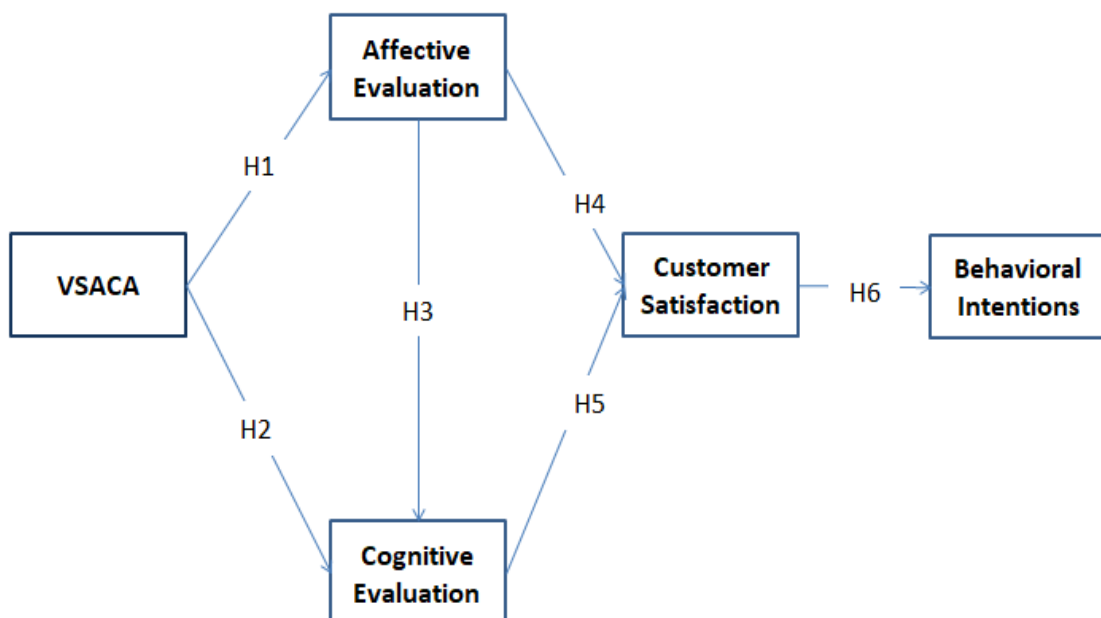
of arousal and pleasure in customers determines the magnitude of preference of the service environment.

This study conceptualizes affective and cognitive evaluation as potential mediators between VSACA construct and customer satisfaction. The causal relationship between visual aesthetics dimensions and customer satisfaction is mediated by cognition and affect in the hospitality context. Hence, the following hypotheses are proposed;

H7; Affective Evaluation mediates the relationship between VSACA and Customer Satisfaction

H7; Cognitive Evaluation mediates the relationship between VSACA and Customer Satisfaction

Proposed Conceptual Model



Conclusion

This chapter discussed the theoretical backgrounds considered for the current study like consumption values, cue utilization, elaborative model of persuasion, Gestalt psychological model, field theory, stimulus response organism paradigm and environmental psychological models. It also outlined the direct and indirect hypothesized relationships considered for the study and the conceptual framework proposed for the current study.

Chapter 4

Research Methodology

Chapter 4

Research Methodology

This chapter details the methods and procedures adopted for the current research. It describes in detail the research design adopted for the study, sampling and sampling design, data collection procedure and different tools and techniques of data analysis. It details the justification for the research design adopted, sampling technique, sample size, and data analysis tools. The measurement of constructs used in this study and validation of those measurements are also described in detail.

Research Typology

Social science research can be broadly classified into quantitative and qualitative research approaches (Zawawi, 2007). The fundamental difference between two methods is the underlying phenomenon of deduction or induction. Quantitative research is predominantly characterized by deductive method of reasoning while qualitative research predominantly adopts inductive method of reasoning. Quantitative research is based on the positivist philosophical approach while qualitative research follows the philosophical approach of interpretivism.

Quantitative study primarily adopts research designs based on social experimentation and survey methods while qualitative research operates methods like case studies, grounded theory, ethnographic studies, focus groups and content analysis (Azungah, 2018). The analysis procedure in quantitative methods is independent of the respondents who participated in the study while the qualitative method is characterized by playing a participative and active engagement with ideas, objects and participants.

Quantitative research employs deductive-hypothetical approaches. Bryman (2012) defined deductive approach as the scientific enquiry process to get deeper insights about an already known research area. The deduction approach involves forming hypothetical relationships between known constructs based on the theoretical grounding. The constructs considered in the study are operationalized by either adopting the pre-validated scales or developing the newer scales. Then, data is collected from survey respondents and the hypothesized relationships are empirically tested. The findings are presented to get academic and practical implications.

Balaikie and Priest (2019) presented an overview of the process followed in deductive research. The process consists of ordered steps followed in social science research which adopt a deductive approach.

- To identify the research problem based on thorough analysis of extant literature on the specific research area.
- Hypothesized relationships are proposed between the constructs based on theoretical grounding.
- The constructs are operationalized by forming or adopting scales to measure the constructs
- The proposed hypothesis are empirically tested collecting data in experimental or survey design
- Deductions are drawn based on the result of analysis by proving or disproving the theoretical prepositions
- Contribution to the existing body of knowledge is discussed and further dimensions of research area are proposed.

Based on the time period of data collection, research is classified into cross sectional and longitudinal research (Rindfleish *et al.*, 2008). In the cross sectional method, the respondents are surveyed and all the responses are recorded and collected in a single go without any revisit or repetition. In longitudinal research, responses are obtained by multiple approaches from same respondents. Most of the empirical research conducted in social science employs cross-sectional approach to analyse the data due to feasibility and other constraints.

The survey based research can be again broadly classified to exploratory, descriptive and causal research (Sreejesh *et al.*, 2014). Exploratory research is conducted when there is no prior understanding about the concept, idea or area that is going to be studied. This research is employed when a new fundamental research question is addressed by the researcher and the specific question is not clearly defined or analysed in the extant literature. Since there is no prior exposure in the extant literature about the specific research domain, the exploratory research will be highly unstructured compared to descriptive and causal models. Since, there is no prior explanation about hypothesized relationships or empirical validation, exploratory design is predominantly qualitative in nature. Exploratory research is adopted in theory development, preparing the grounding for future research and as a preliminary step of descriptive or causal research.

Descriptive research design is defined as the study conducted to get deeper insights about particular phenomena of subject research area and its characteristics (Zawawi, 2007). This type of research describes the existing phenomenon rather than explaining how and why it happens. Descriptive research is employed when there is literature as well as theoretical grounding for the hypothesized relationships. The review of extant literature

delineates the specific research question, research gap and theoretical support for the tentatively formed hypothesis. Descriptive research predominantly adopts quantitative research design since most of the studies will be empirically tested using sampling methods. Unlike causal studies, no controlling variable is often used for descriptive studies. While exploratory research tries to generate new hypotheses, descriptive research tests the already proposed hypotheses based on theoretical foundations.

The causal research known as conclusive research as well tries to establish causal effect between two variables. This research design addresses how and why the causal effect happens. Experimental designs are mostly employed to conduct causal research. The causal research is highly structured compared to exploratory or descriptive models. In causal research the causal sequence is ensured which means cause should occur before effect. Control variables are used to ensure that the causal relationship is not attributed to a third factor. Concurrent variation is one of the fundamental characteristics of causal research. Concurrent variation ensures whenever there is a causal variable, it always leads to corresponding effect variable.

Research Design

Research design refers to the comprehensive research framework involving the philosophical grounding, methodological choice and techniques of data collection and analysis. The research design is selected based on the type of research problem to be addressed, nature of the study, availability of the literature and other factors.

Survey based research is the most commonly adopted design in management studies. Survey research is helpful and effective while the population of the study is considerably

large (Saunders *et al.*, 2007). Survey method enables the researcher to collect the data in a standardized structure.

For the last few decades, empirical studies using survey methods have dominated the marketing literature. In service marketing perspective, most of the studies are objectively conceptualized and empirically tested using survey based research from the 1970s (Lin 2016). In marketing studies, quantitative research methods are often preferred over qualitative methods, since descriptive and causal methods based on numeric data analysis are commonly used in management disciplines. Empirical studies based on quantitative techniques are appropriate to measure the impact of visual servicescape aesthetic in various hospitality contexts (Kumar *et al.*, 2013). Survey based descriptive research is more effective in behavioral and attitudinal studies. It enables the researcher to get proper data which substantiate the relational hypothesis formed.

The present study adopts quantitative and descriptive research model using cross sectional data, as the prime focus of this study is to develop a conceptual model based on literature support and theoretical grounding and empirically testing it using field data. The study considers the visual servicescape aesthetics construct and its consequents like cognitive, affective and behavioral responses. Survey based empirical analysis is quite powerful to accommodate psychological variables like cognitive and affective dimensions of response and behavioral intentions of the customer.

Most of the studies related to servicescape aesthetics are conducted in the hospitality industries. Bulk of these studies has been carried out using empirical survey based

studies. These studies have analysed the effect of one or more servicescape attributes in context like restaurants, hotels, airlines and other hospitality industries.

The current study is based on purely quantitative and descriptive research to study the effect of visual servicescape aesthetics on cognitive and affective evaluation, customer satisfaction and behavioral intentions. The qualitative techniques are not considered in this study since the data collection is completed by survey method and no qualitative research tools like open ended questionnaire, focus group interview or other methods are employed.

Population and Sampling

The customers of premium hotels all over India are considered as the population of the study. The current study tries to measure the individual's visual servicescape aesthetics comprehension and appreciation (VSACA) in the hotel industry in India. The premium hotels of metropolitan cities in India like Delhi, Mumbai, Bengaluru, Chennai, Kolkata and Kochi were considered for the study. Customers from the hotels with rating of two star and above were considered for the study since the proposed model is not applicable for budgetary or economic hotels.

The customers in the premium hotels in the metropolitan cities were contacted and data were collected using both online and offline methods. The data collection procedure was a challenging task since most of the customers were reluctant to respond due to privacy and security reasons.

Sampling Technique

The sampling technique is broadly classified into random sampling and non-random sampling. The random sampling known as probability sampling as well, is the sampling design where all the sample units have equal chance to get selected as sample. The non-random sampling otherwise known as non-probability sampling is the sampling design where factors other than the randomness are considered while selecting the sample units like convenience or the judgment of the researcher.

The primary focus of the study is to measure the individual's subjective visual servicescape aesthetics in the hostel industry. The random sampling technique could not be used in the current study since getting the comprehensive list of all customers in hotel industry is almost impossible. Hence the data were collected based on the convenience of the researcher.

Justification for Sample Size

The current study uses a sample size of 442 for doing empirical validation using the advanced statistical techniques like Exploratory Factor Analysis, Confirmatory Factor Analysis and Path Analysis using Structural Equation Modelling. The application of non-random sampling technique does not require a specific range of sample size but rather it is based on the recommendation of other researchers based on the nature of the study, type of respondents and other constraints like accessibility, feasibility and financial viability etc. (Copas & Li, 1997). The current study considered the sample size of the earlier empirical papers which primarily employed the statistical techniques like Exploratory Factor Analysis and Structural Equation Modelling for data analysis. The

study also considered the ratio of sample size to the constructs considered for the study recommended by literature.

The sample size of 442 considered in this study is justified on following recommendations. Westland (2010) recommended that a minimum of 1:10 ratio should be maintained between the observed items of highest factor and total response. The VSACA construct has the highest number of observed items of 10. According to this recommendation a sample size of 100 and above is sufficient to proceed with the analysis. Hair *et al.* (2010) stated that for each manifested variable in the model there should be five to ten responses in order to get better predictive results. According to this recommendation, the current study is having a total of 24 observed items in different constructs and sample size of 240 will be sufficient to proceed for the advanced statistical techniques like Exploratory Factor Analysis and Structural Equation Modelling.

Gorscuh *et al.* (1983) suggested that there should be a minimum of five responses for every observed item in the conceptual model in order to conduct Structural Equation Modelling. According to this recommendation any sample size above 150 is sufficient enough to do SEM. Chin and Newsted (1999) recommended that sample size should be at least ten times of the number of exogenous constructs in the model. Hair *et al.* (2013) pointed that if the number of latent constructs is seven or below the sample size of 70 to 80 is conducive to produce good fit indices and is capable of producing 80 percentage of the statistical power while determining the coefficient of determination for the endogenous constructs.

A thorough analysis of the recent empirical studies in service environment and servicescape aesthetics mostly considered the sample size ranging from 200 to 500 (Lin, 2016). Any number above 200 is considered as a rule of thumb to perform Structural Equation Modelling. Thus, the sample size of 442 considered in this study is found to be sufficient to proceed with the analysis.

Data collection Technique

The data were collected through the survey method using a self-administered questionnaire. The questionnaire consisted of mainly four parts. The first part primarily dealt with the demographic profile of the participants including gender, age, educational qualification and income. The second part dealt with the visual servicescape aesthetics which measured their subjective conceptualization of VSACA construct. The VSACCA construct consists of 10 items which is the instrument developed by Lin (2016) to measure the individual's overall perception about the visual servicescape aesthetics dimensions of a specific service environment.

The third part deals with affective and cognitive evaluation. This part contains the questions regarding emotional and value driven perceptions of hotel customers. The Affective evaluation construct contains three items and the cognitive evaluation construct contains four items. These two items primarily measure customers' cognitive schema and affective states while using hospitality services.

The fourth part contains questions about hotel customers' satisfaction level and subsequent behavioral intentions. This part measures how much customers are satisfied with visual servicescape aesthetic dimensions embedded within the hotel service

environment and how these factors decide customers' subsequent behavioral schema like spreading positive word of mouth, positive recommendation and attitudinal loyalty.

A pilot study was conducted with 50 responses to ensure robustness of self-administered questionnaire. The pilot test was employed to ensure that information collected through questionnaire is valid and reliable to proceed for further analysis. It also facilitated the researcher to understand whether the wording and structure of the questionnaire are properly arranged and the responses obtained are suitable to use for further analysis.

Approaching the participants in premium hotels was a challenging task since most of the hotel managers didn't permit such venture due to security and privacy reasons. So the data were collected using offline and online survey methods depending on convenience and judgment of the researcher. The participants voluntarily participated in survey research. Participants were not compelled or influenced in any way to participate in the survey in order to eliminate bias in the data. The objectives of the research and the questionnaire pattern were explained to the participants which smoothened the process of data collection.

Measurement of Constructs

The constructs considered in the present VSACA, affective evaluation, cognitive evaluation, customer satisfaction and behavioral intentions are conceptualized as latent constructs which cannot be measured by direct items in the questionnaire. Rather, all these constructs are measured using manifest variables or indicators of the corresponding latent factors. The current study adopted pre-tested and pre-validated scales to measure

these constructs which were used to measure the same latent factors in other contexts and industries.

Visual Servicescape Aesthetics Comprehension and Appreciation

Visual Servicescape Aesthetics Comprehension and Appreciation (VSACA) construct is developed based on extending the Centrality of Visual Product Aesthetics (CVPA) construct developed by Bloch *et al.* (2003) to measure the visual servicescape aesthetic dimensions of manufactured products. The CVPA construct was modified by Lin (2016) to accommodate the visual aesthetic dimensions of the service environment.

VSACA is defined as the individual's cognitive and psychological process to understand the visual aesthetic cues and stimuli embedded within the service environment. The construct is measured using 10 items recommended by Lin (2016). The VSACA construct includes the questions related to the ability to comprehend and appreciate the subtle visual aesthetic dimensions in a hotel's service environment like the beauty of designs, displays, artefacts and other visual elements of art and beauty. The VSACA is measured using a 5 point Likert scale (1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree).

VSACA	Manifest variables in VSACA construct
VSACA 1	<i>“Staying at hotels that have superior designs make me feel good about myself”</i>

VSACA 2	<i>“I enjoy seeing displays of artefacts that have superior designs”</i>
VSACA 3	<i>“A servicescape design is a source of pleasure for me. For example, beautiful hotel designs make our world a better place to live”</i>
VSACA 4	<i>“Being able to see subtle difference in hotel servicescape designs is one skill that I have developed over time”</i>
VSACA 5	<i>“I see things in a servicescape’s design that other people tend to pass over”</i>
VSACA 6	<i>“I have the ability to imagine how a product will fit in with designs of other things I already own”</i>
VSACA 7	<i>“I have a pretty good idea of what makes one hotel look better than its competitors”</i>
VSACA 8	<i>“Sometimes the way a hotel looks seems to reach out and grab me”</i>
VSACA 9	<i>“If a hotel’s interior design really “speaks” to me, I feel that I must stay at that hotel”</i>
VSACA 10	<i>“When I see a servicescape that has a really great design, I feel a strong urge to patronage”</i>

Affective Evaluation

The construct of Affective evaluation is also measured by the pre-validated scale to measure the emotional response behavior related to specific environment. Affective evaluation refers to emotional assessment of the environmental stimuli. In servicescape aesthetics perspective affective evaluation refers to how an individual’s emotional response schema is processed when encountered by visual aesthetic dimensions of the hotel environment.

Affective evaluation is measured by adopted scale from previous studies (Oliver 1999) which measured the affective responses to the specific environmental stimuli. This scale

comprises 3 manifest variables of affective evaluation. A 5 point Likert scale is used to collect the response (1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree).

AE	Manifest variables in Affective Evaluation construct
AE 1	<i>“I like this hotel more than other hotels”</i>
AE 2	<i>“I am happy about my decision to stay at this hotel”</i>
AE 3	<i>“I love staying at this hotel”</i>

Cognitive Evaluation

Cognitive Evaluation construct measures the customers’ evaluation process based on value judgment and acumen. Cognition refers to the application of an individual’s reason and intellect while judging the cost benefit discrepancy. The disconfirmation model in behavioral science explains the cognitive schema of the individual. In the visual servicescape aesthetics perspective, cognitive evaluation refers to the process of comparing the actual benefits received from the hotel service environment with expected service outcome.

The present study adopted a 4 items scale to measure the cognitive evaluation based on earlier studies (Han & Hyun, 2012). The four manifest variables were measured using a 5 point Likert scale (1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree).

CE	Manifest variables in Cognitive Evaluation construct
CE 1	<i>“This hotel offers good value for the price”</i>
CE 2	<i>“This hotel provides a good deal compared to others”</i>
CE 3	<i>“My overall image of this hotel is positive”</i>
CE 4	<i>“Overall, I have a good image of this hotel”</i>

Customer Satisfaction

Customer satisfaction is the evaluative process by which a customer comprehends that the service consumption was at least as good as it was expected to be. The construct of customer satisfaction has been defined and conceptualized in many ways and different contexts. However, there is a general agreement among scholars that customer satisfaction is getting the actual performance delivered at par or above the initial set standards set by the customer. The present study conceptualized the customer satisfaction in the hotel industry context as evaluative positive judgment about the hotel service and a sense of fulfilment.

Customer satisfaction has been measured by pre-validated and pre-tested scale in the previous empirical studies by Oliver (1997). This scale involves the dimensions like satisfactory experience, comparative advantage and wise decision selecting the specific hotel servicescape. The construct is measured by the scale containing 3 items and a 5

point Likert scale is used to collect the responses (1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree).

CS	Manifest variables in Customer Satisfaction construct
CS1	<i>“Overall, I am satisfied with my experience when staying at this hotel”</i>
CS2	<i>“Overall, compared to other hotels, I am satisfied with this hotel”</i>
CS3	<i>“My decision to choose this hotel was a wise one”</i>

Behavioral Intentions

Behavioral intention is the individual’s behavioral schema associated with the consumption of specific product or service. It is the assessment of customers’ post purchase intentions and engagement with the firm in spreading word of mouth, re-patronage, and recommendation. In service marketing literature, behavioral intentions and attitudinal loyalty are used interchangeably. The future visit and recommendation are considered as the dimensions of behavioral intentions construct in visual servicescape aesthetics perspective in the hotel industry.

The construct of behavioral intention is measured using the scale suggested by Maxham (2002) and Han (2013). The scale was pre-tested and validated in different product and service contexts in different studies. The measure consists of 4 manifest variables and a 5

point Likert scale is used to collect the responses. (1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree).

BI	Manifest variables in <i>Behavioral Intentions</i> construct
BI 1	<i>“I plan to stay at this hotel when I travel in the future”</i>
BI 2	<i>“I am willing to stay at this hotel again in the future,”</i>
BI 3	<i>“I will encourage other people to choose this hotel”</i>
BI 4	<i>“If someone wants to choose a hotel, I will suggest he/she choose this hotel”</i>

Pilot Study Results

Pilot study was conducted to measure the robustness of the scales with 50 respondents. The purpose of conducting pilot study was to ensure that scales are having adequate reliability and validity in order to proceed for the data analysis. Exploratory Factor Analysis (EFA) was performed using IBM SPSS 21 to check the manifest variables were loading properly on the corresponding constructs. Initially there were some cross loadings when the latent factors were loaded based on the Eigen values and the items were getting loaded on more than 5 factors which were considered in this study. This was resolved by restricting the number of latent constructs to 5 while performing the EFA.

The table 4.6 shows the results of Kaiser-Meyer-Olkin (KMO) test conducted to measure the sample adequacy to proceed for factor analysis. The KMO value is found to be 0.85 which is quite higher above the threshold value of 0.5. The KMO result shows that the sample for pre-testing the questionnaire is adequate to perform EFA. The result of Bartlett's Test of Sphericity is found to be significant at $p < 0.001$ with Chi-Square value of 3150.64 and degrees of freedom of 276. Bartlett's Test proved that there is correlation between the constructs considered in the study.

Table 4.6 KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.852
	Approx. Chi-Square	3150.647
Bartlett's Test of Sphericity	df	276
	Sig.	.000

The table 4.7 details the initial and extracted communalities of each observed variable in the study. Communality measures the proportion of variance explained by each manifest variable out of the corresponding latent factor.

Table 4.7 Communalities

	Communalities	
	Initial	Extraction
VSACA1	1.000	.697

VSACA2	1.000	.910
VSACA3	1.000	.898
VSACA4	1.000	.851
VSACA5	1.000	.860
VSACA6	1.000	.923
VSACA7	1.000	.920
VSACA8	1.000	.827
VSACA9	1.000	.861
VSACA10	1.000	.800
AE1	1.000	.926
AE2	1.000	.975
AE3	1.000	.935
CE1	1.000	.886
CE2	1.000	.963
CE3	1.000	.861
CE4	1.000	.945
CS1	1.000	.837
CS2	1.000	.739
CS3	1.000	.841
BI1	1.000	.825
BI2	1.000	.780
BI3	1.000	.714
BI4	1.000	.799

The table 4.8 shows the variance accounted by each latent construct in the model. A total of 85.72% percentage of total variance in the manifest variables is explained by 5 latent constructs. VSACA is accounted for 35.42% followed by cognitive evaluation which explains 15.40% of the total variance. The construct of Behavioral intentions accounts for 12.85% of the variance. The constructs Affective evaluation and customer satisfaction explain 11.91% and 10.11% of total variance respectively.

Table 4.8 Total Variance Explained

C o m p o n e n t	Total Variance Explained								
	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.619	40.079	40.079	9.619	40.079	40.079	8.503	35.428	35.428
2	4.045	16.856	56.935	4.045	16.856	56.935	3.697	15.403	50.831
3	2.994	12.475	69.410	2.994	12.475	69.410	3.086	12.858	63.689
4	2.147	8.946	78.356	2.147	8.946	78.356	2.861	11.919	75.608
5	1.769	7.370	85.725	1.769	7.370	85.725	2.428	10.117	85.725
6	.566	2.359	88.084						

7	.430	1.791	89.875
8	.371	1.547	91.422
9	.354	1.477	92.898
10	.287	1.197	94.095
11	.243	1.012	95.108
12	.225	.938	96.045
13	.191	.797	96.843
14	.172	.716	97.558
15	.116	.485	98.044
16	.106	.443	98.486
17	.092	.385	98.871
18	.062	.257	99.128
19	.055	.227	99.356
20	.040	.165	99.520
21	.035	.145	99.665
22	.034	.141	99.806
23	.029	.120	99.926
24	.018	.074	100.000

Extraction Method: Principal Component Analysis.

Scree Plot

The Scree plot is the graphical representation of the number of latent constructs to be retained based on the Eigen value. The number of final constructs is determined based on

Eigen values more than one. The five latent constructs considered in the study have the Eigen values more than 1 which reaffirms the uni-dimensionality of the components generated.



Table 4.9 shows the final structure of manifest variables loaded on different latent constructs. This matrix involves the factor loading of each variable to the corresponding factor. Factor loading represents the correlation between each variable and the latent factor.

Table 4.9 Rotated Component Matrix

Rotated Component Matrix					
	Component				
	1	2	3	4	5
VSACA1	.811				
VSACA2	.932				
VSACA3	.932				
VSACA4	.901				

VSACA5	.918		
VSACA6	.948		
VSACA7	.948		
VSACA8	.902		
VSACA9	.908		
VSACA10	.883		
AE1			.935
AE2			.965
AE3			.924
CE1	.932		
CE2	.967		
CE3	.907		
CE4	.956		
CS1			.893
CS2			.842
CS3			.906
BI1	.842		
BI2	.829		
BI3	.820		
BI4	.878		

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Table 4.11 details the Cronbach's alpha values of each latent construct in the model. Cronbach's alpha is used to measure the reliability and internal consistency of constructs. The values were in the range of 0.876 to 0.980 which were fairly above the threshold value of 0.7. Hence, the internal consistency of the constructs in the model was reaffirmed.

Table 4.11 Construct Reliability

<i>Constructs</i>	<i>No of Items</i>	<i>Cronbach's alpha</i>
<i>VSACA</i>	<i>10</i>	<i>0.980</i>
<i>AE</i>	<i>3</i>	<i>0.971</i>
<i>CE</i>	<i>4</i>	<i>0.978</i>
<i>CS</i>	<i>3</i>	<i>0.876</i>
<i>BI</i>	<i>4</i>	<i>0.898</i>

Conclusion

This chapter discussed the methodological aspect of the current research like the research design, sampling and sampling design, data collection procedure and different tools and techniques of data analysis. It also described in detail about the measurement of constructs used in this study and validation of those measurement scales. It also reported the details of pilot study conducted for the current research.

Chapter 5

Data Analysis

Chapter 5

Data Analysis

This chapter details the procedure of data analysis. The chapter is divided into four sections. The first section explains the demographic profile of the respondents and descriptive measures of the scales adopted for the study. The second section reports the details of Exploratory Factor Analysis. The third section reports the results of Confirmatory Factor Analysis as well as validity and reliability of the measures. The fourth section describes the results of the Path model of Structural Equation Modelling.

Demographic Profile

This section describes the demographic profile of the respondents. Table 5.1.1 and Table 5.1.2 detail the demographic distribution of respondents regarding gender and age. The result shows that 72 per cent of the total 442 respondents are male respondents and 28 per cent are female respondents (Table 5.1.1). The results of age distribution show that 29 percent of the respondents are below 30 years, 36 percent of the respondents fall between 30 and 40 years, 21 percent of the respondents lie between 40 and 50 years and 13 per cent of the respondents are above 50 years (Table 5.1.2)

Table 5.1.1; Gender of the Respondents

Gender	No of Respondents	Percentage
Male	318	72 %
Female	124	28 %

Table 5.1.2; Age of the Respondents

Age	No of Respondents	Percentage
<30	130	29%
30-40	159	36%
40-50	92	21%
>50	61	13%

Descriptive Statistics

This section describes the descriptive statistical measures of the constructs considered in the model. Descriptive statistics included in this study are Mean (Measures of Central Tendency), Standard Deviation (Measures of Dispersion), Skewness and Kurtosis (Measures of Symmetry). The tables 5.2.1 to 5.2.5 detail the descriptive statistical measures of *visual servicescape aesthetics comprehension and appreciation*, *affective evaluation*, *cognitive evaluation*, *customer satisfaction* and *behavioral intentions*. Each manifested variable of the above mentioned constructs are measured on a five point Likert scale continuum (1 for strong disagreement and 5 for strong agreement).

Table 5.2.1 Descriptive Statistics (VSACA)

VSACA	Description of the Items	Mean	SD	Skewness	Kurtosis
VSACA 1	<i>“Staying at hotels that have superior designs make me feel good about myself”</i>	3.14	1.417	-.173	-1.297

VSACA 2	<i>“I enjoy seeing displays of artefacts that have superior designs”</i>	3.17	1.407	-.171	-1.283
VSACA 3	<i>“A servicescape design is a source of pleasure for me. For example, beautiful hotel designs make our world a better place to live”</i>	3.19	1.391	-.184	-1.257
VSACA 4	<i>“Being able to see subtle difference in hotel servicescape designs is one skill that I have developed over time”</i>	3.14	1.407	-.143	-1.297
VSACA 5	<i>“I see things in a servicescape’s design that other people tend to pass over”</i>	3.13	1.403	-.136	-1.294
VSACA 6	<i>“I have the ability to imagine how a product will fit in with designs of other things I already own”</i>	3.13	1.383	-.127	-1.270
VSACA 7	<i>“I have a pretty good idea of what makes one hotel look better than its competitors”</i>	3.16	1.384	-.150	-1.263
VSACA 8	<i>“Sometimes the way a hotel looks seems to reach out and grab me”</i>	3.17	1.391	-.161	-1.267
VSACA 9	<i>“If a hotel’s interior design really “speaks” to me, I feel that I must</i>	3.14	1.399	-.147	-1.283

	<i>stay at that hotel”</i>				
VSACA 10	<i>“When I see a servicescape that has a really great design, I feel a strong urge to patronage”</i>	3.11	1.294	-.260	-1.118

Table 5.2.2 Descriptive Statistics (AE)

AE	Description of the Items	Mean	SD	Skewness	Kurtosis
AE 1	<i>“I like this hotel more than other hotels”</i>	3.09	1.064	-.324	-.527
AE 2	<i>“I am happy about my decision to stay at this hotel”</i>	3.11	1.053	-.335	-.495
AE 3	<i>“I love staying at this hotel”</i>	3.07	1.080	-.298	-.573

Table 5.2.3 Descriptive Statistics (CE)

CE	Description of the Items	Mean	SD	Skewness	Kurtosis

CE 1	<i>“This hotel offers good value for the price”</i>	3.29	1.063	-.338	-.492
CE 2	<i>“This hotel provides a good deal compared to others”</i>	3.22	1.074	-.279	-.602
CE 3	<i>“My overall image of this hotel is positive”</i>	3.24	1.053	-.339	-.469
CE 4	<i>“Overall, I have a good image of this hotel”</i>	3.30	1.016	-.395	-.362

Table 5.2.4 Descriptive Statistics (CS)

CS	Description of the Items	Mean	SD	Skewness	Kurtosis
CS 1	<i>“Overall, I am satisfied with my experience when staying at this hotel”</i>	3.13	1.187	-.358	-.788
CS 2	<i>“Overall, compared to other hotel, I am satisfied with this hotel”</i>	3.06	1.158	-.296	-.805
CS 3	<i>“My decision to choose this hotel was a wise one”</i>	3.08	1.138	-.346	-.717

Table 5.2.5 Descriptive Statistics (BI)

BI	Description of the Items	Mean	SD	Skewness	Kurtosis
BI 1	<i>“I plan to stay at this hotel when I travel in the future”</i>	3.09	1.158	-.305	-.696
BI 2	<i>“I am willing to stay at this hotel again in the future”</i>	3.19	1.190	-.364	-.706
BI 3	<i>“I will encourage other people to choose this hotel”</i>	3.14	1.188	-.355	-.728
BI 4	<i>“If someone wants to choose a hotel, I will suggest he/she choose this hotel”</i>	3.20	1.158	-.372	-.614

The tables from 5.2.1 to 5.2.5 show the descriptive statistical measures of the constructs of VSACA, Affective evaluation, cognitive evaluation, customer satisfaction and behavioral intentions. The mean values of VSACA construct vary from 3.11 to 3.19 and stand deviation ranges from 1.29 to 1.41. The mean values of affective evaluation range from 3.07 to 3.11 and stand deviation varies from 1.06 to 1.08. The mean values of cognitive evaluation vary from 3.22 to 3.30 and standard deviation ranges from 1.01 to 1.07. The mean values of customer satisfaction range from 3.06 to 3.13 and standard deviation ranges from 1.13 to 1.18. The mean values of behavioral intentions range from 3.09 to 3.20 and standard deviation ranges from 1.15 to 1.19.

The range of mean values (> 3) of all the constructs shows that there is a positive perception among the respondents regarding the comprehension and appreciation of visual aesthetic dimensions in the servicescape and its consequences like affective evaluation, cognitive evaluation, customer satisfaction and behavioral intentions. The standard deviation values of all the constructs are marginally above 1 which indicates that there is slight deviation in the perception of the customers.

Measures of symmetry (Skewness and Kurtosis) are also reported in tables 5.2.1 to 5.2.5. Skewness is the statistical tool to measure the asymmetry of a data distribution. It measures the degree of deviation from the normality of the distribution (Bell shaped curve). Kurtosis is the statistical tool to measure how peaked is the data distribution. The peakedness or flatness of the data determines how the values are concentrated near to the mean of the distribution. George and Mallery (2010) argued that if the values of Skewness and kurtosis are reported in the range of -2 to +2, the univariate normality is assumed. Hair *et al.* (2010) and Bryne (2001) state that the distribution of the data is assumed to be normal if the Skewness lies in between -2 and +2 and kurtosis value lies in between -7 and +7. The multivariate normality is assumed if the Skewness of the distribution is within the acceptable range of -1.5 to +1.5 (Fidell & Tabachnik, 2013). Bryne (2001) and Kline (2011) state that if the Skewness is within the range of -1 to +1, the data is assumed to be marginally skewed and if the Skewness is within the range of -2 to +2, the data is assumed to be considerably skewed and if the Skewness range is -3 to +3, the data is extremely skewed implying the non-normality of the data.

The results of the Skewness and Kurtosis values presented in tables 5.2.1 to 5.2.5 show that Skewness of the entire list of observed items are within the range of 0 and -0.5 which

implies that though there is marginal negative Skewness, data can be assumed to be multivariate normal (George & Mallery 2010; Hair *et al.*, 2010; Bryne 2001; Fidell & Tabachnik, 2013). The Kurtosis values of the constructs of affective evaluation, cognitive evaluation, customer satisfaction and behavioral intentions lie between 0 and -1. The kurtosis values of VSACA items lie marginally above -1 but within the acceptable range of -1.5. Since the kurtosis values are also within the prescribed acceptable limit (George & Mallery, 2010, Hair *et al.*, 2010; Bryne 2010; Fidell & Tabachnik, 2013), the multivariate normality of the data set is reaffirmed which is one of the prerequisites of the advanced data analysis techniques like Exploratory Factor Analysis, Confirmatory Factor Analysis and Structural Equation Modelling.

Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is the most famous multivariate statistical technique for dimension reduction which uncovers the hidden latent factors in the data set based on the covariance matrix of manifest variables (Bryne, 2001). EFA is primarily used to develop scales to measure the underlying latent constructs which are unknown to the researcher. EFA is recommended when the researcher has no prior knowledge or theoretical support for the hypothetical relationship between latent construct and measured items. EFA involves different techniques of extraction and rotation in order to finalise the underlying factor dimensions.

Since the latent constructs in the present study are measured using pre-tested and pre-validated scales used in previous empirical studies, EFA is not used as a procedure of scale development or dimension reduction of the bigger data set. Rather, EFA is used as a

preliminary step to perform Confirmatory Factor Analysis (CFA) and Path Modelling using Structural Equation Modelling (SEM) based on the recommendations of previous empirical studies based on SEM.

The present study performs EFA to identify the structure of latent constructs and the association of observed variables with corresponding factors. The Statistical Software SPSS Version 21 is used for the analysis. The procedure recommended by Osborne (2014) to perform EFA is followed in this study which is explained below.

Step 1: The first prerequisite to conduct EFA is to determine the extraction method used to uncover the hidden underlying latent constructs in the dataset. Extraction method is the category of statistical algorithms used for reducing the larger set of observed items into a smaller set of factors or dimensions. Maximum Likelihood Estimation (MLE) is one of the popular methods of extraction used in EFA. The MLE method is recommended when the collected data is having all the attributes of perfect normality. The Principle Component Analysis (PCA) is another popular method of EFA. The PCA method has the potential to accommodate the data sets which are marginally or moderately skewed and non-normal. Though the data collected for the study is assumed to be normal based on the recommendations of (Hair *et al.*, 2010; Fidell & Tabachnick, 2013), PCA method is used for extraction and preferred over MLE due to the slight deviations (Skewness ranging from 0 to -1, and Kurtosis values ranging from 0 to -1.5).

Step 2: The next step in conducting EFA is to decide how many latent factors are to be retained after the analysis. In scale development, Kaiser Criterion and Scree plot based on the Eigen values are considered as the criteria to fix the number of underlying factor

dimensions. Kaiser criterion is defined as finalising the components which have Eigen values more than 1. Scree plot is the graphical representation of Eigen values of all the components in the analysis. The number of components above the elbow (extreme bend) is considered as the final latent constructs.

The present study does not intend to reduce the dimensions or form the latent factors. Since the study uses pre-validated scales to measure the constructs, the study considers the option of fixed number of factors while doing Principal Component Analysis and considers Kaiser Criterion and Scree plot as reference for the number of constructs.

Step 3: The next step to conduct EFA is to determine the method of rotation adopted in EFA to simplify the factor structure. Depending upon the angle of correlating axes, the rotation method in EFA is classified as *orthogonal* rotation which fixes 90^0 between the axes and *oblique* rotation which fixes angles other than 90^0 between the axes. The fundamental difference between the two different methods is that *orthogonal rotation* explores the factors which do not correlate and oblique rotation produces the final factors that correlate each other. Varimax, Quartimax and Equimax are categories of orthogonal rotation and Direct Oblimin and Promax are the categories of oblique rotation.

The present study operates Principal Component Analysis (PCA) as the method of factor extraction and uses Varimax as the method of rotation. Varimax is preferred over other methods as this rotation produces the factors in such a way that will enhance the explained variance of the final component by maximizing higher loading variables and limiting the lower loading variables.

Step 4: The next step is to run the EFA. The results of EFA; KMO and Barlett's test, Correlation matrix, Communalities, Total Variance explained, Scree Plot, rotated component matrix are discussed further.

Results of Exploratory Factor Analysis

KMO and Bartlett's Test

Exploratory factor analysis was run using IBM SPSS Version 21. Principal component analysis method was used for extraction and orthogonal Varimax method was adopted for rotation. 442 responses were used for the analysis. The Table 5.3.1 shows the results of Kaiser-Meyer-Olkin (KMO) test for sample adequacy and Barlett's test for sphericity. KMO measure value is reported to be 0.932 which is quite above the statistical threshold value of 0.5. The KMO measure substantiates the adequacy of sample size 442 for the analysis implying suitability of the data for further analysis (Kline, 2014).

Barlett's test is the statistical technique to measure the presence of potential redundancy among the manifest variables in the data set by comparing the observed matrix with identical one. Bartlett's test measure is reported as statistically significant (p value=0.000) with chi square value of 12139.253 and degrees of freedom of 276. The result implies that there is some sort of correlation among the manifest variables.

Table 5.3.1 KMO and Bartlett's Test

KMO and Bartlett's Test		
<i>Kaiser-Meyer-Olkin Measure of Sampling Adequacy.</i>		.932
<i>Bartlett's Test of Sphericity</i>	<i>Approx. Chi-Square</i>	12139.253

	<i>df</i>	276
	<i>Sig.</i>	.000

Communalities

Communality is the measure of variance explained by each manifest variable out of corresponding latent factor. Statistically, communality is the square of factor loading of each manifest variable to corresponding factor. Higher the value of communality indicates the more variance explained by the item implying higher reliability of the measure (Field, 2000)

The details of communalities of all the constructs are reported in table 5.3.2. All observed items of VSACA have the communality value more than 0.77 with VSACA8 having the highest value of 0.89. Affective evaluation items are reported to have the communalities above 0.89 with AE2 having the highest value of 0.95. Cognitive evaluation items have the values above 0.87 with CE1 having the highest value of 0.90. The communalities of customer satisfaction are reported to be above 0.73 and CS3 having the highest communality value of 0.84. Behavioral intentions items are reported to be having the communality values above 0.74 with BI1 having the highest value of 0.85.

Table 5.3.2 Communalities

Item	Communalities	
	Initial	Extraction
VSACA1	1.000	.821
VSACA2	1.000	.857

VSACA3	1.000	.872
VSACA4	1.000	.839
VSACA5	1.000	.776
VSACA6	1.000	.843
VSACA7	1.000	.872
VSACA8	1.000	.894
VSACA9	1.000	.848
VSACA10	1.000	.862
AE1	1.000	.948
AE2	1.000	.955
AE3	1.000	.898
CE1	1.000	.909
CE2	1.000	.879
CE3	1.000	.890
CE4	1.000	.899
CS1	1.000	.732
CS2	1.000	.818
CS3	1.000	.845
BI1	1.000	.851
BI2	1.000	.741
BI3	1.000	.757
BI4	1.000	.811

Extraction Method: Principal Component Analysis.

Total Variance Explained

The table 5.3.3 below details the variance explained by each latent construct, percentage of the total variance and the cumulative variance explained by constructs. Based on the Kaiser criterion of Eigen values more than 1, the five constructs explains about 85 percentage of the total variance in the data. The table lists the factors with higher Eigen values in descending order with VSACA construct accounting for 35.15 percentage of variance with Eigen value of 9.89 followed by Cognitive evaluation which explains 14.97 percentage of the total variance with Eigen value of 3.66. The next component is behavioral intentions which accounts for 13.57 percentage of the variance with Eigen value of 2.73. Affective evaluation explains 11.68 percentage of the variance with Eigen value of 2.16 followed by customer satisfaction which accounts for 9.65 percentage of the total variance with Eigen value of 1.94. The remaining factors which do not have Eigen values more than 1 are explaining the remaining 15 percentage of the variance, are not considered in the study due to Kaiser Criterion.

Table 5.3.3 Total Variance Explained

Com pone nt	Total Variance Explained								
	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.898	41.242	41.242	9.898	41.242	41.242	8.438	35.159	35.159
2	3.665	15.269	56.511	3.665	15.269	56.511	3.593	14.972	50.131

3	2.738	11.410	67.921	2.73_8	11.410	67.921	3.25_8	13.574	63.705
4	2.169	9.037	76.958	2.16_9	9.037	76.958	2.80_5	11.686	75.391
5	1.946	8.108	85.067	1.94_6	8.108	85.067	2.32_2	9.675	85.067
6	.402	1.676	86.743						
7	.368	1.532	88.275						
8	.313	1.304	89.579						
9	.278	1.157	90.736						
10	.253	1.053	91.789						
11	.227	.945	92.734						
12	.207	.862	93.596						
13	.186	.775	94.371						
14	.171	.713	95.084						
15	.161	.671	95.755						
16	.154	.641	96.396						
17	.148	.616	97.011						
18	.134	.559	97.571						
19	.126	.526	98.097						
20	.112	.466	98.563						
21	.109	.456	99.018						
22	.104	.433	99.451						
23	.086	.357	99.808						
24	.046	.192	100.00 0						

Extraction Method: Principal Component Analysis.

Component Matrix

The table 5.3.4 reports the initial component structure before rotation. The observed variables are getting cross loaded as the items of second and third components are getting loaded into Cognitive evaluation construct. The cross loading is resolved in component matrix after Varimax rotation as shown in table 5.4.5

Table 5.3.4 Component Matrix					
Component Matrix ^a					
	Component				
	1	2	3	4	5
VSAC A1	.859				
VSAC A2	.887				
VSAC A3	.884				
VSAC A4	.877				
VSAC A5	.835				
VSAC A6	.867				
VSAC A7	.875				
VSAC A8	.901				

VSAC A9	.882			
VSAC A10	.878			
AE1			-.521	
AE2			-.529	
AE3			-.506	
CE1	.572	-.631		
CE2	.555	-.640		
CE3	.584	-.588		
CE4	.567	-.619		
CS1			.586	
CS2			.699	
CS3			.668	.561
BI1	.531			
BI2				
BI3				
BI4	.515			
Extraction Method: Principal Component Analysis.				
a. 5 components extracted.				

Rotated Component Matrix

The table 5.3.5 reports the factor structure after Varimax rotation. This rotation method enhances the factor structure by retaining the most coherent factor structure by maximizing the variance explained by each item. All 24 manifest variables are loaded

into 5 constructs without any cross loading which substantiates the hypothesized structure of latent factor-manifest variables relationship considered in the present study.

Table 5.3.5 Rotated Component Matrix					
Rotated Component Matrix^a					
	Component				
	1	2	3	4	5
VSAC A1	.889				
VSAC A2	.904				
VSAC A3	.919				
VSAC A4	.895				
VSAC A5	.864				
VSAC A6	.904				
VSAC A7	.924				
VSAC A8	.927				
VSAC A9	.897				
VSAC A10	.914				
AE1				.942	
AE2				.950	

AE3		.911
CE1	.936	
CE2	.926	
CE3	.914	
CE4	.928	
CS1		.784
CS2		.888
CS3		.911
BI1	.884	
BI2	.831	
BI3	.849	
BI4	.875	

Extraction Method: Principal Component Analysis.

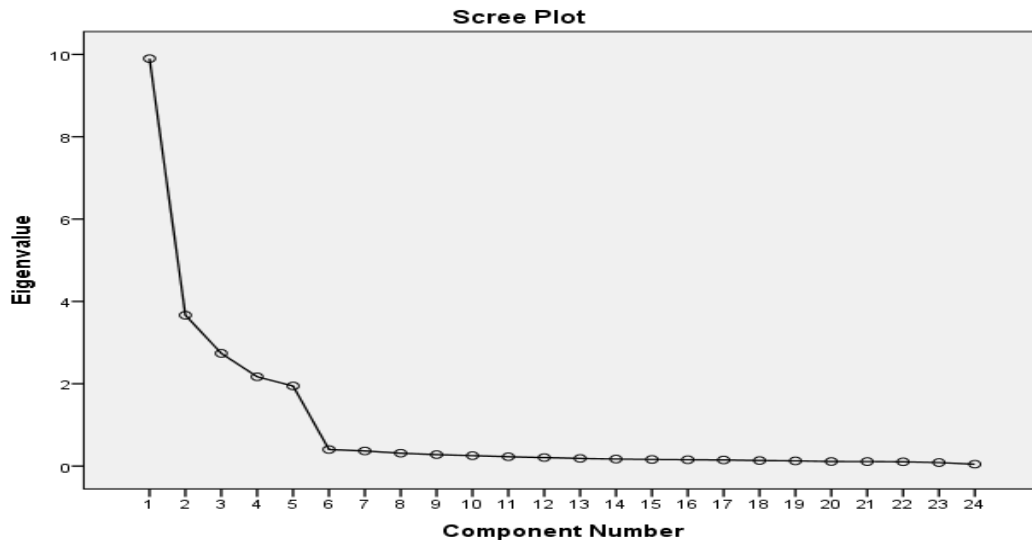
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Scree Plot

Scree plot is the graphical representation of the number of components formed and corresponding Eigen values of each component. The number of final factors can be determined by considering the number of the components above the deep curve of the Scree plot (Elbow of the Scree plot). The components below this curve are negligible since the components below that curve cannot explain the variance of a single manifest variable. The number of final factors which should be retained according to scree plot is 5 which is consistent with hypothesized constructs based on theoretical grounding.

Figure 5.3.6 Scree Plot



Confirmatory Factor Analysis (CFA)

Confirmatory Factor Analysis (CFA) is the most popular multivariate statistical technique used for scale development and scale validation. CFA confirms and verifies the latent construct structure and construct-indicator relationship of each factor based on the covariance matrix. CFA is primarily used to validate the constructs developed through Exploratory Factor Analysis or scales adopted from previous literature using empirical data. Different types of validation techniques are used in CFA like construct validity, nomological validity, convergent validity and discriminant validity. CFA is employed to prove the construct reliability also. The Composite reliability value, which is a more robust technique than Cronbach's alpha is used to measure the validity in CFA.

CFA employs graphical representation of the latent constructs using some standard notations. The latent factors are denoted by ellipses, manifest variables are denoted by

squares or rectangles and error terms are denoted by circles. The relationship between manifest variables and latent factors are denoted by regression paths using single headed arrows implying that the manifest variables are reflectors of the latent constructs. The inter factor relationships are denoted by covariance paths using double headed arrows.

The current study employs Structural Equation Modelling to test the theoretically proposed conceptual model consisting of five latent constructs. SEM primarily involves evaluation of Measurement Model and Path Model. CFA deals with evaluation of measurement models. The validity, reliability and model fit of the measurement model is evaluated based on a series of criterion values. Reliability is defined as the internal consistency of the measurement tool. Reliability measures how consistent a scale is in measuring targeted variables. Validity refers to the potential ability of a scale to measure what exactly intended to measure. In quantitative methodological study, Validity refers to the relevance of the measurement items and reliability refers to the potential of the scale to reproduce the same result in further measurements.

The Figures 5.1 and Figure 5.2 detail the diagrammatic representation of measurement models. Figure 5.1 is the measurement model with un-standardized estimates and Figure 5.2 is the measurement model with standardized estimates. Table 5.4.1 reports un-standardized estimates of manifest variables and latent constructs and table 5.4.2 reports standardized estimates which shows that all hypothesized relationships are significant at $p < 0.001$.

Figure 5.1; Measurement Model (Un-standardized)

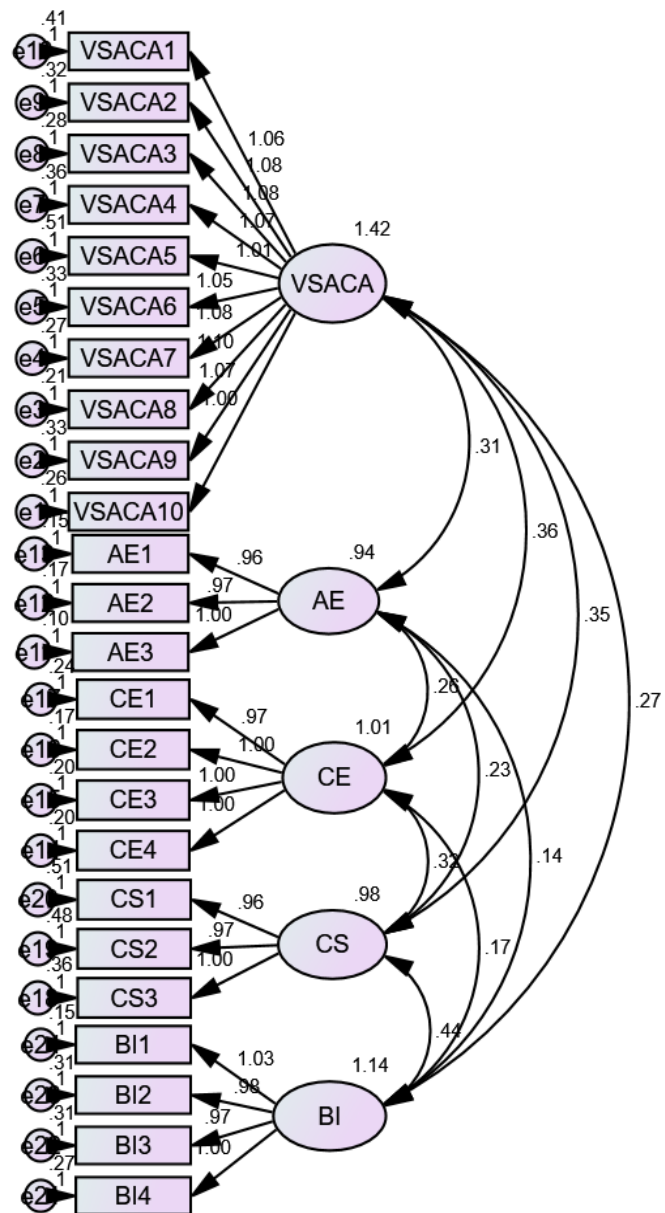


Figure 5.2; Measurement Model (standardized)

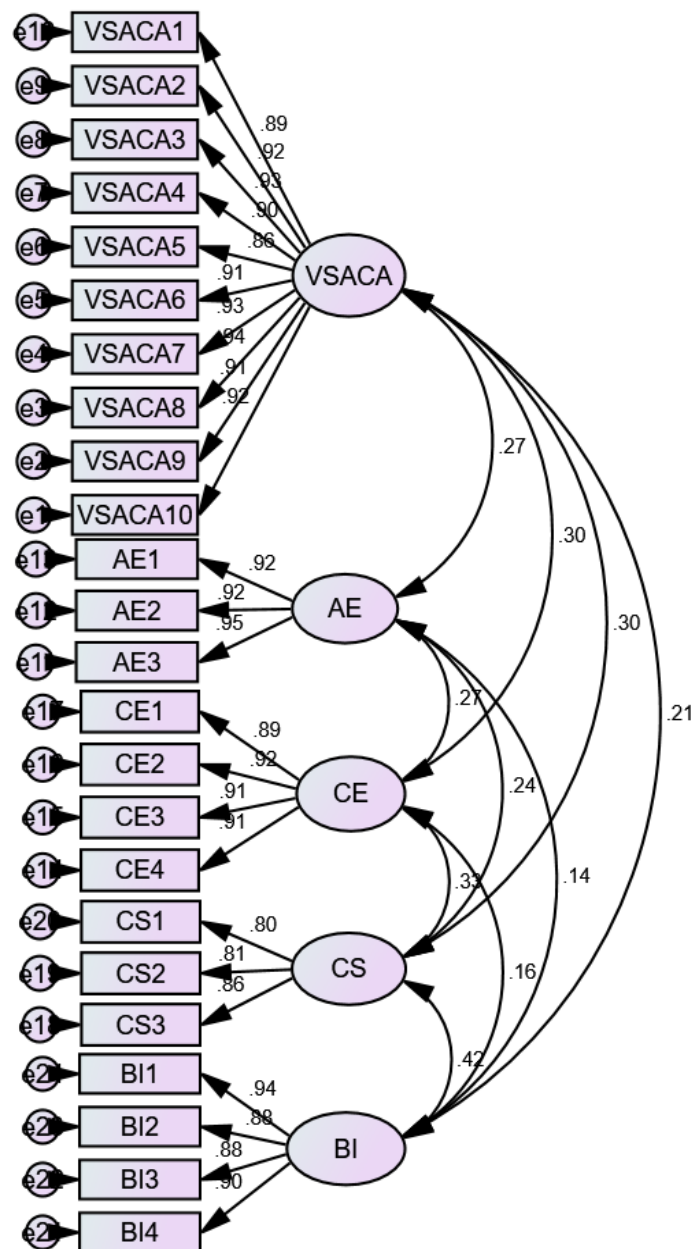


Table 5.4.2 Standardized Regression Weights

			Estimate
VSACA10	<- --	VSACA	.920
VSACA9	<- --	VSACA	.911
VSACA8	<- --	VSACA	.944
VSACA7	<- --	VSACA	.928
VSACA6	<- --	VSACA	.908
VSACA5	<- --	VSACA	.860
VSACA4	<- --	VSACA	.905
VSACA3	<- --	VSACA	.925
VSACA2	<- --	VSACA	.915
VSACA1	<- --	VSACA	.891
AE3	<- --	AE	.949
AE2	<- --	AE	.916
AE1	<- --	AE	.924
CE4	<- --	CE	.913
CE3	<- --	CE	.913
CE2	<- --	CE	.925
CE1	<- --	CE	.893
CS3	<- --	CS	.857
CS2	<- --	CS	.810
CS1	<- --	CS	.800

			Estimate
BI4	<- --	BI	.899
BI3	<- --	BI	.880
BI2	<- --	BI	.883
BI1	<- --	BI	.942

Reliability Analysis

Reliability refers to the potential ability of the measurement scale to measure the internal consistency of the data. Reliability measures the consistency of the scale items within. *Cronbach's alpha* is one of the most popular methods to measure the reliability of the scale. *Cronbach's alpha* is the statistical technique which employs split half method where the entire data is split into different halves and the average covariance of the halves are measured as the reliability value (Burns & Burns, 2008). The values above 0.7 are considered enough to prove the reliability of the scales (Nunnally, 1978). The current study uses SPSS 21 software to measure reliability of the five constructs considered in the study and details of *Cronbach's alpha* values are reported in Table 5.4.3. Reliability values of all the five constructs are reported to be above 0.85 (Table 5.4.3).

Table 5.4.3 Construct Reliability

<i>Constructs</i>	<i>Cronbach's alpha</i>
VSACA	0.980
AE	0.950
CE	0.951

<i>CS</i>	0.862
<i>BI</i>	0.945

Composite Reliability

Composite Reliability (CR) is another statistical tool to measure the reliability of the scale. Composite reliability (CR) is the statistical tool to measure the internal consistency of the manifest variables of the latent factor. CR is a more robust technique compared to *Cronbach's alpha*. CR is mostly employed to measure the reliability of data while using the advanced techniques like Confirmatory Factor Analysis and Structural Equation Modelling while *Cronbach's alpha* is used in exploratory research techniques like Exploratory Factor Analysis. It is the measure of observed variance in the model compared to the total variance in the model. The current study employs CR measure to measure reliability of the data used for CFA.

While the covariance matrix is used to compute *Cronbach's alpha*, CR is generated based on the standardized regression weights of the manifest variables over the latent factors. CR values of minimum range of 0.6-0.7 are recommended in theory development studies while the range 0.7-0.9 is recommended in empirical and descriptive studies (Nunnally & Bernstein, 1994). CR value of 0.7 and above is recommended for adequate construct reliability (Hair *et al.*, 2010).

The table 5.4.4 details the CR values of the five constructs used in the study. All CR values are above 0.85 implying adequate reliability measures of the five latent constructs considered in the current study.

Table 5.4.4 Composite Reliability (R)

<i>Constructs</i>	Composite Reliability (R)
<i>VSACA</i>	0.979
<i>AE</i>	0.949
<i>CE</i>	0.951
<i>CS</i>	0.862
<i>BI</i>	0.945

Validity Analysis

Validity is the potential of the measurement scale to measure what exactly meant to be measured. Construct validation using empirical data is one of the prime concerns while adopting scales. The adopted scales are validated in Confirmatory Factor Analysis using convergent validity and discriminant validity analysis. Convergent validity refers the converging property of the manifest variables of a single latent construct by forming inner correlation in order to share maximum variance while discriminant validity refers to the discriminating property of manifest variables of a latent factor with another factor's items by forming low correlation (Campbell & Fiske, 1959).

In convergent validity, the covariance within the latent constructs is maximized to increase the shared variance among the observed items. The convergent validity of latent factor is evaluated by comparing Average Variance Extracted (AVE) and Composite Reliability (CR), and Maximum Shared Variance (MSV) values (Fornell & Larcker, 1987).

Average Variance Extracted (AVE) is defined as the quantum of variance explained by the latent factor compared to the error variance. AVE is computed by summation of squared standardized regression weights of the observed items to the corresponding latent factor and dividing it with total variance in the construct which is the sum of squared factor scores + variance explained by measurement error (Fornell & Larcker, 1987). The threshold value of AVE is 0.5 implying that any reported value of AVE more than 0.5 suggests the adequate measure of convergent validity (Kline, 1998)

Maximum Shared Variance (MSV) is the measure of variance of the latent factors. MSV is the squared value of the largest correlation coefficient between the latent constructs. AVE is compared with MSV for construct Validation.

Convergent Validity

In Confirmatory Factor Analysis, convergent validity is measured using the criterion values of AVE, CR and MSV. There is a series of criteria for confirming the convergent validity; “AVE value should be higher than 0.5, CR value should be more than AVE and CR value should be higher than MSV” (Kline, 2014).

The Table 5.4.5 details the AVE, CR and MSV values of each construct considered in the present study. The CR values of all the constructs are above the criterion value (0.7) and AVE values of all the factors are above the threshold value (0.5) and CR values of all the factors are higher than AVE and MSV of the constructs.

Table 5.4.5 (CR, AVE, MSV)

Constructs	CR	AVE	MSV
VSACA	0.980	0.830	0.091
AE	0.950	0.864	0.072
CE	0.951	0.830	0.106
CS	0.863	0.677	0.175
BI	0.945	0.812	0.175

Discriminant Validity

Discriminant Validity is the statistical tool to measure how and to what extent the manifest variables of one latent construct are distinct from the manifest variables of another construct. It is defined as “the degree to which two conceptually similar constructs are distinct from each other” (Hair *et al.*, 2010). This construct validation technique ensures that reflective indicators of a latent factor have low correlations with the items of other factors implying the discriminate feature of items from others. The constructs are validated by comparing the Average Variance Extracted (AVE) values with the variance explained by other constructs. The criterion for measuring the discriminant validity is that “the square root of AVE should be higher than inter item correlations” (Fornell & Larcker, 1987).

The Table 5.4.6 shows the details of square root of AVE and inter-item correlation between the constructs. The bold values in diagonal (Table 5.4.6) are the square root of

AVE. As shown in the table all inter-item correlation coefficients are less than square root of AVE for each construct. The results imply that there is adequate discriminant validity in the scale of constructs used in the current study.

Table 5.4.6 (AVE-Inter Item Correlations)

Constructs	CS	VSACA	AE	CE	BI
CS	0.823				
VSACA	0.301	0.911			
AE	0.235	0.267	0.930		
CE	0.326	0.297	0.269	0.911	
BI	0.418	0.213	0.137	0.162	0.901

Model Fit Indices

Model fit indices in Confirmatory Factor Analysis and Structural Equation Modelling are the measures to assess the conformity between theoretically proposed matrix and observed matrix. Fit indices measure how well the empirically observed matrix reproduces the hypothesized conceptual model. Model fit indices are employed in a way that “higher is the similarity between observed matrix and theoretical matrix, higher will be the fit indices” (Hair *et al.*, 2010). There are mainly three types of model fit indices; Absolute fit indices, incremental fit indices and parsimonious fit indices. Few indices measure the goodness of fit which imply that higher the value of measure, higher is the model fit. Few indices measure badness of fit which imply that lower the value of fit indices, higher is the model fit.

Absolute Fit Indices generate fit indices based on the discrepancies in the data. Absolute fit indices do not compare any specified model with another theoretical model rather it

generates the model fit indices within the data. Absolute fit indices define “how well a priori data fit or reproduce the data” (Schumacker & Lomax, 2004). Normed Chisquare Test (χ^2 / df), Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI), “Root Mean Square Error of Approximation (RMSEA)”, “Root Mean Square Residual (RMR)”, “Standard Root Mean Square Residual (SRMR)” are few examples of Absolute Fit Indices.

Incremental Fit Indices known as comparative fit indices and relative fit indices are measures of indices which compare the observed model with a baseline model. These fit indices assess the observed model with a baseline model or null model which is developed in a way that the items are not correlated with each other (McDonald & Ho, 2002). Fit indices like Normed Fit Index (NFI), Tucker Lewis Index (TLI) and Comparative Fit Index (CFI) are examples of Incremental Fit Indices.

Parsimonious Fit Indices refer to a set of few indices which measure the model fit based on the comparison of complex models and selection of the best model. Parsimonious Normed Fit Index (PNFI) and Parsimonious Goodness of Fit (PGFI) are forms of Parsimonious Fit Indices.

The table 5.4.7 reports the details of fit indices for the current measurement model. All values are within the prescribed limit except p value of the chi-square test. Since the normed chi-square test is highly sensitive to sample size, it is less probable to get the p value more than 0.05 in measurement model evaluation. CMIN/DF is reported to be 1.99, GFI=0.912, AGFI=0.892, CFI=0.980, TLI=0.977, NFI=0.961, PNFI=0.842, RMR=0.038, RFI=0.955, IFI=0.980, RMSEA=0.048 and P close 0.740. The result shows

that the theoretically developed conceptual model has the perfect statistical fit with the empirically observed model.

Table 5.4.7 Model Fit Indices

Fit Indices	Reported Value	Threshold Value
CMIN/DF	1.99	<3 Extremely good, <5 sometimes permissible
P value	0.000	> 0.05
GFI	0.912	> 0.9
AGFI	0.892	> 0.8
CFI	0.980	> 0.9
TLI	0.977	> 0.9
NFI	0.961	> 0.9
PNFI	0.842	> 0.5
RMR	0.038	< 0.08
RFI	0.955	> 0.9
IFI	0.980	> 0.9
RMSEA	0.048	< 0.05
P close	0.740	Close to 1

Common Method Bias

Based on the time frame of data collection, research can be defined as cross-sectional and longitudinal studies. Cross-sectional method involves collection of data from a diverse and heterogeneous set of respondents at a time. Longitudinal study involves collection of data from the same set of respondents at multiple points of time. Though cross-sectional data collection techniques have the benefits like feasibility and practicality, there are some limitations as well. The probability for common method bias is one of such limitations.

Common Method Bias (CMB) is a type of bias where the variation in the data can be attributed to the measurement scale rather than variations in the perceptive dispositions of the respondents. Common Method Bias is caused when both exogenous and endogenous constructs are measured at a time from the respondents as in the case of cross-sectional research designs (Podsakoff *et al.*, 2003). CMB is more probable when the data is collected regarding the latent constructs which have reflective characteristics similar in nature, in similar industry contexts, with similar respondents.

There are different tests to check the prevalence of common method bias in the data. Herman single factor test and common latent factor with marker variable are commonly used methods to test CMB. The present study uses Herman single factor test by running factor analysis by loading all the manifest variables of the latent factors into a single factor and comparing the percentage of total variance explained by the single factor. If the percentage of the variance explained by the single factor is less than 50%, it implies that common method bias is not prevalent in the data (Herman, 1967). The results of

Herman single factor test for the current study are reported in Table 5.4.8. The result shows that the single factor accounts only for 41.21% of the total variance implying that the data considered for the current study is not affected with common method bias.

Table 5.4.8; Herman Single Factor Test

Compon ent	Total Variance Explained			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulativ e %	Total	% of Variance	Cumulativ e %
1	9.892	41.219	41.219	9.892	41.219	41.219
2	3.797	15.821	57.040			
3	3.039	12.662	69.702			
4	2.213	9.221	78.923			
5	1.574	6.560	85.483			
6	.403	1.679	87.162			
7	.343	1.429	88.591			
8	.286	1.192	89.783			
9	.251	1.044	90.827			
10	.226	.944	91.770			
11	.198	.825	92.595			
12	.188	.783	93.379			
13	.175	.729	94.108			
14	.165	.686	94.794			
15	.157	.653	95.447			
16	.149	.621	96.068			
17	.145	.605	96.673			
18	.140	.584	97.257			
19	.132	.551	97.808			
20	.122	.510	98.318			

21	.118	.490	98.808
22	.106	.440	99.248
23	.095	.397	99.645
24	.085	.355	100.000

Extraction Method: Principal Component Analysis.

Structural Equation Modelling

Structural Equation Modelling (SEM) is one of the powerful and advanced multivariate data analysis techniques. SEM is a robust method which has the potential to include the latent constructs in the data analysis. Unlike physical sciences, most of the social science variables known as latent factors or constructs cannot be measured directly, rather it is measured by certain indicators or reflectors called observed items or manifest variables (Teo *et al.*, 2015). SEM has the potential to employ these latent factors in the path modelling analysis. SEM is also known as Latent Variable Analysis and Covariance Structure Analysis.

Structural Equation Modelling is the combination of different multivariate techniques. SEM involves dimension reduction techniques like factor analysis and multiple regressions. SEM is a more powerful technique than multiple regression since it can accommodate direct and indirect effects, interaction effect, measurement error, non-linearity and multi-group effects. SEM is considered as an umbrella term which involves primarily of two models; one measurement model where no causal or directional hypothesis are formed between the latent constructs, rather non-directional covariance hypothesis are formed between the latent constructs which are empirically tested with Confirmatory Factor Analysis. Another model in the SEM is path model or causal model

in which directional regression models are specified based on theoretically proposed hypotheses and are tested using the techniques known as path modelling, causal modelling or analysis of covariance (Kaplan, 2008).

SEM is powerful enough to simultaneously evaluate different sets of dependent, independent and interdependent relationships of latent factors at a time. SEM uses the standard notation of exogenous variables for causing variables and endogenous variables for caused variables. In single measurement model evaluation, SEM can incorporate multiple independent and dependent constructs simultaneously. A dependent variable of a hypothesized relationship can be the independent variable of another hypothesized causal path.

Based on the statistical method to evaluate path model, SEM is classified to;

- Covariance Based Structural Equation Modeling (CB-SEM)
- Partial Least Square Structural Equation Modeling (PLS-SEM)

In Covariance Based Structural Equation Modelling (CB-SEM), the structural model is estimated based on the covariance of the reflective items and latent factors. In Partial Least Square Structural Equation Modelling (PLS-SEM), the structural model is evaluated based on the variance of the reflective items and latent factors. Though both methods differ in estimation technique, two methods act as complementary estimation techniques (Ganesh, 2021).

CB-SEM is recommended when the research design is descriptive in nature which involves conceptually proposing the theoretical models and empirically testing it. When

the research design is exploratory in nature where there is no prior theoretical understanding about the relationships, PLS-SEM is preferred. CB-SEM is heavily dependent on sample characteristics like multivariate normality and sufficient sample size, PLS-SEM is independent of sample distribution or size. If the objective of the researcher is to get better model fit indices CB-SEM is preferred while PLS-SEM is preferred to get maximum value of Coefficient of Determination (R square). While PLS-SEM is capable of dealing with higher order models and latent factors based on formative manifest items, CB-SEM is limited to latent factors with reflective items. Though there are some limitations regarding the formative constructs, CB-SEM is a powerful multivariate technique for theory testing studies where PLS-SEM is not recommended. Since the objective of the current study is to propose a conceptual model based on theoretical support, CB-SEM is selected for the analysis of structural model.

As in the case of Exploratory Factor Analysis, different methods are used to estimate the parameters in Confirmatory Factor Analysis and Path Modelling. Maximum Likelihood Estimation (MLE) is the most popular compared to methods like Generalized Least Squares (GLE), Un-weighted Least Squares (ULE) and Scale-free Least Squares (SLE). MLE is preferred over other estimation methods, since it can generate model fit indices even with a small sample size of 50. MLE estimation is recommended when Likert scale is used as a tool of measurement scale (Breckler, 1990).

The current study uses IBM AMOS 21 to evaluate the measurement and structural model. IBM AMOS is robust software to employ covariance based structural equation modelling which can deal with m complex models and generate better model fit indices compared to other softwares which deal with multivariate techniques. AMOS is capable of employing

almost all multivariate techniques like multiple regression, confirmatory factor analysis, causal modelling and analysis of covariance. It can also incorporate mediation models, moderation models and higher order constructs in the conceptual model.

In order to conduct structural equation modelling, few procedures are to be followed. Firstly, the measurement model is evaluated using confirmatory factor analysis. The results of covariance estimates and model fit indices are discussed in the previous section (Tables 5.4.1 to 5.4.8). Next, the structural model is evaluated using path modelling and the path coefficients are analyzed for accepting or rejecting hypotheses formed. Next, the conceptual and theoretical framework is compared with the observed empirical model and model fit indices are evaluated to investigate how well the observed empirical model conforms to the proposed theoretical model.

Figure 5.3; Structural Model (Unstandardized)

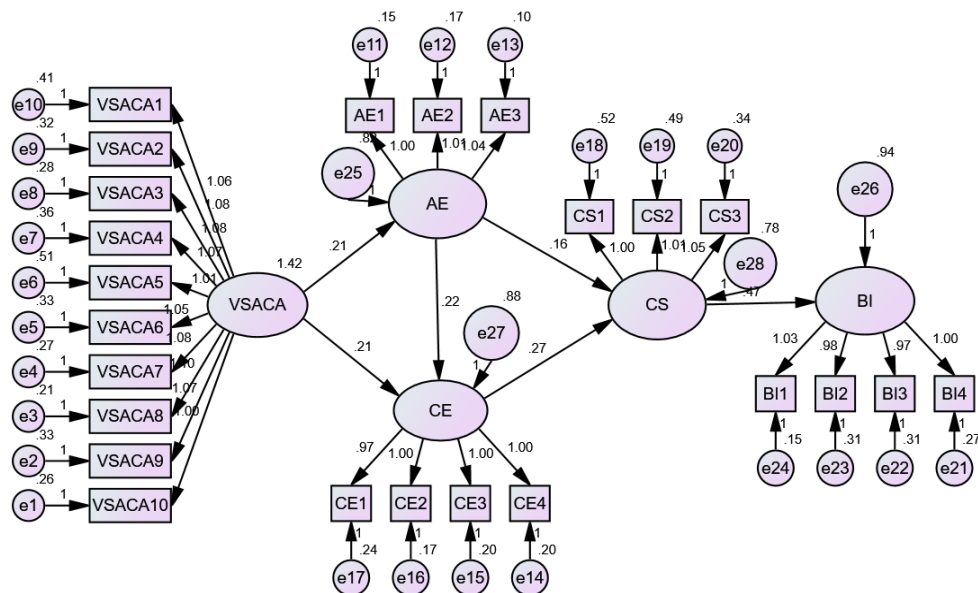
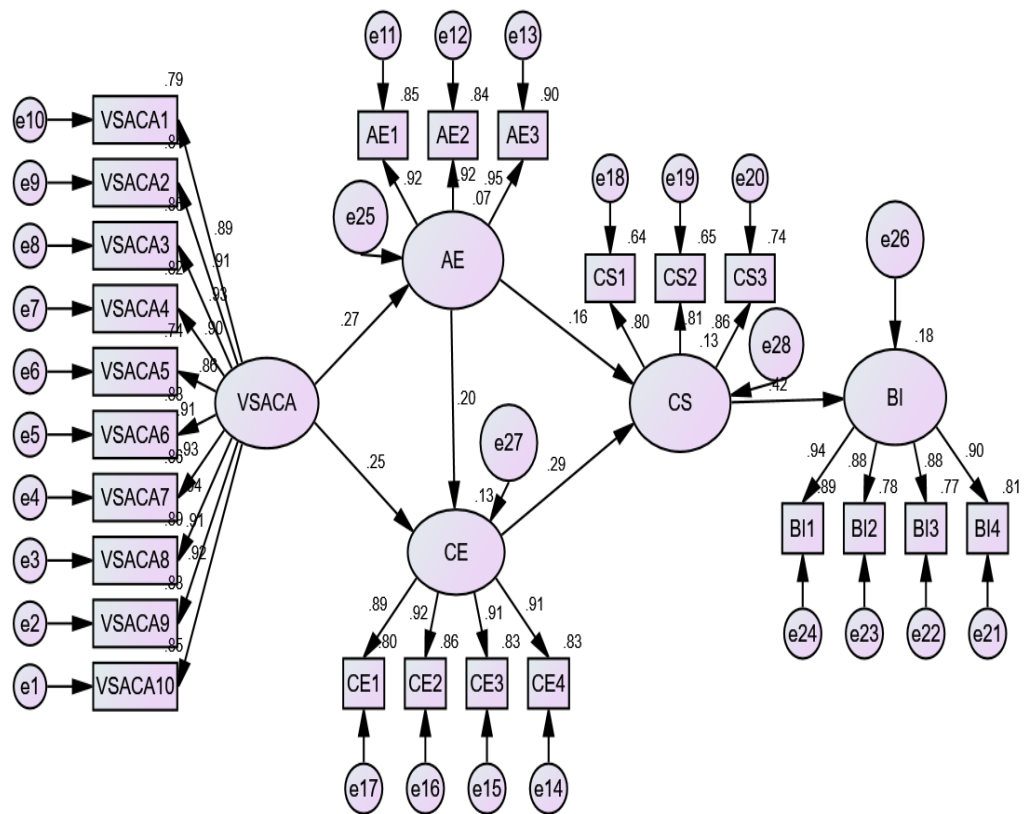


Figure 5.4; Structural Model (Standardized)



The path model is run using Amos 21 and the details of the model fit indices are reported in Table 5.5.1. All fit indices are within the prescribed threshold limit except the P value of Normed Chi-square test (CMIN/DF=2.044, GFI=0.910, AGFI=0.890, CFI=0.979, TLI=0.976, NFI=0.959, RMSEA=0.049). The result of fit indices suggests that the empirical model perfectly fits the theoretically hypothesized conceptual model.

Table 5.5.1 Model Fit Indices (Structural Model)

Fit Indices	Reported Value	Threshold Value
CMIN/DF	2.044	<3 Extremely good, <5 sometimes permissible
P value	0.000	> 0.05
GFI	0.910	> 0.9
AGFI	0.890	> 0.8
CFI	0.979	> 0.9
TLI	0.976	> 0.9
NFI	0.959	> 0.9
PNFI	0.855	> 0.5
RMR	0.011	< 0.08
RFI	0.954	> 0.9
IFI	0.979	> 0.9
RMSEA	0.049	< 0.05

The table 5.5.2 details the path coefficients (β), Critical Ratio values (t statistic), and p values which are used for hypothesis testing. The result shows that all hypothesized relationships are accepted at 0.001 level of significance (***) except the relationship between affective evaluation and customer satisfaction which is significant at 0.01 significance (0.01).

The hypothesized relationship between VSACA and *affective evaluation* is accepted ($\beta=0.212$, t statistic=5.587 and p value=0.000) substantiating the first hypothesis proposed. The results show that VSACA has significant impact on cognitive evaluation ($\beta=0.207$, t statistic=5.041 and p value=0.000) which justifies the second hypothesis formed. It also shows that affective evaluation significantly influences cognitive evaluation ($\beta=0.219$, t statistic=4.142 and p value=0.000) implying the acceptance of the third hypothesis. The fourth hypothesis proposing the relationship between affective evaluation and customer satisfaction is also accepted ($\beta=0.165$, t statistic=3.152 and p value=0.002). The results show that cognitive evaluation significantly predicts customer satisfaction ($\beta=0.269$, t statistic=5.422 and p value=0.000) justifying the fifth hypothesis formed. The causal relationship between customer satisfaction and behavioral intention is also accepted ($\beta=0.473$, t statistic=8.131 and p value=0.000) substantiating the sixth hypothesis proposed. The results of structural model evaluation show that the overall proposed conceptual model is sufficiently ratified by the empirical data.

Table 5.5.2; Results of Hypothesis Testing

Exogenous Constructs	Endogenous Constructs	Hypotheses	Estimate	SE	CR	P Value	Interpretation
VSA CA	AE	H1	.212	.038	5.587	***	<i>Accepted</i>
VSA CA	CE	H2	.207	.041	5.041	***	<i>Accepted</i>
AE	CE	H3	.219	.053	4.142	***	<i>Accepted</i>
AE	CS	H4	.165	.052	3.152	.002	<i>Accepted</i>
CE	CS	H5	.269	.050	5.422	***	<i>Accepted</i>
CS	BI	H6	.473	.058	8.131	***	<i>Accepted</i>

The results of path modelling describe the standardized regression weights between exogenous and endogenous constructs as well as between latent factors and corresponding reflective items of each latent factor. The results suggest that all path coefficients are statistically significant and all reflective items are sufficiently predicting the latent constructs. The details of the standardized regression weights are detailed in Table 5.5.3.

Table; 5.5.3; Standardized Regression Weights

Constructs/Items			Estimate	P value
AE	<---	VSACA	.269	***
CE	<---	VSACA	.245	***

Constructs/Items			Estimate	P value
CE	<---	AE	.204	***
CS	<---	AE	.163	0.002
CS	<---	CE	.286	***
BI	<---	CS	.420	***
VSACA10	<---	VSACA	.920	***
VSACA9	<---	VSACA	.911	***
VSACA8	<---	VSACA	.944	***
VSACA7	<---	VSACA	.928	***
VSACA6	<---	VSACA	.908	***
VSACA5	<---	VSACA	.860	***
VSACA4	<---	VSACA	.905	***
VSACA3	<---	VSACA	.925	***
VSACA2	<---	VSACA	.915	***
VSACA1	<---	VSACA	.890	***
AE1	<---	AE	.924	***
AE2	<---	AE	.916	***
AE3	<---	AE	.949	***
CE4	<---	CE	.913	***
CE3	<---	CE	.913	***
CE2	<---	CE	.925	***
CE1	<---	CE	.893	***
CS1	<---	CS	.797	***
CS2	<---	CS	.806	***
CS3	<---	CS	.862	***

Constructs/Items			Estimate	P value
BI4	<---	BI	.900	***
BI3	<---	BI	.880	***
BI2	<---	BI	.883	***
BI1	<---	BI	.942	***

The results of structural model evaluation revealed the coefficient of determination (R^2) of all the endogenous variables considered in the study. Coefficient of Determination refers to the quantum of variance in the endogenous construct explained by the exogenous constructs in the model. Table 5.5.4 details the R^2 values of all the endogenous constructs in the model.

The results show that 12.8% percentage of the variance in cognitive evaluation is explained by VSACA and 17.29% percentage of the variance in affective evaluation is explained by VSACA. It also shows that 13.49% percentage of variance in customer satisfaction is explained by affective and cognitive evaluations and 17.7% percentage of the variance in behavioral intention is explained by customer satisfaction.

Table; 5.5.4; Coefficient of Determination (R^2)

Endogenous Constructs	Estimated R^2
Affective Evaluation	0.172
Cognitive Evaluation	0.128
Customer Satisfaction	0.134
Behavioral Intentions	0.177

Mediation Analysis

1. Mediation effect of Affective Evaluation on VSACA and Customer Satisfaction

The mediation analysis was conducted using Amos 21. Few procedural steps were followed in order to test the mediation effect. Firstly, the direct relationship between the exogenous and endogenous variable was tested. If this relationship is found statistically significant, the mediating variable is introduced to the model and the relationship between the exogenous and mediating variable is also tested. If this relationship is found significant, the effect of mediating variable on endogenous variable is tested which should be significant in order to prove the mediation effect. Then all three variables are run together and the significance of the indirect effect is assessed.

In the first mediation model the effect of VSACA on customer satisfaction was tested which was found significant ($\beta = 0.303^{***}$). Next, the effect of VSACA was tested on *affective evaluation* which was also found significant ($\beta = 0.166^{***}$) and the impact of *affective evaluation* on customer satisfaction was tested which was found to be significant ($\beta = 0.166^{**}$). Then the mediation model was evaluated using all three variables and standardized regression weights of three causal paths were found significant ($\beta_1 = 0.258$, $\beta_2 = 0.267$, $\beta_3 = 0.166$). Since the effect of VSACA on customer satisfaction was significant even after including the mediating variable of *affective evaluation*, it was found that there is partial mediation effect of affective evaluation between VSACA and customer satisfaction as the indirect effect of VSACA on customer satisfaction through affective evaluation ($\beta \ 0.166 * \beta \ 0.166 = 0.044^{**}$) was found statistically significant. The

details of the direct effects and indirect effects of constructs in the mediation model are reported in the table 5.6.1.

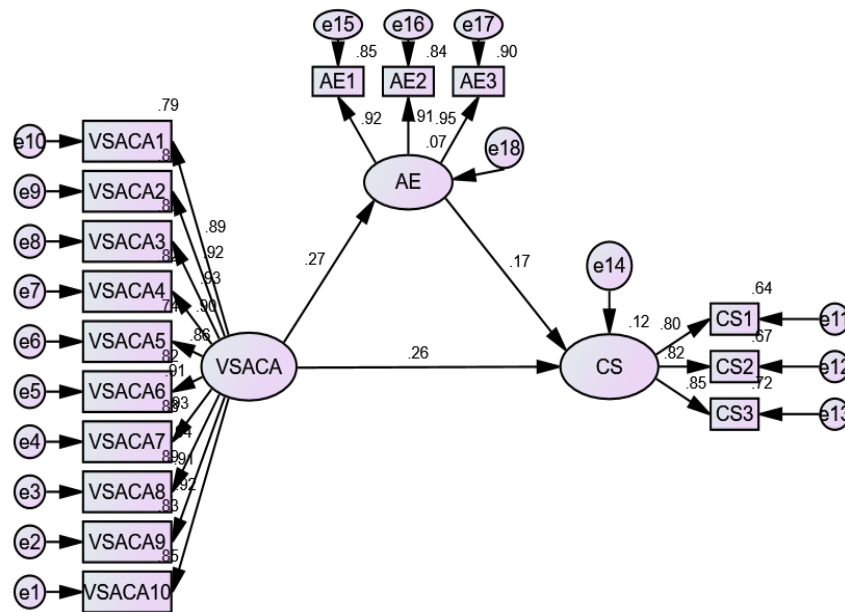
Table 5.6.1; Direct Effects (Mediation Model 1)

Direct Effect	Standardized Beta (β)	SE	CR	P value	Interpretation
VSACA->CS	0.303	0.042	4.953	0.000	Supported
VSACA->AE	0.267	0.038	5.557	0.000	Supported
AE->CS	0.166	0.053	3.174	0.002	Supported

Table 5.6.2; Indirect Effects (Mediation Model 2)

Hypothesis	Indirect Effect	Standardized Beta (β)	ULC	LLC	P value	Interpretation
H7	VSACA->AE->CS	0.044	0.080	0.022	0.004	Supported

Figure 5.6; Mediation Model 1



2. Mediation effect of Cognitive evaluation on VSACA and Customer Satisfaction

To test the second mediation model, effect of VSACA was tested on customer satisfaction which is found significant ($\beta = 0.303^{***}$). Next, the effect of VSACA on cognitive evaluation was tested which was also statistically significant ($\beta = 0.297^{***}$) and the effect of cognitive evaluation on customer satisfaction was also tested and found significant ($\beta = 0.326^{***}$). Once the three prerequisite standardized path coefficients were found significant, the relationship between the exogenous and endogenous variables were run again including the mediating variable in the model. After including the mediating

variable of cognitive evaluation also, all three regression paths were found statistically significant (VSACA -> CS; $\beta = 0.226^{***}$, VSACA -> CE; $\beta = 0.297^{***}$, CE-> CS; $\beta = 0.258^{***}$). Since the exogenous construct was significantly predicting the endogenous variable even after including the mediating variable in the model, partial mediation effect of the mediating variable is confirmed. The hypothesized mediating effect of cognitive evaluation between VSACA and customer satisfaction was ratified by the statistical significance of the indirect effect of VSACA on customer satisfaction. The details of direct effects and indirect effects are discussed in Tables 5.6.3 to 5.6.4.

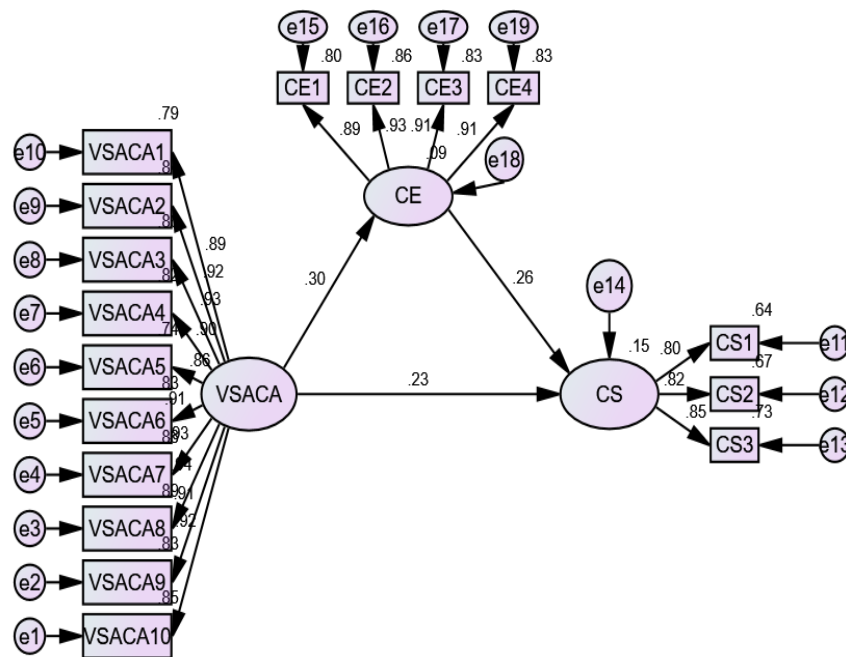
Table 5.6.3; Direct Effects (Mediation Model 2)

Direct Effect	Standardized Beta (β)	SE	CR	P value	Interpretation
VSACA->CS	0.303	0.041	4.375	0.000	Supported
VSACA->CE	0.297	0.039	6.189	0.000	Supported
CE->CS	0.326	0.051	4.911	0.000	Supported

Table 5.6.4; Indirect Effects (Mediation Model 2)

Hypothesis	Indirect Effect	Standardized Beta (β)	ULC	LLC	P value	Interpretation
H7	VSACA->CE->CS	0.061	0.131	0.049	0.005	Supported

Figure 5.7; Mediation Model 2



Conclusion

This chapter discussed in detail the demographic profile of respondents and descriptive measures of scale items of each construct in the conceptual model. It also described the results of EFA, CFA and SEM models considered for the study thus empirically proving the direct and indirect hypothesized relationships considered for the study. The result of the analysis showed that the conceptually proposed model is validated using the empirical data and all hypotheses formed on theoretical grounding are accepted.

Chapter 6

Findings and Discussion

Chapter 6

Findings and Discussion

Relationship between VSACA and Affective Evaluation

The affect and cognition are identified as the abrupt reactions to the aesthetic environmental cues in specific servicescape. Though there is a deep rooted controversy among social psychologists regarding the causal relationship between affect and cognition, there is a general agreement among the psychologists that affective and cognitive responses immediately follow the aesthetic stimuli of the servicescape.

Though the construct of affective dimension is measured in different ways like PAD model (pleasure, arousal and dominance), circular affective model and positive and negative affect, this study measures the overall emotional evaluation process based on dimensions recommended by Oliver (1997). The affective evaluation measured the emotional aspects like whether hotel customers loved the visual appeal of hotel servicescape, whether they liked the overall design of the hotel ambience and whether they were happy about choosing the specific hotel compared to competing options.

The result of empirical analysis shows that customers' VSACA aspect significantly predicted the affective dimensions of the customers in the hotel industry ($\beta=0.212$, t statistic=5.587 and p value=0.000). The empirical result implies that the more visual aesthetic elements are embedded, customers will get more pleasant and delighted feeling about the specific service ambience.

Relationship between VSACA and cognitive evaluation

The second hypothesis proposed in the current study is the effect of customers' VSACA on cognitive evaluation. Cognitive evaluation is also considered as the immediate responses to visual servicescape aesthetics. The concept of cognition has been explained in different ways in behavioral studies. Cognition has been defined as the perceived value while purchasing a product or consuming a service. It has been understood as the cost benefit analysis by which the customer compares the benefit accrued with costs incurred. Few studies conceptualize cognition as assessing the financial worth of a product or service through conscious judgment.

The current study has conceptualized the cognitive evaluation as the overall judgment of the customer comparing the benefits and cost of the hospitality service. It also takes into account the service image delivered and the value of the service. The study empirically tested the relationship between customers' VSACA and cognitive evaluation and the relationship was found statistically significant ($\beta=0.207$, t statistic=5.041 and p value=0.000).

The result of empirical analysis implies that the aesthetic stimuli in hospitality servicescape trigger the cognitive evaluation process by which the customers compare benefits accrued with the costs incurred based on the theoretical model of disconfirmation. Results suggest that when more visual aesthetic elements are induced in the hotel service environment, the chance to form a positive impression and positive perceived value is enhanced which will lead to favourable behavioral responses of the hotel customers.

Relationship between affective and cognitive evaluations

The causal relationship between affect and cognition is always a subject matter of controversy among social psychologists. There are mainly two schools of thought in this deep rooted controversy; the first school argues that affect is the cause and cognition is the effect. The current study has adopted this stream of argument and conceptually hypothesized that affect significantly impacts the cognition. The second school argues that cognition precedes affect and affect is the function of cognition. Both arguments have theoretical and logical models which substantiate the line of the argument.

Both streams of arguments are based on solid theoretical and logical grounding. Those who argue that affect caused cognition substantiates the relationship with support of a psychological phenomenon called *affect heuristic*. Social psychologists argue that a psychological process called attribute substitution is also supporting this relationship. The causal relationship between two is reaffirmed with the help of many experiments which proved that affect precedes cognition.

The other stream of argument argues that cognition is the instantaneous effect of the environmental stimuli and affect follows cognition. The argument is substantiated by the psychological models like misattribution of arousal, framing effects, self-regulation and self-efficacy. This causal model is also proved with the help of some experiments by which the psychologists could prove cognition predicts the level of affective dimensions.

The current study adopted the first argument based on the intuition of the researcher that the psychological explanations which support the first argument excel than the other line of arguments. The study theoretically hypothesized this relationship and empirically

tested it. The results show that affective dimensions significantly predict the cognitive responses in the hotel industry ($\beta=0.219$, t statistic=4.142 and p value=0.000). The results reaffirm that affect causally precedes cognitive dimensions. The result implies that hotel service ambience should be designed including visual aesthetic attributes which will lead to positive cognitive and affective evaluations.

Relationship between affective, cognitive evaluations and customer satisfaction

The fourth hypothesis was proposed that affective evaluation leads to customer satisfaction and the fifth hypothesis was proposed between cognitive evaluation and customer satisfaction. The review of literature in servicescape and aesthetics revealed that affective and cognitive responses follow the service environmental stimuli which will influence the psychological and behavioral schema of the customers.

Several studies state that level of cognitive and affective evaluation is the prime predictor and contributor of customer satisfaction. Studies found that the affective states like delight, pleasure, and excitement decides the level of customer satisfaction. The cognition is understood as the disconfirmation model by which customers compare the benefits of the perceived experience with expected outcome. If the perceived experience is at par or above the expected outcome, it will lead to positive and favourable psychological schema like customer satisfaction.

The result of the empirical analysis shows that affective and cognitive evaluation significantly predict the level of satisfaction of the customers in hospitality industry accepted ($\beta_1=0.165$, t statistic=3.152 and p value=0.002, $\beta_2=0.269$, t statistic=5.422 and p value=0.000). The result implies that servicescape of the hotels should be designed in a

way which will arouse positive affective and cognitive states by which customers' satisfaction level also can be enhanced. The effect of visual aesthetic elements play a crucial role in built service environments like hospitality industry, restaurant industry and retail industry rather than natural servicescapes.

Relationship between customer satisfaction and behavioral intentions

The review of extant literature revealed that customer satisfaction significantly predicts the behavioral intentions of the customers in diverse industry circumstances. Behavioral intentions include the post consumption schema of the customers like repurchase, word of mouth, loyalty and recommendation. Several studies prove that a happy customer is very unlikely to spread negative word of mouth and the level of satisfaction decides the magnitude of revisit and repurchase.

Though many other factors like service quality, perceived value, customer trust, brand image and other dimensions of products and services are described as preceding behavioral intentions, customer satisfaction has been reaffirmed as the prime predictor of it in most of the marketing studies considering behavioral dimensions. Most of the studies in the hospitality sector argue that service firm's capability to exceed the expectation of the customer about the service outcome is the prime factor which determines the firm's existence in the industry.

The behavioral intentions are measured in different ways in the marketing literature. This study has conceptualized the behavioral intention in two dimensions. The first dimension is the willingness of repurchase and the second one is the intention of positive recommendation. The result of the analysis shows that the theoretical hypothesis

proposed is accepted ($\beta=0.473$, t statistic=8.131 and p value=0.000). The result implies that the hospitality service firms should strive to increase the satisfaction level of customers by incorporating more visual aesthetic elements in the service environment by which customers will be inclined towards positive behavioral intentions.

Mediating effects of affective and cognitive evaluations

Affective and cognitive evaluations were considered as the potential mediators between visual servicescape aesthetics and customer satisfaction. Several studies have proved that emotion has the ability to change the way of response and behavior. The disconfirmation model which elaborates the dimensions of cognitive evaluation explains the relationship between aesthetic attributes of service environment and customer satisfaction.

The affective and cognitive dimensions have a major role in determining the level of happiness in the hotel industry. The dimensions of aesthetics are a decisive factor in determining the emotional and cognitive states of customers especially in built servicescapes like hotels. The current study proposed affective and cognitive evaluations as the mediating variables between VSACA construct and customer satisfaction in the proposed model. Few studies have considered dimensions of affect like pleasure and arousal and dimension of cognition like perceived value as the mediators between aesthetic attributes and customer satisfaction.

The result of the analysis shows that both the hypothesis of mediating effects is accepted with statistical significance. (Indirect effect of affective evaluation = 0.04, and p value=0.004, Indirect effect of cognitive evaluation = 0.06, and p value=0.005). The empirical analysis reaffirms the theoretically proposed potential mediating power of the

affective and cognitive states. The result implies that servicescape developers should focus more on designing visually appealing environments for hotel industry which will arouse the positive emotional dimensions and cognitive judgments which will subsequently lead to the benefits like customer satisfaction, re-patronage, and positive recommendation.

Theoretical Contributions of the Study

The current study is based on descriptive design of research method which primarily tests the theoretical propositions. The conceptual framework developed for the study is based on different theoretical backgrounds. The current study aimed to prove these theoretically framed propositions based on empirical data. The study proposed the conceptual model based on the theories like consumption values, cue utilization, elaboration model, gestalt model, SOR model and environmental psychological models.

The result of the analysis empirically reaffirms the theoretical implications of all these models. The results confirm the assumptions of theory of consumption values that the value adding elements in the product or service environment affect the decision making process of the customer. The findings also support the cue utilization theory also. This theory states every product or service is encompassed by a number of cues and the acumen is responsible for processing these cues which will lead to subsequent customer responses. The theory reaffirms the application of cue utilization theory in hospitality context.

The findings also support the persuasive argument of Elaboration Likelihood Model. This model states that in many circumstances, customers will act as cognitive misers and will

rely on convenient cues available in the servicescape. Another theory called heuristic systematic model is also similar to elaborative model which supports the claim that customers seek short cut methods to arrive at a final conclusion. The current study empirically confirms these assumptions as the visual aesthetic stimuli are understood as the heuristics or peripheral route of persuasion.

The principle of Gestalt is also supported by the current study. The gestalt psychological model states that humans by nature have a tendency to evaluate the environment as a whole and not as a group of fragments. This supports the notion that customers prefer holistic perception regarding the environment rather than the individualistic and specific dimensions of the servicescape. This is in accordance with the subjective conceptualization of visual aesthetic stimuli instead of an objective way of identifying the individual attributes.

The psychological model of field theory was also used to conceptualize VSACA and its subsequent effects. The field theory states that individuals cannot be separated from the co-existing environment and humans are always affected by this environment. The study empirically validates the notion that customers are greatly influenced by the environmental stimuli in the hospitality service environment.

The study empirically validates the psychological model of stimulus-organism-response. This model is advancement over the stimulus-response model. This model is conducive to explain the mediation effects of affective and cognitive evaluations considered in the study. Visual aesthetic elements are considered as the stimulus and affective and cognitive evaluations are organisms and customer satisfaction is the response of the

organism. The empirical model reaffirms that whenever visual aesthetics are embedded in servicescape, it will lead to affective and cognitive evaluations and subsequently to customer satisfaction and behavioral intentions.

The study confirms the propositions of environmental psychological models considered in the study. These models deal with how the environmental stimuli cause the outcomes like customer satisfaction and behavioral intentions. The environmental psychological models are also instrumental to conceptualize the visual servicescape aesthetics in a subjective and holistic manner. Most of the aesthetic studies in marketing literature have conceptualized it in an objective manner by identifying few individual dimensions. The result of the analysis validates the subjective conceptualization of VSACA based on the assumptions of environmental psychological models.

Practical Implications of the Study

The findings of the study convey a lot of managerial and practical implications in the hospitality industry. The study confirms the notion that customers evaluate the service environment mostly in a holistic way rather than identifying the individual and fragmented aesthetic elements. The designers of hotel servicescape should focus on more aesthetic elements to be included in the service environment. The design of the hotel servicescape should be visually appealing and attractive.

The study proposes that hotel servicescape should contain the aesthetic elements like attractive design elements, artefacts, visually enchanting colours and state of the art facilities. The study empirically proves that designing the hotel servicescape with full of

visual aesthetics stimuli creates a number of competitive advantages for the service firm in the form of customer satisfaction, loyalty and positive recommendations.

The study proves that hospitality servicescape should be incorporated with awe inspiring artwork, iconic design and other visually charming elements in order to enhance the customers' affective and cognitive evaluation. The study confirms that hospitality service may concentrate more on aesthetic aspects rather than including expensive and complex servicescape designs. Hotel servicescape can be made visually appealing by including novel or exotic visual treats which will attract the customers at the first instance.

The result of the study also implies that by including visual aesthetic elements, service firms can accrue many economic and strategic benefits in the long term as the study empirically tested the effect of these elements with post-consumption behavior of the customers like re-patronage, revisit, positive word of mouth and recommendation.

Limitations and Suggestions for Future Research

Though this study empirically validated the theoretical and conceptual model in the hotel industry, there are some limitations for the study as well. The study adopted a non-probabilistic sampling method of convenience sampling to collect the responses which is a statistical limitation to generalize the results. The study adopted this method since getting the comprehensive list of hotel customers was almost improbable.

Another limitation is that the study conceptualized visual servicescape aesthetics in a subjective and holistic way. The effect of individual and specific aesthetic attributes is not considered in this study. Majority of the literature in servicescape and aesthetics is based on the objective conceptualization which examines the effect of individual

attributes. The study also didn't consider the effect of non-aesthetic servicescape attributes which affect the customer responses in the servicescape. The current study has considered only the visual dimension of aesthetics in the hotel servicescape. The study considered how customers evaluate the overall visual aesthetic stimuli in hotel servicescape in a holistic way.

Future research can be done including the non-visual aesthetic attributes like auditory, olfactory and kinaesthetic elements in the servicescape. Research can be generalized in other industries like retail, dining and other built environments. The conceptual model can be tested across different countries and cultures.

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Appendix 1

Questionnaire

Dear Sir/Madam,

I, Rasheed K, am a doctoral research scholar at School of Management Studies, University of Hyderabad conducting a research on “*Impact of Visual Servicescape Aesthetics Comprehension and Appreciation on Affective and Cognitive Evaluations, Customer Satisfaction and Behavioral Intentions; A Study of Premium Hotels in India*”.

As a part of this research project, I am requesting you to spare few minutes for filling the following questionnaire.

While answering the questionnaire please note that:

- Your answers are *strictly confidential* and intended for academic research only– study results will simply be exhibited in aggregate form.
- Your contribution toward the successful outcome of this study is invaluable; please answer all questions as honestly as possible.
- There is no right or wrong answer, please just answer according to your opinion.

Part A (Demographic Profile)

Name:

Gender:

Age in Years:

Educational Qualification:

Monthly Income:

Part B (VSACA)

Please tick any of the following options;

VSACA1; “*Staying at hotels that have superior designs make me feel good about myself*”

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

VSACA2; *“I enjoy seeing displays of artefacts that have superior designs”*

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

VSACA3; *“I enjoy seeing displays of artefacts that have superior designs”*

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

VSACA4; *“Being able to see subtle difference in hotel servicescape designs is one skill that I have developed over time”*

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

VSACA5; *“I see things in a servicescape’s design that other people tend to pass over”*

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

VSACA6; *“I have the ability to imagine how a product will fit in with designs of other things I already own”*

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

VSACA7; *“I have a pretty good idea of what makes one hotel look better than its competitors”*

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

VSACA8; *“Sometimes the way a hotel looks seems to reach out and grab me”*

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

VSACA9; *“If a hotel’s interior design really “speaks” to me, I feel that I must stay at that hotel”*

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

VSACA10; *“When I see a servicescape that has a really great design, I feel a strong urge to patronage”*

1. Strongly disagree
2. Disagree

3. Neutral
4. Agree
5. Strongly agree

Part C (Affective & Cognitive Evaluations)

Affective Evaluation

AE1; "I like this hotel more than other hotels"

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

AE2; "I am happy about my decision to stay at this hotel"

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

AE3; "I love staying at this hotel"

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Cognitive Evaluation

CE1; "This hotel offers good value for the price"

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree

5. Strongly agree

CE2; “This hotel provides a good deal compared to others”

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

CE3; “My overall image of this hotel is positive”

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

CE4; “Overall, I have a good image of this hotel”

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Part D (Customer Satisfaction & Behavioral Intentions)

Customer Satisfaction

CS1; “Overall, I am satisfied with my experience when staying at this hotel”

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

CS2; "Overall, compared to other hotel, I am satisfied with this hotel"

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

CS3; "My decision to choose this hotel was a wise one"

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Behavioral Intentions

BI1; "I plan to stay at this hotel when I travel in the future"

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

BI2; "I am willing to stay at this hotel again in the future,"

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

BI3; "I will encourage other people to choose this hotel"

1. Strongly disagree
2. Disagree

3. Neutral
4. Agree
5. Strongly agree

BI4; “If someone wants to choose a hotel, I will suggest he/she choose this hotel”

1. Strongly disagree
2. Disagree
3. Neutral
4. Agree
5. Strongly agree

Any other comments:

.....

.....

.....

Thank You for Your Response

Appendix 2



Rasheed Kr <abdurrasheedkr@gmail.com>

Acceptance letter

1 message

Amit Sharma <prof.amitsharma84@gmail.com>

Fri, Nov 18, 2022 at 11:44 AM

To: Rasheed Kr <abdurrasheedkr@gmail.com>

Dear Sir

It is to inform you that your paper submitted to ABDC Listed C Category Journal
World Journal of Management & Economics has been accepted for publication in the issue of September 2022.

Title

**Effect of Visual Servicescape Aesthetics Comprehension and Appreciation on Affective and
Cognitive Evaluations, Satisfaction and Behavioral Intentions; an Empirical Analysis**

Regards:

Dr. Amit Sharma
Lead Editor
September issue, 2022.
[Home - WJMEC \(wesro.org\)](http://wesro.org)



Appendix 4



Impact of Visual Servicescape Aesthetics on Cognitive & Affective Evaluations, Satisfaction and Behavioral Intentions; A Study of Premium Hotels in India

by Rasheed K

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