



Research article

The role of aesthetics in tourist satisfaction in the Ghanaian hospitality industry

Ernest E. Tulasi^{a,*}, Oliver E. Ashiaby^b, Prince Kodua^b, Bright Ahlijah^a, Matthew Opoku Agyeman-Duah^a

^a Ho Technical University, Department of Marketing, Ghana

^b University of Ghana Business School, Department of Marketing and Entrepreneurship, Ghana

ARTICLE INFO

Keywords:

Visual product aesthetics
Taste aesthetics
Package aesthetics
Tourist satisfaction
Hospitality industry

ABSTRACT

Purpose: The study examines the role of aesthetics in tourist satisfaction in the Ghanaian hospitality industry.

Design/methodology/approach: The study is quantitative and cross-sectional in nature. A total of 5 tourist destinations and 350 tourists were selected using purposive sampling technique. Data for the study was gathered using self-reported questionnaires and analysed using Statistical Package for Social Sciences (SPSS). A total of 300 retrieved questionnaires representing 85.7 % of response rate was used for data analysis.

Findings: The study results proved that the three main types of aesthetics that influence tourists' visitation to tourist destinations are visual product aesthetics, package aesthetics and taste aesthetics. The study also discovered that visual product aesthetics, package aesthetics and taste aesthetics had significant positive correlations with tourist satisfaction. Again, the results established that, aesthetic types (visual product aesthetics and package aesthetics) have significant positive impact on tourists' satisfaction whereas taste aesthetics has a negative effect on tourists' satisfaction.

Research limitations/implications: The Ghanaian hospitality sector should push creativity to new heights by ensuring that venues change their appearance and ambiance through the use of creative lights, music, and food setups, so as to often attract consumers and offer them a completely unique experience each time. The hospitality sector also need to provide more effective and dependable channels for user complaints, recommendations, and contributions, as well as consumer feedback systems.

Originality/value: The study adds to literature on aesthetics and tourist satisfaction as well as contributes to the agenda towards tourist destination sustainability.

1. Introduction

Aesthetics play a very crucial role in our lives as consumers and to a large extent significantly influence our level of satisfaction [1,2,3]. On a daily basis and transitional, consumer decisions are made in large magnitudes and scopes now based on automatic reactions

* Corresponding author.

E-mail addresses: etulasi@htu.edu.gh (E.E. Tulasi), Oashiaby@gmail.com (O.E. Ashiaby), Pkodua@ug.edu.gh (P. Kodua), bahlijah@htu.edu.gh (B. Ahlijah), magyemanduah@htu.edu.gh (M.O. Agyeman-Duah).

<https://doi.org/10.1016/j.heliyon.2024.e32944>

Received 1 February 2024; Received in revised form 6 June 2024; Accepted 12 June 2024

Available online 13 June 2024

2405-8440/© 2024 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC license (<http://creativecommons.org/licenses/by-nc/4.0/>).

to aesthetically appealing objects or product offerings [4,5,6,7]. This spans across a wide range of product offerings like automobiles, fashion, food, real estate, mobile phones, computers, home appliances and many more [8,9]. As described by Ref. [10], aesthetics is a set of principles related to nature and the sense of beauty. Interestingly, aesthetics has drawn attention from academics, researchers, and philosophers for many years [11,12]. The prehistoric theorists acknowledged aesthetics to be a cradle of utter joy and pleasure, which accounted for the concept of aesthetics being studied in diverse fields [13]. The fascinating, attractive, and comfortable qualities of a particular design are linked to aesthetic appeals, which is associated with self-satisfaction [14].

Often times, the choices made by consumers largely depend on the things they can visibly see externally [15]. Generally, customers' affinity for beauty is echoed in our activities and is recurrently inherent [16]. Aesthetic reflections are inescapable and forms an integral part of our daily lives, which includes our consumption of goods and services. Invariably, consumers' choices are also influenced by the aesthetic features of particular products and services [17].

The hospitality industry is experiencing various changes in a highly competitive business environment [18], with modern consumers becoming aware and conscious of the physical beauty of the environment in the industry. The aesthetic nature of the hospitality industry's environment attracts consumers and give them some level of satisfaction [18]. Consumer buying behaviour has gained much attention in hospitality research and studies have revealed that, a good aesthetic experience of consumers would increase their satisfaction levels resulting in repeat visit or purchase [18]. Additionally, consumers' poor attitude towards the hospitality industry is fundamentally caused by the poor physical setting of the products and services [19]. In that regard, the physical setting which is normally referred to as "servicescape" or "atmosphere" comprises of designs, decorations, layout, ambience, signs, and symbols [19].

Many economies today rely heavily on tourism, which has also helped increase the Gross Domestic Product (GDP) of many countries' [20]. According to Refs. [21,20], the growth of tourism supports jobs, income, tourism businesses, and government revenues in the destinations. The development of tourism services depend on knowing how to get visitors to revisit a destination. In that regard [21], claimed that satisfaction is a multidimensional concept that becomes more complex when the location is a destination as opposed to an individual service provider. Within the tourism literature, a destination's aesthetic qualities are frequently employed as a gauge for visitor satisfaction [21]. According to Ref. [22], the degree of tourist satisfaction has been measured by looking at destination features including peaceful, quiet, clean and hygienic environment as well as a balance between commercial development and visitor appraisals of aesthetics. This suggests that certain aesthetic qualities of a place are fundamental aspects of measuring satisfaction.

Over the years, studies have been conducted to understand the concept of aesthetics in diverse fields of study such as marketing, advertising, education, and tourism [23,24,25], testing so many different constructs so as to offer a better explanation of the role aesthetics play in these areas. Aesthetic appeals vary within different cultures around the world which invariably influences the tourist choice for certain goods and services [26]. The aesthetical environment therefore plays an important role with regards to tourist satisfaction and also stimulates concentration in a particular atmosphere for quite a period of time [27,20].

Additionally, previous scholars [28,27,29] have all paid attention to physical environments of players in the hospitality industry. For instance Ref. [28], argued that, tourist satisfaction in the hospitality industry is underlined by the harmony among the quality of products and services offered, employees' behaviour and attitudes, physical, mental, spatial and environmental dimensions. However, the important role aesthetics plays in the hospitality industry has not been sufficiently studied. Most of the studies regarding aesthetic have been carried out on websites or online shopping platforms [29], apparel manufacturing sectors [30] while the hospitality industry have been neglected. Furthermore, the majority of previous researches have been undertaken in developed countries [28,27,30,31,29].

In particular, these studies have been confined to skewed areas of the hospitality sector such as aesthetics of a hotels' websites [32], plantations [33], aesthetic labour [28,34], as well as visual servicescape [34,35,36]. Additionally, these scholars have only concentrated on service aesthetics that considered sparse areas by commonly focusing on a single context such as restaurants, hotels or attractions [37,38,34,39]. This has resulted in a lack of deeper understanding of how aesthetic appeals can be applied in varied contexts in the hospitality sector especially among hotels as prior literature commonly lacks an in-depth explanation of the entire aesthetics inquiry [38,40,41]. Accordingly, the present research findings are confined to limited aspects of the fuller aesthetics domain of interest [31].

In the Ghanaian context, [42] indicated that technological innovations in star-rated hotels found that most of the smaller hotels eventually foldup due to a decline in innovative ideas that enhance patronage as a result of inadequate aesthetic appeals as compared to the bigger ones. This means that innovation is key in ensuring that some aesthetic elements which results in hotels providing the best products, services and processes exist to spice up tourist satisfaction in hotel patronage [43]. Among hotels in Ghana, service delivery is generally seen to be below expectations due to poor infrastructure, inadequate investment and lack of skilled personnel [44], thus innovation among the various categories of hotels is key in improving the aesthetic elements. Additionally, [45] argues that since the service industry is people oriented and produce intangible elements, the attitudes, practices and procedures of employees at work should be innovation driven in order to ensure tourists' satisfaction.

These developments revealed that much research has not been done regarding aesthetics in the tourism sector in developing countries such as Africa, and particularly Ghana. Therefore [46], proposed a further understanding of how Ghanaian hotels can leverage their innovative capabilities and how these factors can influence their willingness to be innovative in inculcating aesthetics in order to guarantee tourists' satisfaction.

Therefore, the aim of the study is to appreciate the role of aesthetics in tourist satisfaction in the Ghanaian hospitality industry. Specifically, the study seeks to achieve the following objectives:

1. To examine the aesthetic types in the Ghanaian Hospitality Industry.

2. To assess the relationship between aesthetic types (visual product aesthetics, package aesthetics and taste aesthetics) and tourist satisfaction.
3. To examine the effect of aesthetic types (visual product aesthetics, package aesthetics and taste aesthetics) on tourist satisfaction.

2. Literature review

2.1. Concept of aesthetic

Creating emotions that convey meaning without using words is the art of aesthetics, which is one of the most important ways to make the world unique [47]. Ideas created in the modern era for European art served as a major inspiration for the concept of aesthetics that has long been applied to the study of ancient Mesopotamian artefacts [48,49]. Aesthetics is often understood as an attempt to describe the principles governing nature and appreciation of beauty and artistic taste, not only emphasizing the role of the viewer but also referring to a specific realm of the senses, which is taste [49]. Accordingly [47], asserts that the concept of aesthetics has a role to play in the success of brands and companies. Aesthetic designs and arts contribute to the marketing activity by strategically positioning destinations [50]. Understanding aesthetics and the position of art in destinations is necessary to comprehend the functions of design more thoroughly.

2.2. Visual product aesthetics

Through product differentiation, superior aesthetics allow a business to gain a competitive edge [51]. This is because, consumers find highly attractive products to be captivating, and they heavily consider appearance while making decisions. For [52], well-regarded research demonstrates and highlights the importance of designs in consumers' judgements of products. Every company aims to produce the perfect product, and according to Ref. [52], the holy grail of product design might be attained by producing a design that is regarded as being better than that of its competitors. Additionally, the design of the product ought to inspire favourable attitudes, feelings, and reactions in prospective consumers. Nowadays, a lot of individuals pay closer attention to a product's symbolic significance [53]. If a product design incorporates specific design elements like colour, shape, etc., consumers are more likely to find it aesthetically pleasing [47]. Aesthetics of product is a valuable element because many consumers purchase not only a product but also value and experience. Ideas on the sensory character of the products typically have a foundational relationship with the concept of visual product aesthetics [47]. This adds to the fact that, one of the most significant variables influencing consumer perception in a variety of ways is visual aesthetics. A product with an exceptional design can stand out from the competition and have an impact on the market [54,55].

Additionally, product design has a favourable impact on an individual's quality of life [56,57]. Visual aesthetics therefore play symbolic significance that influence how a product is evaluated. According to Ref. [56], consumers that prioritize aesthetics above other considerations may be more likely to be visual in their choosing process.

2.3. Package aesthetics

Perception regarding products is not limited to the aesthetics of the product itself, but its packaging as well because the package serves as the product's visual representation [58]. Before consumers can use a particular product, they have to deal with its packaging first. In that respect [58], is of the view that businesses work hard to safeguard their packaging designs and logos since they are strongly linked to their brands. Consumer behaviour can therefore be greatly influenced by package designs [59]. Additionally [60], avers that tourists like unknown brands with more visually appealing packaging than well-known ones with less appealing packaging. This explains why people prefer products with high package aesthetics over others that do not which is based on the activation of the reward system in the brain attributed to beauty [60]. It could seem that customers would select rather varied colours for their products, nonetheless, the majority of consumers will opt to stay very close to the product's initial colour scheme [61].

2.4. Taste aesthetics

Hedonic facets in consumer behaviour, are associated with the "multisensory, fantasy and emotive aspects" of an individual's consumption experience [62]. Aesthetics and taste are included in this hedonistic part of consumerism [63,62]. According to Ref. [62], individual preferences influence the neighbourhoods people choose, the way their homes are decorated, the clothes they wear, the appliances they choose, and the cars they purchase. Marketing and tourism both heavily rely on an understanding of consumer behaviour, which includes taste characteristics. "Good taste" in consumer behaviour has been characterised as that which is prescribed by experts in a specific cultural sector, and the question of whether regular consumers possess good taste has been raised [64]. Here, taste is not thought to have a positive connotation; hence, the word "good" is added to give it a direction [62]. Similarly, taste is said to be connected to an individual's sense of aesthetics in psychological aesthetics because aesthetics is regarded as a virtue that is connected to beauty in some way. According to Ref. [65], those who possess an aesthetic sense are characterised by their more sophisticated preferences regarding the design of things and, very generally, as having superior consumer preferences. Thus, a consumer's preference contributes to the creation of hedonic value for a good or service with the antecedents of taste related to perception, judgement, and aesthetic experience in different disciplines' streams of thinking [66].

2.5. Tourist destinations

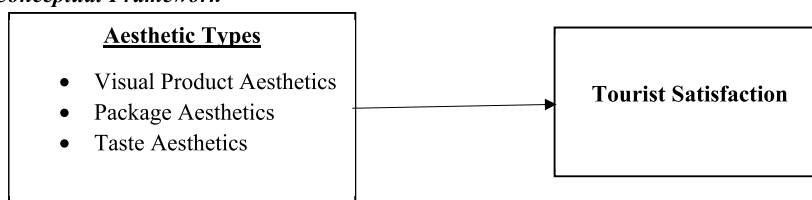
The tourism industry has expanded rapidly in recent years, and its significance to countries, regions, towns, cities, and particularly destinations cannot be understated. The term “overtourism” has emerged recently due to the unstoppable rise in domestic and international travels [67,52,68,69]. Many destinations worldwide have long suffered from overtourism, though in its modern form it is most commonly linked to city tourism and the rise of anti-tourism sentiments in the local community. The ability of a destination to compete favourably in the global tourism market is crucial for gaining and maintaining a competitive advantage [70,71]. Competitiveness is a real concept for tourism managers, industry players, and tourism destinations. To stay ahead of the competition, these destinations must develop competitive strategies, or ways to compete in the global market [70]. The management of these destinations is also crucial to understanding the tourism industry [72].

2.6. Tourist satisfaction

Customer satisfaction is a measure of an individual’s perception of any product or service’s performance based on their expectations [73,74]. According to Ref. [75], an individual becomes satisfied when their expectations before any business transaction are fulfilled, but dissatisfaction sets in when expectations are not met. The concept of satisfaction is diverse and becomes more when there are several service providers present at the destination, as opposed to individual service providers [21]. According to Ref. [76], overall satisfaction is the individual’s subjective assessment of their consumption based on every aspect of their experiences, including their lodging, activities, attractions, and meals. Marketers view satisfaction as post-purchase conduct, and since it affects recurring business and word-of-mouth referrals, this behaviour is strategically significant to companies [77]. Furthermore, it is commonly known in the literature on tourism that a destination’s aesthetic qualities are frequently utilised as a measure for tourists’ satisfaction [20], thus certain aesthetic qualities of a destination are underlying factors attributed to satisfaction [76].

2.7. Conceptual framework

Conceptual Framework



2.7.1. Visual product aesthetics and tourist satisfaction

Prior research has investigated the impact of package and visual product aesthetics on tourists’ satisfaction [58,51,47,65]. It is thought that more favourable and positive perceptions of the various aesthetics will increase the likelihood that they will be taken into account when choosing a trip and increase tourists’ satisfaction. For example, there are set of rules that guide how food should be presented. Culinary aesthetics is therefore more like a discipline in order to present food in an aesthetically pleasing and acceptable manner [78]. Thus, in this context, the definition of aesthetics includes the appreciation of foods’ visual appeal [79]. This suggests that individuals’ subjective assessments of the aesthetic value of food differ. People from different origins and cultures often have varied perspectives on food, and this is often due to factors such as their own cultural experiences, personal histories, and the kinds of meals that are accessible in their communities [64].

Visual aesthetics perform better assessment when individuals’ preferences are taken into consideration throughout the assessment process [80]. In that respect, virtual reality, which is an advanced technology that is thought to be more cost-effective for forecasting future effects on the natural environment, has been utilised to measure the general perception of visual aesthetics [81]. Perception-based visual aesthetic evaluation has always been highly reliable. The findings obtained from this method are more important than the findings of a single individual [81]. The perception-based method has also made use of perceived visual quality elements like visibility, complexity, coherence, and mystery as well as emotional reactions like attentiveness and stress-reduction [12].

2.7.2. Package aesthetics and tourist satisfaction

Generally, packaging design is made of three main elements which are the brand concept, the characteristics of the product and the psychology of consumers, which positively impact the love consumers have for the product and the intention to repurchase these products [82]. In that regard, product packaging is seen as a major link in improving communication between an enterprise and its customers. Some studies have reiterated the importance of package design which is a key element of aesthetics since it is seen as an important source of commercially viable platforms [83,84]. This means that package design is regarded as a foundation for firms to implement their strategies and achieve success in marketing [85]. This is because the design of packages influences the psychology of consumers and this stimulates loyalty to the product, especially through word-of-mouth advertisements [86,87,88]. Several studies on

package aesthetics have found that they significantly affect enjoyment [89,90,91].

Generally, tourist destinations incorporate aesthetics in their products and services' packaging to create enjoyment for their customers [89]. The perception of consumers of resorts for instance in terms of colour affects hedonic values such as enjoyment [92]. In the field of tourism, therefore, packaging aesthetics features more positively and stimulates the enjoyment of tourists [6]. Further, customer satisfaction which is the cognitive evaluation of customers after a purchase [93], is predicted by packaging aesthetics [36]. This means that packaging aesthetics guarantees the trustworthiness, product/service differentiation and integrity of tourist destinations which affects the choices of tourists [94,95]. Studies have shown that the expectations of tourists are heightened by packaging aesthetics and these in turn increase their satisfaction as well as their tendency to revisit these destinations [96,36,97].

2.7.3. Taste aesthetics and tourist satisfaction

German philosopher Alexander Baumgarten established a formal connection between aesthetics and a sense of beauty in 1750. This connection laid the groundwork for the evolution of aesthetic evaluations and the underlying logic of the pursuit of beauty [12]. The current knowledge and assessment of aesthetics emerged during this age, which is referred to as the "enlightenment" period [12]. A product or service will be more likely to be bought by consumers if they can relate to its design features. In fact, well-designed goods and services have the power to enhance customers' preferences and personalities [98]. According to Ref. [83], a commercial entity's primary success criterion is customer happiness, and one of the biggest factors influencing tourist satisfaction is taste. This type of aesthetics appeals to and pleases the senses of tourists' taste which is considered a primary priority. Every tourism product assumes knowledge of diverse cultures, familiarity with artistic creations, exposure to breath-taking natural settings, and numerous other facets of an aesthetic understanding of reality. As a result, tourist aesthetic taste is formed by travel, which is an artistic endeavour. In addition to strengthening emotional experiences, collaborative discussions and aesthetic assessments of impressions from what a tourist saw and heard enable them to assess their own aesthetic preferences and perceptions of reality [99].

3. Methods

3.1. Sample

The study is explanatory in nature since the objective of the research is to determine the cause-and-effect relationship between aesthetics types and tourist satisfaction. The study is cross-sectional in nature and used the quantitative research approach with questionnaires deployed to gather data from respondents. The population of the study was made up of tourists who visit tourists' destinations in Ghana. Three hundred and fifty (350) respondents constitute the sample size of the study as suggested by Ref. [100] for infinite population sizes. This sample size falls within the sample recommendation of 200–300 [101], 300 and above for quantitative studies [102]. Non-probability sampling technique; specifically purposive sampling was utilised in selecting 350 respondents for data collection. Out of the 350 questionnaires distributed, a total of 300 were retrieved representing 85.7 % response rate [103,104]. stipulated that a response rate of 70 % or higher is regarded to be free of response-related mistakes. As a result, the data gathered can be used for further investigation. The data was analysed using Statistical Package for Social Sciences (SPSS). Multiple linear regression

Table 1
Demographic characteristics of respondents.

Demographics	Frequency	Percent
Gender:		
Male	133	44.3
Female	167	55.7
Age:		
18–30	22	7.3
31–40	60	20.0
41–50	122	40.7
51–60	40	13.3
Above 60	56	18.7
Education:		
SHS	18	4.9
Technical/Vocational	10	1.7
Diploma	57	18.8
Undergraduate Degree	173	60.1
Graduate (Masters/PhD)	42	14.6
Length of visit to tourist destination:		
0–5 years	53	17.7
6–10 years	72	24.0
11–15 years	160	53.3
16 years and above	15	5.0
Total	300	100.0

Source: Survey Data, 2023.

analysis in SPSS software was used to determine the effect of the various aesthetic types (visual product aesthetics, package aesthetics and taste aesthetics) on tourist satisfaction. The questionnaire used for data collection was ethically verified and respondents' consent sought before administering to them. The respondents were informed that their participation was entirely optional and the information requested will be used solely for academic purposes and that their identities as well as privacy would be highly confidential. The questionnaire was approved by the director of research and innovation (Ho Technical University) with reference number HTU/DRI/EC2023-022.

3.2. Measures and results

Four demographic questions were asked in total. Table 2 contains the rest of the questions as well as their sources. All of the questions were measured "on a Likert scale of 1–5, with 1 denoting strongly disagree, 2 disagree, 3 neutral, 4 agree, and 5 strongly agree." The outcome of the study revealed that more female tourists were sampled compared to males. Thus, out of a total of 300 respondents who participated in the study, 44.3 % were males whereas 55.7 % were females. Majority of the respondents (40.7 %) were within the age range of 41–50 years, followed by 20 % (31–40 years) and 18.7 % (above 60 years). The minority 13.3 % and 7.3 % were within the age ranges of 51–60 years and 18–30 years respectively. Also, 95.1 % of the respondents had various tertiary level qualifications (Technical/Vocational, Diploma, Undergraduate Degree and Graduate-Masters/PhD). In relation to how long the respondents have been visiting tourists' destinations in Ghana, majority represented by 53.3 % indicated 11–15 years, followed by 24 % and 17.7 % which the study participants indicated were between 6–10 years and 0–5 years respectively. The minority 5 % have been visiting tourist destinations in Ghana for over 16 years. These outcomes are exhibited in Table 1.

3.3. Validity and reliability

The analysis commenced with an assessment of the 31-item instrument through CFA [105]. CFA was used to identify and delete items with factor loading (standardized regression weight) values less than 0.6 in an iterative process before computing CA, CR, AVE and MSV [106]. This process led to the elimination of 4 items from the model. The remaining 27 items in the model recorded a good fit (SRMR = 0.065) based on the recommended criteria by Ref. [107] who preferred a combination of Comparative Fit Index (CFI) > 0.95 and Standardized Root Mean Square Residual (SRMR) < 0.08.

Scale reliability was assessed using the Cronbach's Alpha (CA)/composite reliability (CR) ≥ 0.70 [108]. As evident from Table 2, all the aesthetics types and tourist satisfaction reported both CA and CR values above 0.7. Hence it can be inferred that the 27 remaining items of the instrument were reliable for analysis.

Validity (convergent and discriminant) was also tested using the Average Variance Extracted (AVE) ≥ 0.5 and the Maximum Shared

Table 2
Validity and reliability statistics.

Construct	Items	Loading	CA	CR	AVE	MSV					
Visual Product Aesthetics (VPA)	VPA3	0.733	0.910	0.910	0.531	0.449					
	VPA4	0.672									
	VPA5	0.707									
	VPA6	0.749									
	VPA7	0.730									
	VPA8	0.791									
	VPA9	0.733									
	VPA10	0.789									
	VPA11	0.642									
	Package Aesthetics (PA)	PA1					0.673	0.866	0.866	0.520	0.449
		PA2					0.676				
PA3		0.699									
PA4		0.758									
PA5		0.753									
PA6		0.762									
Taste Aesthetics (TA)	TA3	0.820	0.917	0.918	0.691	0.323					
	TA4	0.854									
	TA5	0.857									
	TA6	0.767									
	TA7	0.855									
Tourist Satisfaction (TS)	TS1	0.685	0.879	0.882	0.517	0.376					
	TS2	0.676									
	TS3	0.621									
	TS4	0.734									
	TS5	0.699									
	TS6	0.795									
	TS7	0.805									
Model Fit (SRMR = 0.065)											

Source: Survey Data, 2023.

Variance (MSV) < AVE criteria respectively. The AVE statistic was used to evaluate convergent validity whereas MSV statistics was used to evaluate discriminant validity. For each measure of aesthetics type and tourist satisfaction, the Average Variance Extracted (AVE) ≥ 0.5 and the Maximum Shared Variance (MSV) < AVE threshold established by researchers [106,109] were met. Hence, we can deduce that both convergent and discriminant validity for all scales is confirmed.

4. The aesthetic types in the hospitality industry

The first objective of the study sought to examine the aesthetic types in the Hospitality Industry. Aesthetics type was measured based on three main proxies viz, visual product aesthetics, package aesthetics and taste aesthetics.

4.1. Visual product aesthetics

Table 3 illustrates the levels of agreement of the respondents to statements relating to visual product aesthetics. As depicted in Table 3, the respondents concurred to all the items relating to visual product aesthetics. This was represented by a high mean value of (M = 4.40, S.D. = 0.71). The standard deviation also indicated a high convergence in the view of the respondent pertaining to visual product aesthetics. This implies that tourists have a strong desire to visit destinations that have great designs and have the ability to envisage how a tourist destination will fit in with designs of other destinations they had already visited. Thus, we can deduce that visual product aesthetics influence customer visits.

4.2. Package aesthetics

The outcomes presented in Table 4 revealed the levels of agreement of the respondents to statements relating to package aesthetics. As espoused in Table 4, the study participants agreed to all the items relating to package aesthetics. This was reported by a high mean value of (M = 4.42, S.D. = 0.69). The standard deviation also indicated a low spread in the view of the respondents pertaining to package aesthetics. This implies that the design of the tourists’ destinations look attractive to tourists and the overall look of the tourists’ destination is visually appealing. Decorations and night scenery at the destinations also influence customer patronage and further promotes revisits intention. Hence, we can gather that packaging aesthetics influence tourists’ visits.

4.3. Taste aesthetics

The results ascertained in Table 5 revealed the levels of agreement of the respondents to statements relating to taste aesthetics. As expounded in Table 5, the study respondents concurred to all the items relating to taste aesthetics. This was reported by a high mean value of (M = 4.38, S.D. = 0.75). The standard deviation also specified a low spread in the view of the respondent regarding taste aesthetics. This directs that visit to tourists’ destinations by customers is inclined by their aesthetics taste and that aesthetic satisfaction depends on individuals’ expectation. Therefore, we can presume that taste aesthetics influence tourist visits.

5. Tourist satisfaction

Table 6 illustrates the levels of agreement of the respondents to statements relating to tourists’ satisfaction. As depicted in Table 6, the respondents concurred to all the items relating to tourists’ satisfaction. This was represented by a high mean value of (M = 4.41, S.D. = 0.67). The standard deviation also indicated a high convergence in the views of the respondents pertaining to their satisfaction levels with destinations. This implies that customers are satisfied with the visual product aesthetics and the package aesthetics of tourists’ destinations they visited. They also indicated that they would revisit destinations because of their aesthetics and would also recommend destinations to family and friends because of their aesthetics. Hence, we can deduce that customers are highly satisfied with tourist destinations in Ghana.

Table 3
Visual product aesthetics.

S/N Statements	Mean	Std. Dev.
1. A destinations’ design is a source of pleasure for me.	4.4533	0.66531
2. Beautiful destination designs make our world a better place to live.	4.4233	0.71120
3. Being able to see subtle differences in tourist destination designs is one skill that I have developed over time.	4.4400	0.73589
4. I see things in destinations’ design that other people tend to pass over.	4.3933	0.72598
5. I have the ability to imagine how a tourist destination will fit in with designs of other destinations I already visited	4.4400	0.67917
6. I have a pretty good idea of what makes one tourist destination look better than others.	4.3167	0.76047
7. Sometimes the way a tourist destination looks makes me to reach out and visit there	4.3300	0.71377
8. If tourist destinations’ design really “speaks” to me, I feel that I must visit it.	4.3733	0.70873
9. When I see a tourist destination that has a really great design, I feel a strong urge to visit it	4.4667	0.67608
Total	4.4041	0.70851

Source: Survey Data, 2023.

Table 4
Package aesthetics.

S/N Statements	Mean	Std. Dev.
1.The design of the tourist destination looks attractive to me	4.5100	0.67683
2. The packaging of the destination is creatively designed	4.4267	0.65782
3. The decorations and night scenery at the destinations influence my patronage	4.4200	0.65193
4. The overall look of the tourist destination is visually appealing	4.4000	0.71767
5. I patronize a tourist destination because of the aesthetic packaging	4.3267	0.72228
6. A well packaged tourist destination promotes revisit intention	4.4200	0.72481
Total	4.4172	0.69189

Source: Survey Data, 2023.

Table 5
Taste aesthetics.

S/N Statements	Mean	Std. Dev.
1. I think the aesthetic taste of tourist destinations can be improved	4.4000	0.76285
2. I think aesthetic satisfaction depends on individuals' expectation	4.4467	0.73641
3. A person who has bad aesthetic taste is a person who likes things that have no aesthetic values	4.3233	0.77941
4. Aesthetic taste of a tourist destination influences my choice of destination	4.3367	0.76939
5. I visit tourist destinations because of aesthetics tastes' value	4.3900	0.72086
Total	4.3793	0.75378

Source: Survey Data, 2023.

Table 6
Tourist satisfaction.

S/N Statements	Mean	Std. Dev.
1. I am happy with the visual product aesthetics of tourist destinations I have visited	4.5033	0.59259
2. I am satisfied with the package aesthetics of these tourist destinations	4.3867	0.63653
3. I felt joy and satisfaction after visiting the tourist destinations	4.3267	0.76719
4. The travel experience to the tourist destination has fulfilled my expectation	4.4167	0.66674
5. I think that visiting tourists' destinations was a wise choice	4.4267	0.65272
6. I would revisit tourists' destinations because of their aesthetics in the future	4.4333	0.69317
7. I am willing to recommend tourists' destinations I have visited to family and friends because of their aesthetics.	4.3600	0.67720
Total	4.4076	0.66945

Source: Survey Data, 2023.

5.1. The relationship between aesthetic types and tourist satisfaction

The second objective of the study sought to assess the relationship between aesthetic types and tourist satisfaction. The Pearson's correlation matrix explained in Table 7, established the relationship between the independent variables (visual product aesthetics, package aesthetics and taste aesthetics) and the dependent variable (tourist satisfaction). As evident from Table 7, visual product aesthetics ($r = 0.552, p < 0.01$), package aesthetics ($r = 0.592, p < 0.01$) and taste aesthetics ($r = 0.602, p < 0.01$) reported significant positive relationships with tourist satisfaction. Visual product aesthetics, package aesthetics and taste aesthetics also recorded significant positive associations among each other. Thus, we can infer those aesthetic types (visual product aesthetics, package aesthetics and taste aesthetics) had significant positive correlations with tourist satisfaction as established in Table 7.

Table 7
Pearson's correlation matrix.

Variables		Visual Product Aesthetics	Package Aesthetics	Taste Aesthetics	Tourist Satisfaction
Visual Product Aesthetics	Pearson Corr.	1.000			
	Sig. (2-tailed)				
Package Aesthetics	Pearson Corr.	0.592 ^a	1.000		
	Sig. (2-tailed)	0.000			
Taste Aesthetics	Pearson Corr.	0.602 ^a	0.427 ^a	1.000	
	Sig. (2-tailed)	0.000	0.000		
Tourist Satisfaction	Pearson Corr.	0.552 ^a	0.423 ^a	0.293 ^a	1.000
	Sig. (2-tailed)	0.000	0.000	0.000	

Source: Survey Data, 2023.

^a Correlation is significant at the 0.01 level (2-tailed).

5.2. The effect of aesthetics types on tourist satisfaction

The third objective of the study sought to examine the effect of aesthetics types on tourist satisfaction. The study engaged multiple linear regression analysis to determine the effect of aesthetic types (visual product aesthetics, package aesthetics and taste aesthetics) on tourists' satisfaction. As evident in Table 8, the value of R-squared was 0.322. This implies that a variation of 32.2 % in tourist satisfaction can be explained by visual product aesthetics, package aesthetics and taste aesthetics.

Also, the ANOVA illustrates the overall significance of the model by the value of the F-statistics, $F(3, 296) = 46.958, p < 0.05$. This implies that the model is fit to predict the effect of aesthetic types (visual product aesthetics, package aesthetics and taste aesthetics) on tourist satisfaction.

The findings in Table 8 further demonstrates that the coefficients of visual product aesthetics ($\beta = 0.372$) and package aesthetics ($\beta = 0.175$) were positive. This indicates that visual product aesthetics and package aesthetics were positively related to tourist satisfaction. Hence, a unit increase in visual product aesthetics and package aesthetics would lead to an increase in tourists' satisfaction by their respective coefficients. The coefficient of taste aesthetics ($\beta = -0.078$) was however negative, implying an inverse relationship with tourist satisfaction.

Additionally, the study revealed the significance of all the predictors on the dependent variable. Based on the significance of the coefficients, visual product aesthetics ($\beta = 0.372, p < 0.05$) and package aesthetics ($\beta = 0.175, p < 0.05$) were statistically significant in predicting a change in tourist satisfaction at a significance level of 5 %. The coefficient of taste aesthetics ($\beta = -0.078, p > 0.05$) was statistically insignificant. Therefore, we can surmise that aesthetics types (visual product aesthetics and package aesthetics) have significant positive impact on tourist satisfaction whereas taste aesthetics has no significant positive effect on tourist satisfaction.

6. Conclusion

The current study mainly investigated the role of aesthetics in tourist satisfaction in the Ghanaian hospitality industry. The study was guided by three research objectives. The first objective of the study examined the aesthetic types in the hospitality industry. With that [110], reported that the overall satisfaction of tourists is a central factor for the success of a tourist destination that uses aesthetics as one of its tourist attractions; hence, it is essential to know which aspects of the aesthetic experience make vacations more satisfying. If promoters know which tourism products affect the satisfaction of tourists, they may develop proper marketing strategies that increase tourists' satisfaction [111]. The study results proved that the three main types of aesthetics that influence tourists' visitation to tourist destinations are visual product aesthetics, package aesthetics and taste aesthetics. These outcomes are in line with that of [37] who explored aesthetic dimensions in a nature-based tourism context and identified five dimensions of aesthetics that customers patronize, viz harmony, variation/contrast, scenery/viewing, genuineness, and art/architecture with majority of the respondents vouching for harmony and variation/contrast as the central dimensions. Also [32,112], avers that visual product aesthetics are embedded in tourism. Similarly [99], states that taste aesthetic contributes to the total satisfaction or experience of tourists.

Secondly, the study assessed the relationship between aesthetic types (visual product aesthetics, package aesthetics and taste aesthetics) and tourists' satisfaction. The study outcomes discovered that visual product aesthetics, package aesthetics and taste aesthetics had significant positive correlations with tourists' satisfaction. These outcomes support the findings of [113,21] who explored the role of aesthetics experiential qualities for tourists' satisfaction and loyalty and unveiled that the three aesthetic experiential qualities; scenery, harmony and genuineness were all positively related to tourists' overall satisfaction with the tourists' road. Additionally [37], also explored aesthetic dimensions in a nature-based tourism context and established that aesthetic dimensions influence customer satisfaction. Again, the study has revealed that tourists have a strong desire to visit destinations that have great designs and the ability of how these designs resonate with other designs like what they have seen in different places. It therefore implies that visual product aesthetics influences customers' visits. This is in line with a study by Ref. [114] that found that tourists have a positive attitude to a specific food available at a travel destination and this also has the ability to influence whether they intend to revisit that destination or not.

The third objective of the study examined the effect of aesthetics types (visual product aesthetics, package aesthetics and taste aesthetics) on tourists' satisfaction. The study results established that aesthetics types (visual product aesthetics and package aesthetics) have significant positive impact on tourists' satisfaction whereas taste aesthetics has no significant positive effect on tourists'

Table 8
Regression analysis.

Tourist Satisfaction	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	13.897	1.728		8.042	0.000
Visual Product Aesthetics	0.372	0.050	0.507	7.489	0.000
Package Aesthetics	0.175	0.066	0.157	2.626	0.009
Taste Aesthetics	-0.078	0.059	-0.079	-1.317	0.189
R-squared = 0.322 (Adj. R-squared = 0.316)					
F (3, 296) = 46.958					
Prob > F = 0.000					

Source: Survey Data, 2023.

satisfaction. This outcome is similar to the findings of [37] who studied the role of aesthetic experiential qualities for tourists' satisfaction and loyalty and found that aesthetic qualities, cleanliness and genuineness, have a direct effect on intention to revisit the same tourist road. The outcomes of [20] also support the current study findings. Also [20], researched on how port aesthetics affect destination image, tourists' satisfaction and tourists' loyalty and unraveled that destination image positively influence tourists' satisfaction. It has been revealed that visitors' taste also influences them in the destinations that they visit. With this, their satisfaction is dependent on what they expect from a destination. Thus, it can be assumed that taste influences tourists' visits. This is in line with a study by Ref. [115], which found that tourists' consumption of indigenous food arouses certain emotional responses, including enjoyment, sensory stimulation and fulfilment, most especially, when such experiences are novel.

The study therefore concludes that aesthetics influence tourists' visitation to the various destinations in the study. And also, there is a correlation between aesthetic types (visual product aesthetics, package aesthetics and taste aesthetics). The study also provides that aesthetics types (visual product and package aesthetics) have impact on the satisfaction of tourists, thus these are key aesthetic elements that can be used to improve tourists' behaviour in the destinations and the entire hospitality industry. This means that identifying and providing these elements will help develop the overall touristic products that will lead to tourists' satisfaction.

7. Empirical implication

The study contributes to the knowledge gap in previous research on the roles that aesthetics play in tourists' satisfaction. The findings of previous research depict aesthetics effect on satisfaction and revisit intentions and intentions to recommend. This study also proves to be in the same path. It reveals that tourists have been influenced by visual products, package and taste aesthetics and are likely to revisit. This again requires for further development in the destinations. The literature on taste has proved that consumers acquire tastes during childhood and in later stages of their life through cultural and visual images [116]. It has also been found that the human senses (senses of sound) play a significant role in stimulating the appetites and people's influence to order. It is therefore prudent for hospitality and destination managers to take into account how the visual aspects and impression of the appearance of their foods influence revisits and expectations related to the taste of foods.

8. Theoretical contribution

The authors underscore the fact that, tourists do not only perceive destinations as satisfying by either the visual or the content elements, but rather by the interaction of these two elements [117,118,119,120]. This study therefore contributes by expanding knowledge in understanding the aesthetic theory and the aesthetic elements that impact tourists' satisfaction. This means that the visual product, package and taste aesthetics assessed are vital components in projecting the positive perceptions tourists have about destinations. Thus, the discussions enrich our comprehension of aesthetic experiences and lay emphasis on the unique role they play in ensuring tourists' satisfaction in the Ghanaian hospitality industry. Additionally, the study contributes scientifically to aesthetics in tourists' destination and addresses the research questions that contributed significantly to understanding the theoretical relevance of the discussions at various levels in the hospitality industry.

9. Managerial implication

In order to increase tourists' experiences and revisit intentions, hospitality managers and owners of tourist facilities should improve the servicescape elements which have proven to be indicators for determining perceived service quality and also influence other aspects of the service. Based on the results, tourism managers should be able to utilise their resources effectively by devising the visual products, tastes and tourism packages aesthetics that can increase the satisfaction of tourists. It is therefore prudent to improve aspects of the aesthetic experiences such as food varieties, ambience of restaurant and the availability of local food sensory elements. Tourism managers should collaborate and cooperate with other operators and key stakeholders in the industry to increase the level of satisfaction in tourists' experience.

Hospitality and destination managers should aim to develop the tourism products such that the products have cognitive appeals. For instance Ref. [121], mentioned that the selection of package designs can be simplified with the use of five holistic types which are massive, contrasting, natural, delicate and non-descript designs. With this, the industry practitioners can audit their aesthetic qualities and also critically assess the importance that tourists attach to the various aesthetic elements in measuring the satisfaction that destinations offer. Thus, this approach of tourists ranking the various aesthetic elements will guide destination managers to develop the right marketing strategies in order to project the aesthetics types that appeal more to tourists. Furthermore, the method to measure the aesthetic distance enables marketers to identify the market segments with aesthetic distances that optimally increase the likelihood of positive aesthetic judgment and satisfaction.

10. Limitation and direction for future research

This study focused on the roles that aesthetics play in tourists' satisfaction. The study did not specify the category of tourists that were examined. This limited the scope of discussion and focus. Future research can focus on international tourists that have varied cultural backgrounds to know their views regarding the visual product, designs and taste aesthetics. Although the measurement instruments used in the study is adapted from existing literature, the structure of the questionnaire gives no room for the respondents' thoughts on the variables of interest. The study was designed quantitatively and thus adopted quantitative approach to gather and

analyse data. Future research can look at a qualitative approach to assess tourists' perception of the destinations. This will enable them to express their views more broadly comparable to the quantitative approach. For instance, focus group discussions and in-depth interviews could be employed to explore new insights into various aesthetics types that influence tourists' satisfaction. Also, the study employed the purposive sampling in selecting the respondents, hence caution must be taken when generalizing the findings. Additionally, an important way to extend the knowledge is for future studies to investigate other variables such as aesthetic beauty to further explain tourists' satisfaction. Finally, the study examined the model at only a single period (cross-sectional survey). Future studies should consider longitudinal approach to explore the procedures by which various aesthetic types (visual product, taste, package) affect tourists' satisfaction.

Data availability

Data will be made available on request.

CRediT authorship contribution statement

Ernest E. Tulasi: Writing – review & editing, Writing – original draft, Formal analysis, Conceptualization. **Oliver E. Ashiaby:** Methodology, Data curation. **Prince Kodua:** Resources, Project administration, Conceptualization. **Bright Ahlijah:** Project administration, Formal analysis, Data curation. **Matthew Opoku Agyeman-Duah:** Writing – review & editing, Project administration, Methodology, Data curation.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.heliyon.2024.e32944>.

References

- [1] M.C. Bölen, Exploring the determinants of users' continuance intention in smartwatches, *Technol. Soc.* 60 (2020) 101209.
- [2] S.G. Genc, S.P. Temizkan, Destination aesthetics: an empirical study of aesthetic judgment and aesthetic distance among tourists in Turkey, *European Journal of Tourism Research* 33 (2023) 3308, 3308.
- [3] J. Wang, Y. Hsu, Does sustainable perceived value play a key role in the purchase intention driven by product aesthetics? Taking smartwatch as an example, *Sustainability* 11 (23) (2019) 6806.
- [4] J. Blijlevens, C. Thurgood, P. Hekkert, L.L. Chen, H. Leder, T.W. Whitfield, The Aesthetic Pleasure in Design Scale: the development of a scale to measure aesthetic pleasure for designed artifacts, *Psychology of Aesthetics, Creativity, and the Arts* 11 (1) (2017) 86.
- [5] L. Lu, D. Gursoy, Does offering an organic food menu help restaurants excel in competition? An examination of diners' decision-making, *Int. J. Hospit. Manag.* 63 (2017) 72–81.
- [6] I. Schindler, G. Hosoya, W. Menninghaus, U. Beermann, V. Wagner, M. Eid, K.R. Scherer, Measuring aesthetic emotions: a review of the literature and a new assessment tool, *PLoS One* 12 (6) (2017) e0178899.
- [7] S.L. Wu, C.P. Hsu, Role of authenticity in massively multiplayer online role-playing games (MMORPGs): determinants of virtual item purchase intention, *J. Bus. Res.* 92 (2018) 242–249.
- [8] L.E. Boone, D.L. Kurtz, S. Berston, *Contemporary Business*, John Wiley & Sons, 2019.
- [9] I.I.I.C.A. O'Reilly, M.L. Tushman, *Lead and Disrupt: How to Solve the Innovator's Dilemma*, Stanford University Press, 2021.
- [10] R. Diessner, R. Pohlning, S. Stacy, A. Güsewell, Trait appreciation of beauty: a story of love, transcendence, and inquiry, *Rev. Gen. Psychol.* 22 (4) (2018) 377–397.
- [11] A. Brachmann, C. Redies, Computational and experimental approaches to visual aesthetics, *Front. Comput. Neurosci.* 11 (2017) 102.
- [12] R. Mundher, S. Abu Bakar, M. Al-Helli, H. Gao, A. Al-Sharaa, M.J. Mohd Yusof, A. Aziz, Visual aesthetic quality assessment of urban forests: a conceptual framework, *Urban Science* 6 (4) (2022) 79.
- [13] G. Iseminger, *The aesthetic function of art*, in: *The Aesthetic Function of Art*, Cornell University Press, 2018.
- [14] S.F. Fokkinga, P.M. Desmet, Ten ways to design for disgust, sadness, and other enjoyments: a design approach to enrich product experiences with negative emotions, *Int. J. Des.* 7 (1) (2013).
- [15] K. Gidlöf, A. Anikin, M. Lingonblad, A. Wallin, Looking is buying. How visual attention and choice are affected by consumer preferences and properties of the supermarket shelf, *Appetite* 116 (2017) 29–38.
- [16] M.J. Ainslie, S.J. Lipura, J. Lim, Understanding the Potential for a Hallyu "Backlash" in Southeast Asia: A Case Study of Consumers in Thailand, Malaysia and Philippines, 2018.
- [17] T. Dhanabalan, K. Subha, R. Shanthy, A. Sathish, Factors influencing consumers' car purchasing decision in Indian automobile industry, *Int. J. Mech. Eng. Technol.* 9 (10) (2018) 53–63.
- [18] A. Preko, G.K. Amoako, R.K. Dzogbenuku, J. Kosiba, Digital tourism experience for tourist site revisit: an empirical view from Ghana, *J. Hospit. Tour. Insights* (2022) (ahead-of-print).
- [19] J.E. Carins, S.R. Rundle-Thiele, D.L. Ong, Keep them coming back: the role of variety and aesthetics in institutional food satisfaction, *Food Qual. Prefer.* 80 (2020) 103832.
- [20] C.S. Lu, H.K. Weng, S.Y. Chen, C.W. Chiu, H.Y. Ma, K.W. Mak, T.C. Yeung, How port aesthetics affect destination image, tourist satisfaction and tourist loyalty? *Maritime Business Review* 5 (2) (2020) 211–228.
- [21] M.A. Breiby, T. Slåtten, The role of aesthetic experiential qualities for tourist satisfaction and loyalty, *Int. J. Cult. Tourism Hospit. Res.* (2018).

- [22] V. Genc, S.G. Genc, The effect of perceived authenticity in cultural heritage sites on tourist satisfaction: the moderating role of aesthetic experience, *J. Hospit. Tour. Insights* (2022).
- [23] M. Aljukhadar, A.B. Poirier, S. Senecal, Imagery makes social media captivating! Aesthetic value in a consumer-as-value-maximizer framework, *J. Res. Indian Med.* (2020).
- [24] R. Filieri, Z. Lin, The role of aesthetic, cultural, utilitarian and branding factors in young Chinese consumers repurchase intention of smartphone brands, *Comput. Hum. Behav.* 67 (2017) 139–150.
- [25] T. Liao, Future directions for mobile augmented reality research: understanding relationships between augmented reality users, nonusers, content, devices, and industry, *Mobile Media & Communication* 7 (1) (2019) 131–149.
- [26] B.S. Atiyeh, M.T. Rubeiz, S.N. Hayek, Aesthetic/cosmetic surgery and ethical challenges, *Aesthetic Plast. Surg.* 44 (4) (2020) 1364–1374.
- [27] D. Huang, Z. Li, J. Mou, X. Liu, Effects of flow on young Chinese consumers' purchase intention: a study of e-servicescape in hotel booking context, *Inf. Technol. Tourism* 17 (2) (2017) 203–228.
- [28] V. Genc, M.A. Kozak, Emotional and social competence in the aestheticization of labor in the restaurant industry, *Int. J. Contemp. Hospit. Manag.* 32 (3) (2020) 1201–1225.
- [29] X. Xu, T. Schrier, Hierarchical effects of website aesthetics on customers' intention to book on hospitality sharing economy platforms, *Electron. Commer. Res. Appl.* 35 (2019) 100856.
- [30] H.J. Jung, Y.J. Choi, K.W. Oh, Influencing factors of Chinese consumers' purchase intention to sustainable apparel products: exploring consumer "attitude-behavioural intention" gap, *Sustainability* 12 (5) (2020) 1770.
- [31] I.A. Wong, Y.K.P. Wan, D. Sun, Understanding hospitality service aesthetics through the lens of aesthetic theory, *J. Hospit. Market. Manag.* 32 (3) (2023) 1–35.
- [32] K. Kirillova, J. Chan, "What is beautiful we book": hotel visual appeal and expected service quality, *Int. J. Contemp. Hospit. Manag.* 30 (3) (2018) 1788–1807.
- [33] V. Apaolaza, P. Hartmann, C. Fernández-Robin, D. Yáñez, Natural plants in hospitality servicescapes: the role of perceived aesthetic value, *Int. J. Contemp. Hospit. Manag.* 32 (2) (2020) 665–682.
- [34] J.-S. Hornig, H. Hsu, A holistic aesthetic experience model: creating a harmonious dining environment to increase customers' perceived pleasure, *J. Hospit. Tourism Manag.* 45 (2020) 520–534.
- [35] D. Kim, H. Hyun, J. Park, The effect of interior color on customers' aesthetic perception, emotion, and behavior in the luxury service, *J. Retailing Consum. Serv.* 57 (2020) 102252.
- [36] Y.J. Kim, J.S. Park, H.M. Jeon, Experiential value, satisfaction, brand love, and brand loyalty toward robot barista coffee shop: the moderating effect of generation, *Sustainability* 13 (21) (2021) 12029.
- [37] M.A. Breiby, Exploring aesthetic dimensions in a nature-based tourism context, *J. Vacat. Mark.* 20 (2) (2014) 163–173.
- [38] S.H.J. Chan, Y.K.P. Wan, U.T.Z. Tam, Tourists' description of their experiences of the servicescape of integrated resorts: the case of Macau, *Int. J. Hospit. Tourism Adm.* 22 (3) (2021) 269–302.
- [39] J.-S. Hornig, H. Hsu, Esthetic dining experience: the relations among aesthetic stimulation, pleasantness, memorable experience, and behavioral intentions, *J. Hospit. Market. Manag.* 30 (4) (2021) 419–437.
- [40] K. Kirillova, X. Lehto, Destination aesthetics and aesthetic distance in tourism experience, *J. Trav. Tourism Market.* 32 (8) (2015) 1051–1068.
- [41] A. Vlahos, A.E. Hartman, J.L. Ozanne, Aesthetic work as cultural competence: chasing beauty in the coproduction of aesthetic services, *J. Serv. Res.* 25 (1) (2022) 126–142.
- [42] B.A. Danso, H. Xuhua, O.I. Fuseini, Technological innovation and firm performance among star rated hotels in Ghana, *IOSR J. Bus. Manag.* 22 (5) (2020) 10.
- [43] B. Diaw, G. Asare, Effect of innovation on customer satisfaction and customer retention in the telecommunication industry in Ghana: customers' Perspectives, *European Journal of Research and Reflection in Management Sciences* 6 (4) (2018) 15–26.
- [44] A. Agyapong, H.K. Mensah, A.M. Ayuuni, The moderating role of social network on the relationship between innovative capability and performance in the hotel industry, *Int. J. Emerg. Mark.* 13 (5) (2018) 801–823.
- [45] M.A. Yeboah, Assessment of innovative capacity in hotels: the case of three-star hotels in Elmina, Ghana, *JOHAR* 10 (2) (2015) 16–32.
- [46] B.A. Danso, R.A. Fenteng, b. Osman, The nexus between innovation, knowledge sharing and firm performance: an insight into star-rated hotels in Ghana, *Takoradi Technical University Journal of Technology* 8 (1) (2022) 1–22.
- [47] Y. Mumcu, H.S. Kimzan, The effect of visual product aesthetics on consumers' price sensitivity, *Procedia Econ. Finance* 26 (2015) 528–534.
- [48] C. Buda, The concept of the aesthetics, *RAIS Journal for Social Sciences* 1 (1) (2017) 44–51.
- [49] G.J. Selz, Aesthetics. A Companion to Ancient Near Eastern Art, 2018, pp. 359–381.
- [50] D. Alfakhri, D. Harness, J. Nicholson, T. Harness, The role of aesthetics and design in hotelscape: a phenomenological investigation of cosmopolitan consumers, *J. Bus. Res.* 85 (2018) 523–531.
- [51] L.C. Hoe, S. Mansori, The effects of product quality on customer satisfaction and loyalty: evidence from Malaysian engineering industry, *Int. J. Ind. Market.* 3 (1) (2018) 20.
- [52] P.H. Bloch, Seeking the ideal form: product design and consumer response, *J. Market.* 59 (3) (1995) 16–29.
- [53] P.A. Rauschnabel, Augmented reality is eating the real-world! The substitution of physical products by holograms, *Int. J. Inf. Manag.* 57 (2021) 102279.
- [54] P.H. Bloch, F.F. Brunel, T.J. Arnold, Individual differences in the centrality of visual product aesthetics: concept and measurement, *J. Consum. Res.* 29 (4) (2003) 551–565.
- [55] R.D. Swetnam, S.K. Harrison-Curran, G.R. Smith, Quantifying visual landscape quality in rural Wales: a GIS-enabled method for extensive monitoring of a valued cultural ecosystem service, *Ecosyst. Serv.* 26 (2017) 451–464.
- [56] M.P. Pessôa, J.J. Becker, Smart design engineering: a literature review of the impact of the 4th industrial revolution on product design and development, *Res. Eng. Des.* 31 (2) (2020) 175–195.
- [57] W.K. Tan, M.S. Sie, The impact of personal innovativeness on product aesthetics and self-connection with brand: a case study of mobile phone users, *Behav. Inf. Technol.* 34 (3) (2015) 316–325.
- [58] R. Chitturi, J.C. Londono, C.A. Amezquita, The influence of colour and shape of package design on consumer preference: the case of orange juice, *International Journal of Innovation and Economic Development* 5 (2) (2019) 42–56.
- [59] U.R. Orth, G.M. Rose, A. Merchant, Preservation, rejuvenation, or confusion? Changing package designs for heritage brands, *Psychol. Market.* 36 (9) (2019) 831–843.
- [60] M.E. Creusen, G. Gemser, M. Candi, The influence of experiential augmentation on product evaluation, *Eur. J. Market.* (2018).
- [61] X. Deng, S.K. Hui, J.W. Hutchinson, Consumer preferences for color combinations: an empirical analysis of similarity-based color relationships, *J. Consum. Psychol.* 20 (4) (2010) 476–484.
- [62] W.D. Hoyer, N.E. Stokburger-Sauer, The role of aesthetic taste in consumer behaviour, *J. Acad. Market. Sci.* 40 (1) (2012) 167–180.
- [63] C. Bonard, F. Cova, S. Humbert-Droz, De gustibus est disputandum: an empirical investigation of the folk concept of aesthetic taste, in: *Perspectives on Taste*, Routledge, 2021, pp. 77–108.
- [64] A.F. Costales, S.B. Sapin, M.A.R.B.S. Decena, S.L. Ramos, M.O. Medrano, Quantitative study on food aesthetics, marketing mix, and customers' satisfaction among restaurant establishments in Calamba city, Laguna, Philippines, *Tourism and Sustainable Development Review* 3 (2) (2022) 26–56.
- [65] D. Ravasi, I. Stigliani, Product design: a review and research agenda for management studies, *Int. J. Manag. Rev.* 14 (4) (2012) 464–488.
- [66] T. Kristensen, G. Gabrielsen, J.L. Zaichkowsky, How valuable is a well-crafted design and name brand?: recognition and willingness to pay, *J. Consum. Behav.* 11 (1) (2012) 44–55.
- [67] P. Alexis, Over-tourism and anti-tourist sentiment: an exploratory analysis and discussion, *Ovidius University Annals, Economic Sciences Series* 17 (2) (2017) 288–293.
- [68] R. Dodds, R. Butler, Overtourism: Issues, Realities and Solutions, De Gruyter Oldenbourg, 2019.
- [69] R. Sharpley, Tourism, sustainable development and the theoretical divide: 20 years on, *J. Sustain. Tourism* 28 (11) (2020) 1932–1946.

- [70] D.F. Cronjé, E. du Plessis, A review on tourism destination competitiveness, *J. Hospit. Tourism Manag.* 45 (2020) 256–265.
- [71] X.Y. Leung, S. Baloglu, Tourism competitiveness of Asia Pacific destinations, *Tourism Anal.* 18 (4) (2013) 371–384.
- [72] S. Pike, S.J. Page, Destination Marketing Organizations and destination marketing: a narrative analysis of the literature, *Tourism Manag.* 41 (2014) 202–227.
- [73] C.A.N.K. Adikaram, A. Khatibi, M. Yajid, The relationship between customer relationship management and customer satisfaction: a study on private higher education institutions in Sri Lanka, *Int. J. Arts Commer.* 5 (2) (2016) 69–95.
- [74] H.M. Alzoubi, M. Inairat, Do perceived service value, quality, price fairness and service recovery shape customer satisfaction and delight? A practical study in the service telecommunication context, *Uncertain Supply Chain Management* 8 (3) (2020) 579–588.
- [75] B. Popp, H. Woratschek, Consumer–brand identification revisited: an integrative framework of brand identification, customer satisfaction, and price image and their role for brand loyalty and word of mouth, *J. Brand Manag.* 24 (3) (2017) 250–270.
- [76] E. Sthapit, P. Björk, D.N. Coudounaris, Emotions elicited by local food consumption, memories, place attachment and behavioural intentions, *Anatolia* 28 (3) (2017) 363–380.
- [77] D. Van Lierop, M.G. Badami, A.M. El-Geneidy, What influences satisfaction and loyalty in public transport? A review of the literature, *Transport Rev.* 38 (1) (2018) 52–72.
- [78] D. Kala, Examining the impact of food attributes and restaurant services on tourist satisfaction: evidence from mountainous state of India, *J. Qual. Assur. Hospit. Tourism* 21 (4) (2020) 430–453.
- [79] M. Paakki, I. Aaltojärvi, M. Sandell, A. Hopia, The importance of the visual aesthetics of colours in food at a workday lunch, *Int. J. Gastron. Food Sci.* 16 (2019) 100131.
- [80] B. Ma, R.J. Hauer, C. Xu, Effects of design proportion and distribution of colour in urban and suburban green space planning to visual aesthetics quality, *Forests* 11 (3) (2020) 278.
- [81] J. Shi, T. Honjo, K. Zhang, K. Furuya, Using virtual reality to assess landscape: a comparative study between on-site survey and virtual reality of aesthetic preference and landscape cognition, *Sustainability* 12 (7) (2020) 2875.
- [82] Q.I.U. Chun-ting, Application of traditional elements in the packaging design of tourism products in Shaanxi, *Packag. Eng.* 20 (2010).
- [83] P. Best, Branding and design innovation leadership: what's next? *Design Management Review* 19 (3) (2008) 44–50.
- [84] M. Luchs, K.S. Swan, Perspective: the emergence of product design as a field of marketing inquiry, *J. Prod. Innovat. Manag.* 28 (3) (2011) 327–345.
- [85] M.G. Luchs, K.S. Swan, M.E.H. Creusen, Perspective: a review of marketing research on product design with directions for future research, *J. Prod. Innovat. Manag.* 33 (3) (2016) 320–341.
- [86] A.H. Goujot, P.V. Florence, “All you need is love” from product design value perception to luxury brand love: an integrated framework, *J. Bus. Res.* 139 (2022) 1463–1475.
- [87] C. Homburg, M. Schwemmler, C. Kuehnl, New product design: concept, measurement, and consequences, *J. Market.* 79 (3) (2015) 41–56.
- [88] C. Kuehnl, D. Jozic, C. Homburg, Effective customer journey design: consumers' conception, measurement, and consequences, *J. Acad. Market. Sci.* 47 (3) (2019) 551–568.
- [89] S. Cai, Y. Xu, Designing not just for pleasure: effects of web site aesthetics on consumer shopping value, *Int. J. Electron. Commer.* 15 (4) (2011) 159–188.
- [90] D. Cyr, M. Head, A. Ivanov, Design aesthetics leading to m-loyalty in mobile commerce, *Inf. Manag.* 43 (8) (2006) 950–963.
- [91] W.-Q. Ruan, T.-T. Yang, S.-N. Zhang, C.-H. Liu, Y.-Q. Li, How to create tourists' enjoyment? Critical factors and strategic configurations for cultural and creative tourists' enjoyment, *J. Trav. Tourism Market.* 38 (6) (2021) 554–567.
- [92] C. Ji, P. Yang, What makes integrated resort attractive? Exploring the role of experience encounter elements, *J. Trav. Tourism Market.* 39 (3) (2022) 305–319.
- [93] E. Bigne, L. Andreu, C. Perez, C. Ruiz, Brand love is all around: loyalty behaviour, active and passive social media users, *Curr. Issues Tourism* 23 (13) (2020) 1613–1630.
- [94] H. Kuokkanen, F. Bouchon, “When team play matters: building revenue management in tourism destinations, *Tourism Econ.* 27 (2) (2021) 379–397.
- [95] S.K. Roy, G. Singh, M. Hope, B. Nguyen, P. Harrigan, The rise of smart consumers: role of smart servicescape and smart consumer experience co-creation, *J. Market. Manag.* 35 (15) (2019) 1480–1513.
- [96] A. Branstad, B.A. Solem, Emerging theories of consumer-driven market innovation, adoption, and diffusion: a selective review of consumer-oriented studies, *J. Bus. Res.* 116 (2020) 561–571.
- [97] B. Soukhathammavong, E. Park, The authentic souvenir: what does it mean to souvenir suppliers in the heritage destination? *Tourism Manag.* 72 (2019) 105–116.
- [98] J.L.J. Lin, H.L. Ling, G.S. Liem, M.A. Batul, N.A.S.B. Shamsudin, N.A.B.Z. Abidin, B.K. Hasani, Service quality on customer satisfaction and its impact on customer loyalty at KFC in South and Southeast Asia, *International Journal of Tourism and Hospitality in Asia Pacific (IJTHAP)* 6 (3) (2023) 42–56.
- [99] L. Nyurenberger, G. Kvita, N. Shchetinina, T. Gromoglasova, The role of aesthetic component in tourism product development. *Book of Proceedings, Economic and Social Development*, 2019, pp. 310–317.
- [100] M. Dumelle, M. Higham, J.M. Ver Hoef, A.R. Olsen, L. Madsen, A comparison of design-based and model-based approaches for finite population spatial sampling and inference, *Methods Ecol. Evol.* 13 (9) (2022) 2018–2029.
- [101] M.S. Garver, J.T. Mentzer, Logistics research methods: employing structural equation modeling to test for construct validity, *J. Bus. Logist.* 20 (1) (1999) 33.
- [102] Jr J.F. Hair, B.J. Babin, N. Krey, Covariance-based structural equation modeling in the Journal of Advertising: review and recommendations, *J. Advert.* 46 (1) (2017) 163–177.
- [103] M.A. Ali, D.C. Roy, P. Sultana, Some Aspects of Sampling for a Finite Population in Big Data Analysis (2022).
- [104] M.A. Mahmoud, E.K.K. Tsetse, E.E. Tulasi, D.K. Muddey, Green packaging, environmental awareness, willingness to pay and consumers' purchase decisions, *Sustainability* 14 (23) (2022) 16091.
- [105] J. Arbuckle, W. Wothke, *AMOS 4 User's Reference Guide*, Smallwaters Corporation, Chicago, 1999.
- [106] A.E. Hurlley, T.A. Scandura, C.A. Schriesheim, M.T. Brannick, A. Seers, R.J. Vandenberg, L. Williams, Exploratory and confirmatory factor analysis: guidelines, issues, and alternatives, *J. Organ. Behav.* 18 (6) (1997) 667–683.
- [107] L.T. Hu, P.M. Bentler, Cutoff criteria for fit indexes in covariance structure analysis: conventional criteria versus new alternatives, *Struct. Equ. Model.* 6 (1999) 1–55.
- [108] N. Asiamah, H.K. Mensah, E. Danquah, An assessment of the emotional intelligence of health workers: a scale validation approach, *Journal of Global Responsibility* 9 (2) (2018) 141–159.
- [109] S.N. Schutte, J.M. Malouff, L.E. Hall, D.J. Haggerty, J.T. Cooper, C.J. Golden, L. Dornheim, Development and validation of a measure of emotional intelligence, *Pers. Individ. Differ.* 25 (2) (1998) 167–177.
- [110] J. Alegre, J. Garau, Tourist satisfaction and dissatisfaction, *Ann. Tourism Res.* 37 (1) (2010) 52–73.
- [111] R. Babolian Hendijani, M. Sambasivan, S.I. Ng, H.C. Boo, Effect of gastronomy experience on overall satisfaction: differences between backpackers and mass tourists in Malaysia. *Reading on Hospitality and Tourism Issues*, 2013, pp. 107–123.
- [112] K. Kirillova, P. Wassler, Travel beautifully: the role of aesthetics in experience design, in: *Atmospheric Turn in Culture and Tourism: Place, Design and Process Impacts on Customer Behaviour, Marketing and Branding*, Emerald Publishing Limited, 2019, pp. 153–163.
- [113] M.A. Breiby, Exploring aesthetic dimensions in nature-based tourist experiences, *Tourism Anal.* 20 (4) (2015) 369–380.
- [114] T.H. Lee, A structural model to examine how destination image, attitude, and motivation affect the future behavior of tourists, *Leisure Sci.* 31 (3) (2009) 215–236.
- [115] A.H.N. Mak, M. Lumbers, A. Eves, R.C.Y. Chang, Factors influencing tourist food consumption, *Int. J. Hospit. Manag.* 31 (3) (2012) 928–936.
- [116] A. Venkatesh, L.A. Meamber, The aesthetics of consumption and the consumer as an aesthetic subject, *Consum. Mark. Cult.* 11 (1) (2008) 45–70.
- [117] A.F. Belt, *The Elements of Photography: Understanding and Creating Sophisticated Images*, Routledge, 2012.
- [118] D. Hauser, A. Leopold, R. Egger, H. Ganewita, L. Herrgessell, Aesthetic perception analysis of destination pictures using beautiful destinations on Instagram, *J. Destin. Market. Manag.* 24 (2022) 100720.

- [119] K. Kirillova, X. Fu, X. Lehto, L. Cai, What makes a destination beautiful? Dimensions of tourist aesthetic judgment, *Tourism Manag.* 42 (2014) 282–293.
- [120] K.F. Tieskens, B.T. Van Zanten, C.J. Schulp, P.H. Verburg, Aesthetic appreciation of the cultural landscape through social media: an analysis of revealed preference in the Dutch river landscape, *Landsc. Urban Plann.* 177 (2018) 128–137.
- [121] U.R. Orth, K. Malkewitz, Holistic package design and consumer brand impressions, *J. Market.* 72 (3) (2008) 64–81.