

# AN INVESTIGATION INTO THE ROLE OF PACKAGING DESIGN ELEMENTS ON PERCEIVED VALUE AND PRICE FAIRNESS: A MODERATING EFFECT OF AGE

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## Abstract

Packaging design is a crucial tool for strengthening product competitiveness among both in-store and online marketing. Companies are paying attention to improving competitiveness by taking advantage of logos, colors, graphics, and appropriate textual messages on packaging, with an aim to raise their market share relative to other competitors. For tourism entrepreneurs, a well-designed package is a crucial part of the marketing strategy. This can help them to stand out in a crowded market, communicate their local product message, and increase the likelihood of tourists' decisions to buy. The key purpose of this paper is to bridge a research gap in souvenir packaging design literature by investigating the causal relationships between the souvenir package design elements and perceived value, concerning price fairness and willingness to purchase food-related souvenirs. Data were gathered from a total of 402 respondents to investigate the causal relationships through Structural Equation Modeling analysis (SEM). The findings and implications may make valuable contributions for tourism entrepreneurs and souvenir packaging designers, in establishing the purchasing intentions of new and existing customers, and expanding the knowledge of visual package design theory in the souvenir industry.

**Keywords:** packaging design, perceived value, price fairness, willingness to purchase, souvenirs.

## 1. INTRODUCTION

In these times, identifying the effects of marketing stimuli among food-related products on consumer emotions, and perceptions, is necessary for creating effective marketing strategies (Nilforushan & Haeri, 2015). Consumers must choose from thousands of brands, while there can be more than 20,000 options for products in a single visit to the supermarket in a 30-minute shopping transaction (Belch & Belch, 1999). The average time for product recognition on the shelf is approximately one-seventeenth of

a second. Thus, the physical elements of the product must be noticeable and appealing for customer acceptance (Hussain et al., 2015; Kotler et al., 2008). Some of these marketing stimuli elements involve package design, which is an important factor for purchasing decisions (Mohebbi, 2014; Nilforushan & Haeri, 2015).

Marketers suggest that product display plays an essential role in the majority of impulse purchases, therefore there is a need for well-designed packaging in product displays (Ghani & Kamal, 2010). A well-designed package serves as a “silent sales-

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man”, while marketers can implement attractive packaging techniques to build relationships with customers, motivating them to buy products (Nilforushan & Haeri, 2015). Therefore, packaging is a crucial instrument for strengthening product competitiveness for both in-store and online marketing; companies can improve this competitiveness by taking advantage of logos, colors, graphics, and appropriate textual messages on the package to raise their market share relative to competitors.

In addition, many attractively-packaged souvenirs are “consumables”, as they require an appealing appearance to serve as attractive gifts (Ampuero et al., 2006, Nadeesha et al., 2019). Souvenir packages require functional benefits for protecting, identifying, and arranging the enclosed products, as well as offering emotional benefits for making them attractive and encouraging consumers to buy. Moreover, sales of souvenirs generate huge economic benefits for local communities and tourist destinations (Olalere, 2017). However, the challenge for local souvenir package designers is to design packaging related to the destination’s identity, while maintaining overall attractiveness, product information, the story behind the souvenir, and attractiveness as gifts, rather than simply seeking a strictly informative approach. In the current study, food-related souvenirs were chosen, as food souvenirs play an important role in shaping tourism destination image and the associated package design must be more unique and memorable to stand out from the typical product package design, evoking a sense of nostalgia and connection with the visitor (Chen et al., 2022).

Packaging design research on consumer behavior has mainly focused on products that consumers purchase for themselves rather than as gifts. The purpose of this research was to investigate the causal relationship between food-related souvenir package design elements and perceived value concerning price fairness and willingness to purchase. In addition, the findings of this study may contribute to souvenir packaging designers establishing the purchasing intention of new and existing

customers and expanding knowledge of visual package design theory in the souvenir industry. Regarding the practical contributions, the findings of this research will provide guidelines from a consumer perspective for product design and marketing strategy.

## **2. LITERATURE REVIEW**

### **2.1 Consumer Buying Behavior**

Consumer buying behavior has long been a topic in marketing literature. It is defined as any action taken by a person to obtain, use, and dispose of economic products and services, including elements of the decision-making process which lead to purchasing behavior (Engel, Blackwell and Miniard, 1995). However, consumer buying behavior is not considered static, but constantly changing, as customer buying features change over time according to marketing stimuli (Kotler et al., 2008).

For better understanding of which marketing stimuli in consumer products lead to consumers’ willingness to purchase, the importance of the relationship between packaging design and perceived value, to willingness to purchase, was investigated in the studies conducted by Setyowati et al. (2022). Therefore, this study aims to study the impacts of packaging design elements on consumer buying behavior in the food-related souvenirs industry.

### **2.2 Packaging Design Elements**

The packaging design elements can be described as a collection of parts that convey messages to consumers; the type of message conveyed depends on whether it is verbal or visual, with verbal aspects communicating information and visual elements evoking consumer emotions (Silayoi & Speece, 2004). According to Khuong & Tran (2018), a well-designed package is more than a salesperson, it’s a symbol of brand value. In the current study, the term “packaging design elements” refers to components developed by businesses

or brands that can be used to market products through the use of shape, material, colors, logos, and product images.

The importance of packaging design in conveying the brand or company message to target customers cannot be overstated. The elements of package design can determine a consumer's choices by influencing their decision-making process and buying behavior. Package design also plays an important role in preventing product losses (Khuong & Tran, 2018). The relevance of packaging in a company's communication mix is emphasized because packages are the final marketing communication instrument used before a purchase decision is made. Rundh (2005) proposed packaging design to trigger the purchase process, summarizing the benefits of the packaging design and consumers' future behavior.

Marketers and product designers must be aware of a package's attributes and possibilities for a specific type of package design, as well as consumers' perspectives and needs, from the beginning of any design project. It is easier to integrate visual elements with appropriate functions and appealing emotions that will attract buyers' attention when the sensory and informative parts of the package are well-designed and combined in a proper way (Ampuero et al., 2006). In the present study, packaging design elements consist of emotional factors (colors, graphics, and images of the product), and functional factors (product information, price label, sealed product-packaging, and the place of origin label).

### **2.2.1 Emotional Elements**

The emotional elements linked with packaging design increase the chance of a consumer buying decision. In food-packaging studies, pictures, colors, and graphics on packages are key predictors of food selection and can significantly influence consumers' food-associated emotions (Nadeesha et al., 2019). For this study, the emotional elements of packaging design consist of colors, graphics, and images of the product used on the package.

#### **2.2.1.1 Colors**

The color of the packaging improves brand recognition and generates a larger visual distinction. Furthermore, colors create emotional responses and enhance consumer memory of a specific product. About 62 to 90 percent of customers evaluate a product only on the basis of its packaging color (Singh, 2006; Khuong & Tran, 2018). Colors influence how consumers see a product. For example, for adult consumer perceptions, a higher intensity in product color signifies a higher intensity in taste and impacts the buying experience (Spence, 2016). Meanwhile, bright and vividly colored packaging appeals to children. In healthy food, a soft color implies lower levels of fat, sugar, and salt in the food product, producing an impression of health to consumers (Uzunoğlu & Sözer, 2020).

#### **2.2.1.2 Graphics**

According to Kuvykaite's study (2009) on packaging that attracts consumer attention, graphics on product packaging are one of the six elements (size, form, colors, material, flavor, and graphics) that must be taken into consideration by product designers. The result revealed that the impact of graphics on buyer decision-making may be strengthened and may increase consumer attention. When placing graphics on a package, designers should specify a graphic property that will be established when the product image is not attractive (Deliya & Parmar, 2012).

#### **2.2.1.3 Image of the Product**

The image on the package helps to capture the attention of consumers and serves as an emotional input when comparing and differentiating one brand from another (Underwood et al., 2001). About 50 percent of buyers claimed that they judge product quality by looking at the image of the product on its package (Wells et al., 2007). Product images and illustrations on packages identify products, describe their use, or create an emotional response in the buyers toward the product inside (Meyers & Lubliner, 1998).

## **2.2.2 Functional Elements**

Packaging design is a key component of a product that not only provides a functional benefit but also functions as a means of communicating product and brand information. Packaging must be functional in safeguarding products during the processes of transportation, storage, and frequent usage (Deliya & Parmar, 2012). In this study, the functional elements of packaging design consist of product information, price labels, product-sealing packaging, and place-of-origin labels.

### **2.2.2.1 Product Information**

Product information displayed on packages helps consumers in the process of comparing a product's quality and value to similar products from other brands (Deliya & Parmar, 2012). This information is usually about product weight, quantity, descriptions, instructions for consumption, names of manufacturers or stores, etc. Furthermore, while product information can reduce ambiguity and boost brand credibility, too much, misleading or inaccurate information might confuse buyers (Khuong & Tran, 2018). Regarding consumers' perception of health products, product information on labels promotes reliability and confidence among users. While verbal and visual information are sometimes preferred above packaging, consumers of baby products prefer verbal information due to consumer health concerns, and they will pay a higher price for products that are nutritionally labeled (Hussain et al., 2015).

### **2.2.2.2 Price Label**

For regular consumer products, first bias and intention are created based on the price label on the product package. A study of wine packaging showed that the price label was the most essential factor in wine selection, whereas closure, product information, colors, and label style were the least significant (Lockshin et al., 2009). Similar to the study of juice products, the analysis of the impact of price label, nutritional content, and product type on consumer behavior revealed that the

price label was an important factor for predicting consumer buying decisions (Lange et al., 2000).

### **2.2.2.3 Sealed Product-Packaging**

Sealed packaging performs an important role in preventing products from deterioration and prolonging their shelf life (Farooq et al., 2015). The sealed product-packaging for food products performs various functions based on its materials. For example, a plastic-sealed package can maintain the nutritional and sensory quality of the food (Cha & Chinnan, 2004), while a metal or aluminum-sealed package is often used to make food products relatively easy to store and deliver (Marsh & Bugusu, 2007).

### **2.2.2.4 Place of Origin Labels**

One of the main functions of packaging is to communicate the destination or the place of origin, increasing customer awareness about the product origins (Hellström & Saghir, 2007). Regarding food souvenirs, it is notable that most tourists are concerned about the origin of the food souvenir, with a more commercial attitude centered on the products, but linked to the location of origin for its individual value (Medeiros et al., 2017). Food-related souvenirs may be better than local products in that they allow travelers to share memories and experiences with their friends or relatives by giving a souvenir that evokes the specific look, taste, and scent of a destination when they return home (Hazman-Wong & Sumarjan, 2016).

In this research, we particularly look at both emotional and functional elements of packaging design as factors of perceived value, price fairness, and willingness to purchase. Emotional elements are considered those inherent to sensory marketing on the packages and consist of colors, graphics, and images of the product used on the packages (Deliya & Parmar, 2012; Khuong & Tran, 2018; Nadeesha et al., 2019; Uzunoğlu & Sözer, 2020). This study also considers the functional elements to be those showing product information with details on the packaging, price labels, product-sealing, and

place-of-origin labels on the packaging, but that affect how the packaging design appears to the consumers and leads to purchase decisions (Hazman-Wong & Sumarjan, 2016; Khuong & Tran, 2018; Medeiros et al., 2017).

## 2.3 Perceived Value

Perceived value is an overall concept that can be assessed as the consumer's perception of value through a single product item (Fernández & Bonillo, 2007). According to Aaker (1991), perceived value is a general intangible sense of consumers' perceptions toward a brand and is usually dependent on key factors including product performance and reliability, which are linked with consumers' overall evaluation and actual product benefits.

Companies should identify and specify the values of their target customers because customers interpret value differently, customers' perceived value influences their purchase behavior and brand preferences (Nilforushan & Haeri, 2015). "Perceived value" involves a ratio pointing to a trade-off between product or service quality and the price that reflects the buyer's overall assessment of the product or service utilities based on the buyer's impression of what is given and what they receive (Zeithaml, 1988).

Prior consumer product studies have proposed a direct positive relationship between packaging design elements and perceived value, with results revealing that the main factors influencing perceived value are color, graphics, and product information on packaging (Alhidari & Almeshal, 2018; Chuenban et al., 2020; Nadeesha et al., 2019). Similar to the food product packaging research, the results showed that buyer attitudes towards packaging elements have a positive relationship with the perceived value of food products and customers' willingness to purchase (Hussain et al., 2015; Martinez et al., 2018; Nilforushan & Haeri, 2015). The study results are consistent with those of previous research in souvenir packaging studies, which have proposed that visual packaging design positively influences perceived value and

price fairness (Khuong & Tran, 2018; Medeiros et al., 2017; Uzunoğlu & Sözer, 2020).

**Hypothesis 1:** Emotional elements of packaging design directly affect perceived value.

**H1a:** Color directly affects perceived value.

**H1b:** Graphics directly affects perceived value.

**H1c:** A picture of the product directly affects perceived value.

**Hypothesis 2:** Functional elements of packaging design directly affect perceived value.

**H2a:** Product information directly affects perceived value.

**H2b:** Price labeling directly affects perceived value.

**H2c:** Sealed product-packaging directly affects perceived value.

**H2d:** Place of origin labels directly affect perceived value.

## 2.4 Price Fairness

"Price fairness" is defined as a consumer's evaluation of whether the gap between a seller's price and the price of a comparable product is reasonable, or acceptable, involving the emotions that go along with it (Xia et al., 2004). Price fairness involves the principle of "dual entitlement" which is the idea that one party profits at the expense of another. When a company takes advantage of increased consumer demand by raising prices, consumers will not feel exploited or regard the prices as unfair (Herrmann et al., 2007). In the current study, price fairness is defined as an evaluation of the entire value and fairness of a product's pricing, considering both monetary and non-monetary expenses of a product acquisition.

Consumers' affective and behavioral responses to price discrimination are heavily influenced by inferences. The price fairness of policies, methods, and criteria employed by decision-makers to achieve their goals is referred to as "equity judgment" (Thibaut & Walker, 1975). The perception of price

fairness is formulated by packaging design and perceived value (Alhidari & Almeshal, 2018). Therefore, consumers compare prices with what are designated as reference points (i.e. past experiences, competitor pricing, and seller costs) in order to determine if the price is fair or not. These comparisons may result in a variety of evaluations: on the one side, favorable prices that are considered to be fair; on the other hand, unfavorable prices that result in a perception that prices are unfair (Encarnacion et al., 2013).

A review of the existing literature revealed a great deal of investigation into the relationship between packaging design and price fairness. The results of a bottled water packaging study indicated that packaging design elements had a direct impact on the perception of price fairness (Alhidari & Almeshal, 2018). This result is consistent with a previous study in consumer product packaging. Mirabi et al. (2015) revealed that visual packaging design and perceived value positively influence the perception of price fairness and the willingness to purchase. In airline industry research, results have indicated that higher perceived price fairness results when consumers perceived quality and value, with the service offered by the airline meeting their expectations (Khraim et al., 2014).

**Hypothesis 3:** Perceived value has a direct effect on price fairness.

## **2.5 Willingness to Purchase**

“Willingness to purchase” is the likelihood that a buyer will choose to buy a product or service, and it is closely linked to how confident he/she is that the product will fulfill their needs (Kupiec & Revell, 2001). Willingness to purchase may be changed during the purchasing process under the influence of actual product attributes, as well as perceived quality and value (Gogoi, 2013). However, as there are many similar products in the same category, customer decision-making processes are growing more complex, while they

are also influenced by both external and internal motivations during the purchasing process. This study focuses on consumers’ willingness to purchase food-related souvenirs, by investigating the causal relationships between packaging design, perceived value, price fairness, and willingness to purchase.

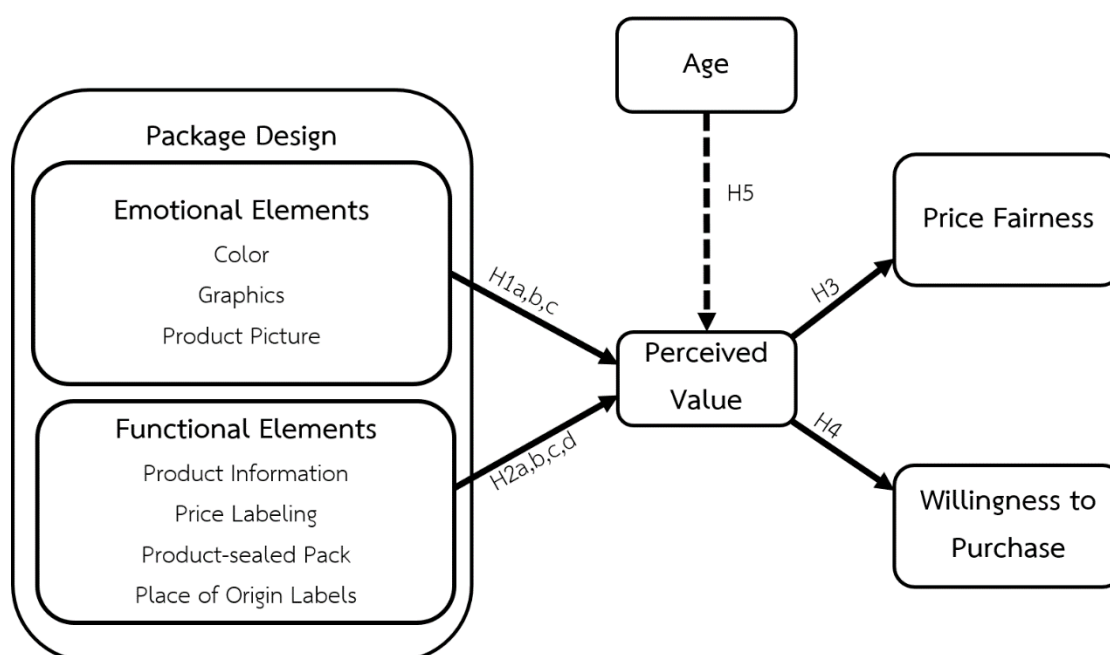
Willingness to purchase has been used to predict actual purchases according to a variety of research articles. The visual packaging design has a significant effect on the process of food product purchases due to its role in establishing a direct link between buyers’ value perception and future behavior (Mirabi et al., 2015). In consumer product marketing, packaging design elements significantly affect willingness to purchase (Khuong & Tran, 2018; Nadeesha et al., 2019; Uzunoğlu & Sözer, 2020). In addition, perceived value plays an essential role in predicting willingness to purchase (Alhidari & Almeshal, 2018; Medeiros et al., 2017). Similarly, when customers prefer well-designed packaging that offers memorable value or perceived quality, customers are more willing to purchase the products of that specific brand.

**Hypothesis 4:** Perceived value has a direct effect on willingness to purchase.

## **2.6 Moderating Effects of Age**

Previous studies (Mohammad et al., 2018; Tarhini et al., 2014; Triphthi, 2018) observed that age is a key demographic factor moderating consumer intentions. Triphthi’s (2018) results showed that younger consumers are least influenced by quick decisions, unlike older users. Some researchers suggested that as age increases, the level of emotional intelligence does not synchronously increase (Mohammad et al., 2018). Therefore, this study also hypothesized there is a moderating effect of age on the relationship between packaging design and perceived value.

**Hypothesis 5:** Age has a moderating effect on the relationship between packaging design elements and perceived value.



**Figure 1** Research Framework

### 3. RESEARCH METHODOLOGY

#### 3.1 Data Collection and Samples

The perceived value linked with price fairness and willingness to purchase, as presented in the previous section of this research, has a great impact on buyers' tendency to buy food-related souvenirs with regard to different packaging designs. A quantitative research method was used to investigate the relationship between the exogenous and endogenous variables proposed previously. An online self-administered questionnaire was developed with the aim of studying packaging design theory and its effects on the different dimensions of perceived value, price fairness, and consumers' willingness to purchase food-related souvenirs on the basis of a conceptual framework. The online questionnaire consisted of 40 questions which were divided into three sections: general information, packaging design questions, and informants' perceptions on the dimensions of consumers' perceived behavior, price fairness, and willingness to purchase.

The target population involved customers who had experience buying food-related

souvenirs at least once in Thailand. Using convenience sampling and a Structural Equation Modelling (SEM) technique for investigating the collected data, Hair (2010) suggested that there should be 10 times the number of research samples per estimated parameter. There are a total of 40 observed variables in this study. As a result, data were collected from a total of 402 respondents to investigate these causal relationships through Structural Equation Modeling analysis (SEM). The questionnaire was available online from November to December 2021 and was distributed through Facebook groups and other social media channels.

#### 3.2 Research Measurements

Food-related souvenir packaging design research measurement items were categorized into 2 elements consisting of emotional (colors, graphics, and images of the product on the packaging) and functional elements (product information, price labels, sealed product-packaging, and place-of-origin labels) based on the packaging design questionnaire developed by Medeiros et al. (2017) and Simmonds et al. (2018). The emotional and functional elements included ten, and thirteen

items respectively, both using a five-point Likert scale from 1 (entirely disagree) to 5 (entirely agree).

The measurement items of perceived value on packaging design were adapted from Chuenban et al. (2020). A total of 6 price fairness measurement items for packaging design were adapted from Alhidari & Almehsal (2018), and the measurement of willingness to purchase was adapted from Nadeesha et al. (2019). All measurement scales included four items each with a five-point Likert scale from 1 (entirely disagree) to 5 (entirely agree). All measurement items were checked for content validity with the Item-Objective Congruence (IOC) analysis by 3 experts, most of which produced scores greater than 0.5. The questionnaire content was then adjusted, in accordance with the values of less than 0.5 and the appropriate items as suggested by the experts.

### **3.3 Reliability Tests and Convergent Validity**

Table 1 shows that most of the variables have Cronbach's alpha values greater than 0.7, indicating that the internal consistency of all items is acceptable (Churchill, 1979). Cronbach's alpha values greater than 0.6 are likewise acceptable, according to some researchers' interpretations of variable consistency (Hair et al., 2010). The results indicated that all measurements employed in this research were valid according to the reliability analysis since they yielded values over 0.7.

"Convergent validity" is defined as the degree to which two measures of the same concept are associated (Hair et al., 2010). Hair et al. (2010) also recommended that studies assess convergent validity using factor loadings, composite reliability (CR), and average variance extracted (AVE). The item loadings and average variance extracted (AVE) should be higher than the suggested value of 0.50, and ideally 0.70 or higher

(Hair et al., 2010). Furthermore, composite reliability (CR) values show the extent to which the construct items reveal the latent variables, and they should be greater than 0.6, as researchers have previously noted (Hair et al., 2010).

As shown in Table 1, the factor loadings and average variance extracted (AVE) were all above 0.50, while the composite reliability values were all higher than 0.60. The measurements were therefore adequately reliable. Accordingly, the analysis phase of the structural model can be employed to investigate the proposed hypotheses.

## **4. RESULTS & DISCUSSIONS**

The measurement construct model described by exploratory factor analysis was tested using confirmatory factor analysis (CFA). "Model fit" was assessed using a variety of indices. Chi-square ( $\chi^2$ ) is thought to be significant at a p-value lower than 0.05 if a research sample is larger than 250 cases (Hair et al., 2010). A chi-square/df lower than 5.0 indicates fit while lower than 3.0 is considered a good fit for the measurements. The comparative fit index (CFI) should be greater than 0.90, while the goodness of fit index (GFI) should be greater than 0.80, and the root mean square error of approximation (RMSEA) should perform at less than 0.07 to correlate with an acceptable model fit (Hair et al., 2010; Hair et al., 2015). As indicated in Table 2, the initial model was examined which revealed that CFI, GFI, and RMSEA values were unacceptable. Two observed variables from perceived value (PV5 and PV6) were considered removable for adjusting the model based on the suggested fit indices. Hence, the overall measurement model was found to be an acceptable fit for investigating further causal relationships in this study:  $\chi^2/d.f.=2.65$ , CFI=0.90, GFI=0.85, and RMSEA=0.064.

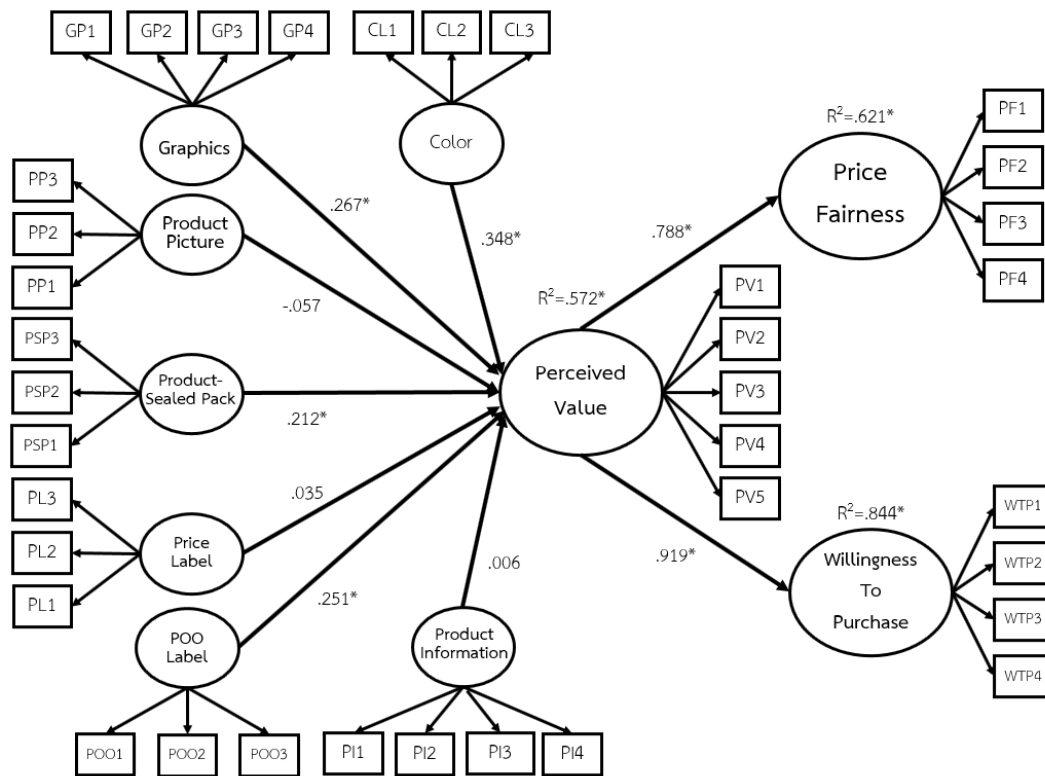


**Table 1** Convergent Validity and Measurement Model

Construct	Items	Loadings	CR	AVE
Color ( $\alpha=.80$ )	CL1	.843	.714	.882
	CL2	.885		
	CL3	.805		
Graphics ( $\alpha=.86$ )	GP1	.755	.714	.908
	GP2	.883		
	GP3	.843		
	GP4	.891		
Product picture ( $\alpha=.85$ )	PP1	.830	.769	.909
	PP2	.899		
	PP3	.901		
Sealed product-package ( $\alpha=.75$ )	PSP1	.854	.663	.855
	PSP2	.854		
	PSP3	.729		
Price label ( $\alpha=.90$ )	PL1	.911	.829	.936
	PL2	.934		
	PL3	.886		
Place-of-origin label ( $\alpha=.90$ )	POO1	.920	.838	.939
	POO2	.935		
	POO3	.891		
Product information ( $\alpha=.90$ )	PI1	.847	.778	.934
	PI2	.900		
	PI3	.899		
	PI4	.882		
Perceived value ( $\alpha=.82$ )	PV1	.760	.849	.585
	PV2	.790		
	PV3	.782		
	PV4	.727		
	PV5	.762		
	PV6	.637		
Price fairness ( $\alpha=.78$ )	PF1	.763	.606	.860
	PF2	.753		
	PF3	.801		
	PF4	.796		
Willingness to purchase ( $\alpha=.83$ )	WTP1	.798	.667	.889
	WTP2	.826		
	WTP3	.858		
	WTP4	.783		

**Table 2** Comparison Between Initial Model and Adjusted Model

Model	$\chi^2$ (p-value)	$\chi^2/\text{df}$	CFI	GFI	RMSEA
The initial model	2143.20 (0.00)	3.58	0.83	0.78	0.08
The adjusted model	1350.70 (0.00)	2.65	0.90	0.85	0.064
Cutoff criteria	< 0.05	< 5.0	> 0.90	> 0.80	< 0.07



**Figure 2** Results of Path Analysis

**Table 3** Hypotheses Results

Hypotheses	Path coefficient	p-value	Results
H1a: Color → PV	0.348	0.000	Supported
H1b: Graphics → PV	0.267	0.000	Supported
H1c: PP → PV	-0.057	.346	Not supported
H2a: PSP → PV	0.212	0.000	Supported
H2b: PL → PV	0.035	0.433	Not supported
H2c: POO → PV	0.251	0.000	Supported
H2d: PI → PV	0.006	0.922	Not supported
H3: PV → PF	0.788	0.000	Supported
H4: PV → WTP	0.919	0.000	Supported

#### 4.1 Structural Equation Modeling (SEM) and Hypotheses Testing Results

The results of the path analysis in the construct model are shown in Table 3. Color, graphics, sealed product-packaging, and place-of-origin labels, all had a positive, direct effect on perceived value (Path coefficients = 0.348, 0.267, 0.212, and 0.251, respectively). Perceived value also had a significant direct effect on price fairness and willingness to purchase (Path coefficients =

0.788, and 0.919, respectively). However, pictures of products, price labels, and product information were found to have an insignificant effect on perceived value. Thus, the results support H1a, H1b, H2a, H2c, H3, and H4.

The results for Hypothesis 1 indicate that the colors and graphics of the package design significantly influence perceived value. These findings are in line with the existing literature indicating the significant effects of emotional elements for package design (Deliya &

Parmar, 2012; Khuong & Tran, 2018; Uzunoğlu & Sözer, 2020). The results of Hypothesis 2, which proposed a causal relationship between the functional elements of packaging design and perceived value, revealed that sealed product-packaging and place-of-origin labels had positive significant effects on perceived value with standard coefficients of 0.212 and 0.251 at the 0.01 level. These findings are supported by previous empirical studies (Hussain et al., 2015; Medeiros et al., 2017; Mohebbi, B., 2014). However, price labels and product information showed an insignificant impact on perception and were not supported by previous empirical results. In the context of souvenir buying, the price label is ineffective in terms of the receivers' perspective but buyers may need a clear price label on packaging when they buy the product for themselves. Meanwhile, product information is also not a key factor, due to the fact that the food-related souvenir is a product about which people are concerned with the taste and originality over nutrition facts, ingredients, product stories, or other information.

Hypothesis 3 and Hypothesis 4, which proposed the effects of perceived value on price fairness and willingness to purchase, were found to have significant effects. These results were consistent with previous studies (Alhidari & Almeshal, 2018; Nadeesha et al., 2019; Uzunoğlu & Sözer, 2020). Overall, results showed that consumer buying behavior can be influenced by perceived value and packaging design elements. Most consumers make their purchase decisions

based on the functional elements of packaging design. Hence, these results were supported by previous empirical literature (Medeiros et al., 2017; Khuong & Tran, 2018; Uzunoğlu & Sözer, 2020) and proving that consumers are attracted by packaging colors, graphics, sealed product-packaging, and place-of-origin labels.

## 4.2 Moderating Effects of Age

The research also employed multigroup analysis to analyze the moderating effects of respondents' ages. The entire sample was divided into 3 subgroups according to age which included the groupings younger than 24, those aged 25 to 44 years, and those over 45 years. The collected data set was thus split into sub-samples of 141, 134, and 127 cases, respectively.

Table 4 shows that the structural model results for the three different age groups (including all respondents), moderated the relationship of color, graphics, pictures of products, sealed product-packaging, price labels, place-of-origin labels, product information, and perceived value. The effect of color on perceived value had a significantly higher impact for the middle age group (25-45 years) with a standardized coefficient of 0.655 (p-value = 0.000), while color had an insignificant effect on the older age group of respondents. The positive effect of graphics on perceived value appeared to be relatively significant ( $\beta = 0.286$ , p-value = 0.045) only for the young age group (below 24 years). On the other hand, product pictures had a

**Table 4** Structural Model Results for the Moderating Effect of Age

Hypotheses	Less than 24 years		25-44 years		More than 45 years	
	$\beta$	p-value	$\beta$	p-value	$\beta$	p-value
H1a: Color $\rightarrow$ PV	.224*	.044	.655*	.000	.038	.213
H1b: Graphics $\rightarrow$ PV	.286*	.045	-.064	.634	.025	.934
H1c: PP $\rightarrow$ PV	-.023	.826	-.635*	.000	-.077	.669
H2a: PSP $\rightarrow$ PV	.275*	.007	.363*	.007	.245*	.049
H2b: PL $\rightarrow$ PV	-.034	.664	-.596*	.000	.088	.189
H2c: POO $\rightarrow$ PV	.325*	.000	.609*	.003	.552*	.000
H2d: PI $\rightarrow$ PV	.043	.620	.686*	.004	-.087	.493

\*p = 0.05 Rejects the Null Hypothesis.

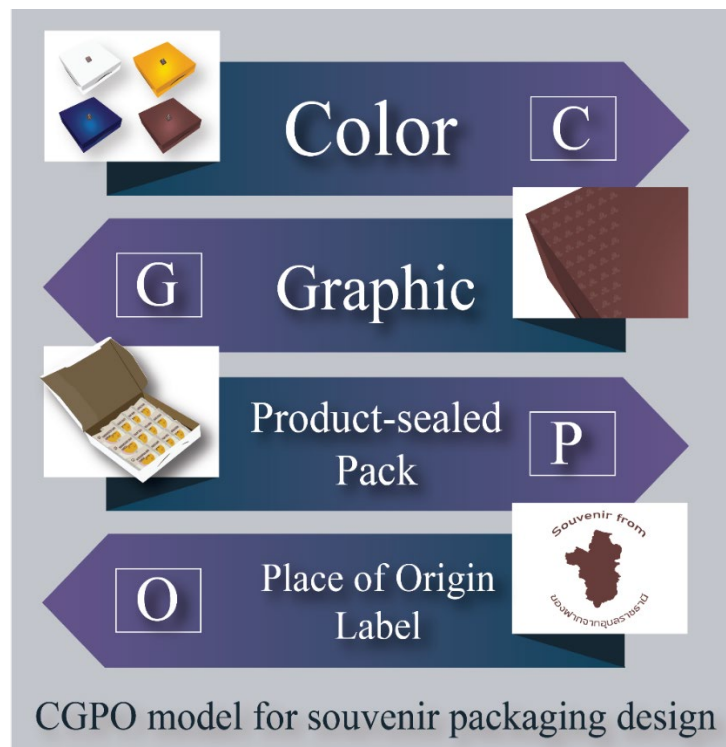
negative effect on the perceived value only in the case of the middle age group, with a standardized coefficient of -0.635 (p-value = 0.000). All groups of respondents showed a significant effect of sealed product-packaging on perceived value. However, this element was expressed relatively more strongly in the middle age group of respondents ( $\beta = 0.363$ , p-value = 0.007). The significant effect of price labels only had a negative effect on the middle age group of respondents ( $\beta = -0.596$ , p-value = 0.000). The effects of a place-of-origin label on perceived value were positively significant for all groups of respondents. However, this element was expressed relatively more strongly for the middle age group of respondents ( $\beta = 0.609$ , p-value = 0.003). Similarly, the positive effect of product information on perceived value appeared to be stronger only in the case of the middle age group, with a standardized coefficient of 0.686 (p-value = 0.004).

Regarding Hypothesis 5, the findings revealed that age had a moderating effect on the relationship between package design and perceived value; these results are directly linked with the findings of Mohammad et al.

(2018) and Triphthi (2018). The older age group of food-related souvenir buyers rarely attach importance to emotional design, but they value the hygiene and the flavor of food-related souvenirs. The middle age group emphasized the image and many other well-designed factors on souvenir packaging. Meanwhile, the younger group placed importance on the graphics of the souvenir packaging, such as watermarks and typography.

## 5. RESEARCH IMPLICATIONS

This study's findings have several managerial implications for souvenir designers, tourism entrepreneurs, and marketers. The CGPO model is proposed for souvenir packaging design as shown in Figure 3. First, the results highlight the significance of package design elements as predictors of tourists' purchase intentions. Most tourists judged a price increase for well-designed and well-packaged food-related souvenirs to be fair and worth giving to their friends or relatives, though the food quality was similar to normally-priced souvenirs.



**Figure 3** CGPO Model for Souvenir Packaging Design

The key purpose of this paper was to bridge a research gap in souvenir packaging design literature by investigating the causal relationships between souvenir package design elements and perceived value concerning price fairness and willingness to purchase food-related souvenirs. The findings revealed that different ages of consumers may have different perceptions regarding souvenir package design and behavioral intentions. Souvenir entrepreneurs should understand and separate groups of customers based on their age, with packaging designs based on the significant factors proposed in the previous section. For example, younger tourists (those under 24 years old) favor the graphics on souvenir packages. The middle-aged group's opinion, however, is not preferable to the product images on souvenir packages. In addition, sealed product-packaging and product originality labels play essential roles for all age groups of consumers, and therefore, souvenir entrepreneurs should emphasize these elements.

A higher price increases the perceived value of the product. Consumers are willing to pay more if the product is well-designed. The product quality and its package may synchronously be keys for decisions to purchase for familiar customers, while first-timers may be attracted by the product package for their first decision. Similarly, for traveler visits and the enjoyment of new experiences and places where they have never traveled before, the souvenirs should have an attractive appearance to appeal to travelers unfamiliar with them, to purchase them for their family, friends, or relatives.

The results also provide a theoretical implication that expands the knowledge of packaging design theory, the findings showed that emotional (colors and graphics) and functional elements (sealed product-packaging and place-of-origin labels) can evoke a positive consumer buying decision. The CGPO Model is suggested as a way to increase understanding of package design theory in relation to souvenirs.

## 6. RESEARCH LIMITATIONS AND FUTURE STUDY

One limitation of the research on individual differences in tourists' preferences towards souvenirs is that it may only reflect the preferences of a specific group of the sample or population, which may not be representative of all tourists. For example, the current study only focused on the overall results of package design elements from a variety of age groups. Cultural backgrounds, or income levels, may also affect consumers' souvenir preferences and buying decisions. Therefore, in order to better understand consumer preferences and develop more specific marketing strategies, future research may concentrate on looking at the various customer segmentations using multigroup and moderation analysis with a Structural Equation Modelling (SEM) technique.

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