

Application of Regional Culture Features into the Product Packaging Design to Improve the Traditional Foods Packaging and Enhance Consumers Satisfaction

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Abstract

Features of regional culture have been considered for application in regional foods packaging design since it can effectively enhance the cultural value of regional traditional foods. This study aims to understand the impact of regional cultural features on regional traditional foods; then analyzing the design approach of application regional cultural features into packaging design on the traditional foods packaging; and finally, exploring the influence of traditional foods packaging design with regional cultural features on consumer satisfaction. The results proposing a conceptual framework for improving the regional traditional foods packaging design to enhance consumer satisfaction. The proposed conceptual framework recommends that by applying the different dimensions of regional cultural features to traditional foods packaging design, designers can design product packaging which helps to enhance the cultural value of the product. This study recommends further research into how packaging design and regional culture promote the image of traditional foods. The results are significant because they will help designers effectively improve regional traditional foods packaging design to enhance consumer satisfaction.

Keywords: *Regional Culture, Traditional Foods, Consumers Satisfaction, Packaging Design.*

Introduction

In the highly competitive global food industry, packaging has become an integral part of logistics and marketing, excellent packaging must balance practicality and market appeal. Regional traditional foods reflect local history and culture, and packaging that highlights these cultural elements can provide consumers with a richer cultural connotation. Therefore, in the context of globalization, such designs reflecting cultural connotations can enhance product market competitiveness. However, a lack of guidelines for integrating these cultural features in packaging design challenges designers and enterprises in promoting regional traditional foods.

The food of a country or region is one of its most important cultural expressions (Handszuh, 2003), and its industry is the key for enterprises and governments to promote regional features and tourism development. Packaging plays an important role as a medium to publicize and promote traditional regional foods. Therefore, the rational application of traditional cultural elements is conducive to the local food packaging to reach a broad cultural identity with consumers and enhance market competitiveness. This research aims to develop guidelines for applying traditional regional culture in packaging design, suggesting that packaging with cultural characteristics can resonate with consumers and enhance the cultural significance of products.

Research on the interplay between traditional regional culture, packaging design, and consumer satisfaction has largely been independent. packaging is an important source of information for consumers in making purchasing decisions (Underwood & Ozanne, 1998), For consumers, utilizing traditional culture can satisfy their emotional demands and enable them to establish a cultural identity with the product. This study aims to integrate regional cultural elements into packaging to provide designers with innovative strategies to enhance the cultural appeal of products and satisfy the demands of consumers. This paper investigates how

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integrating traditional regional cultural elements into packaging design can elevate the cultural value of product, potentially enhancing consumer satisfaction and promoting local culture and tourism.

Research Methodology

This study has followed the "Systematic Literature Review Synthesis Process". The process is a unique and novel approach to literature review which identifies the theoretical environment and context of each area by understanding and summarizing the existing literature at the initial phase of research conceptualization. The authors used Ibrahim (Ibrahim, 2008, 2011) research question construct categorization technique to identify three different research question constructs, namely 'WHO', 'WHAT' and 'HOW', in order to formulate the main research question.

This study based on the research of Ibrahim that defined the "WHO" structure as the elements affected by the research, the "WHAT" structure as the theory and knowledge system needed to solve the problem, and the "HOW" structure as the action or influence on the research elements (Ibrahim, 2011). This study defines regional cultural features as "WHAT", its application to packaging design as "HOW1", and consumer satisfaction as "HOW2". This study attempts to answer the following research questions: (1) What is the impact of regional cultural design features on regional traditional foods? (2) How can packaging design be combined with regional cultural elements to improve the image of traditional foods? (3) What is the impact of traditional foods packaging design with regional cultural features on consumer satisfaction? According to the questions and research objectives of this study, a literature search was conducted in Scopus, Springer, ScienceDirect, CNKI databases as well as Google Scholar databases with the following keywords: regional culture, packaging design, consumer satisfaction.

The authors then reviewed the abstracts of the selected journals for which the sub-themes of the articles were pre-selected on the basis of the abstracts. Guided by the E.A.G.L.E. navigation system, 70 of these abstracts were selected for detailed review in this study and then categorized into specific sub-themes based on their content. The results of this work will produce a consolidated abstract for each theme. The study will then discuss cross-analysis, integrate possibilities and prioritize synthesized information in order to analyse the impact of traditional foods packaging design featuring regional cultural elements on consumer satisfaction. The main synthesis summary is formed by following the steps in the Point of Departure (POD) tree diagram as well as the synthesis process document. Figure 1 shows the flowchart of the literature review methodology for this research.

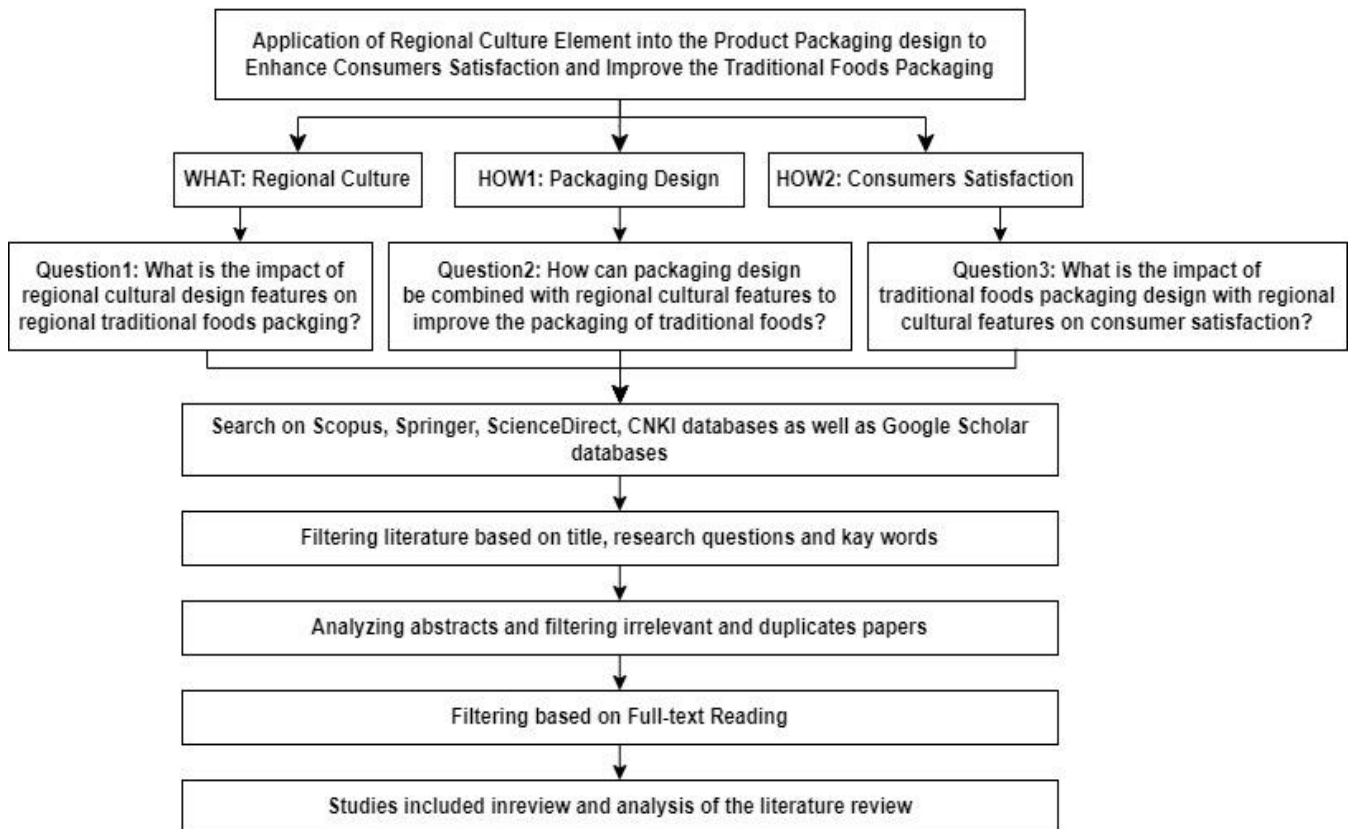


Figure 1. The workflow of the systematic literature review synthesis process adapted with permission (Ibrahim & Mustafa Kamal, 2018)

Results

What Is the Impact of Regional Cultural Design Features on Regional Traditional foods Packaging?

Regarding the definition of regional culture, Touloupa (2010) explains that regional culture encompasses regional identity, local traditions and life experiences. It reflects the beliefs, attitudes, customs, aesthetics, emotions and lifestyles of the inhabitants of a region and fosters a sense of regional identity. This section will first investigate the layers and features of regional cultural design and then evaluate its value and impact on local traditional foods.

The Layers of Regional Culture

Culture is often described as the shared values, beliefs, and norms within a community that are the core of understanding a social framework (Leong & Clark, 2003). The fact that the definition of culture varies between fields reflects the different theories underlying academic understanding of human activity. For this study the way to understand culture is firstly through an examination of the layers and hierarchies of its cultural theories, because the culture is composed of different layers (Hofstede et al., 2020). Cultural studies as a discipline has evolved significantly since the early 20th century, with extensive documentation and theoretical grounding, focusing largely on both tangible and intangible aspects of culture (Rahman & Abedini, 2017).

In many scholarly discourses, culture is viewed as a hierarchical construct. According to the research of Hofstede (2011) that culture can be categorized into four dimensions: symbols, heroes, rituals, and values. Symbols are defined in this model as being words, gestures, pictures, or objects with specific meanings that have meaning only when they are shared within a culture and it represents the outermost layer of culture. Heroes can define patterns of behavior that are honored in a culture through their actions or accomplishments. Rituals consist of collective activities that are considered essential within a cultural context. The core of a culture is made up of values, often unconscious, but which have a profound effect on individual perceptions and behaviors.

Moreover, culture has both tangible and intangible components (Reyes, 2020). The "iceberg model of culture" likens culture to an iceberg, indicating that only around 10% is visibly evident like food, music, and language, while 90% consists of deeper cultural norms and values (Sasu, 2016). This submerged portion represents profound and extensive unseen factors that often require outsiders years to comprehend fully (Katan, 2009). Furthermore, there are studies that extend the iceberg theory through the "Triad of Culture" model. The model consists of three layers, which are technical culture, formal culture and informal culture. (Sulaiman & Wilson, 2018).

Moreover, In the Onion model by Trompenaars & Charles (2011), culture comprises three layers. an outer layer of tangible artifacts such as language and art, a middle layer of norms, and a core layer of how human beings adapt to their survival environment. Furthermore, Different disciplines also have interpretations of the different layers of culture. From a design perspective, Lee (2004) put forth a multi-layered cultural structure encompassing 'artifact', 'value', and 'basic assumptions'. Leong & Clark (2003) also proposed a three-layered framework of cultural objects: tangible, behavioral and intangible. Drawing from these and other studies, a three-layered framework was summarized by Lin (2007) for cultural objects emerges: (1) Physical or Material culture which covers food, garments, and transportation, (2) Social or behavioral culture focusing on human relationships and societal structures, and (3) Spiritual or ideal culture embracing art and religion (R. Lin, 2007). Despite extensive research on the culture layer, current research is still in its infancy, largely due to the evolving and subjective nature of culture.

In general, This study endorses the theories of Trompenaars & Charles (2011) and Sulaiman & Wilson, (2018), who have greatly guided the design of this study. In addition, this study agrees with Leong and Clark (2003) that cultural elements can be divided into three layers in the study of cultural objects: the external "tangible" level, the intermediate "behavioral" level, and the internal "intangible" level. Finally, according to Lin's (2007) research and discovery, this study focuses on the physical or Material culture level, social or behavioral level and spiritual or ideal culture levels of regional cultural. As a conclusion, the study found that the various layers and models on culture enumerated in this section have summarized culture broadly into three layers: the outer tangible level, the intermediate level and the inner intangible level. Based on this framework, this study further explores the influence of regional culture on food packaging design to meet the demands of consumers from different dimensions of local culture.

Design Translation of Regional Culture

The diversity of regional cultures provides important inspiration for design, especially in the global market. Incorporating local cultural elements into traditional products is becoming increasingly important (Sun et al., 2022). This integration not only differentiates products, but is also crucial for establishing a unique product identity and helps the product retain its cultural essence (Jackson, 2014). Therefore, translating regional cultural features into design features to highlight their cultural value is a key concern for all design fields.

With the advancement of standardized production modes, the emphasis on regional cultural factors in product design seems diminished. Nonetheless, many researchers still underscore the significance of regional culture in design (Chai et al., 2015). Some studies suggest that designers should respect the choices and desires of consumers by preserving regional cultural values in their designs (Li et al., 2008). Additionally, cultural disparities can shape user attitudes towards products, underlining the crucial role of cultural insights in design (Celhay et al., 2019). Therefore, the application of regional cultural factors in the design process

plays a crucial role in understanding local regional cultural life and habits.

Currently, as the consumption market gradually develops in a customer-centered manner, the design process is increasingly emphasizing the diversity of cultural characteristics (Hsu et al., 2011). In this context, some scholars have asserted that it is imperative for any design to be adapted to local cultural practices and lifestyles of daily life. This view does encourage designers to design regional products according to the regional cultural background of the users (C. Lin et al., 2016). Furthermore, one of the important factors affecting the success of a design is the consideration of cultural characteristics beyond the purely technical solutions. Undoubtedly, regional cultural constraints such as behaviors, beliefs and manners also deserve attention in the design process (Piqueras-Fiszman & Spence, 2015). Therefore, designers should endeavor to explore with the interactive experience between cultural attributes and design functions, and validating the added value of culturally immersive designs in meeting user expectations in modern design, culture stands as a cornerstone, steering innovation and enhancing product resonance, boosting user satisfaction. a design significance of product is rooted in culture, often mirrored in its form and function (S. Zhu & Luo, 2013). Many studies explore the integration of culture into design. For instance, Moalosi et al. (2010) through their examination of cultural product design in Botswana, highlighted how Botswana's cultural essence spurs inventive design. Their proposed Culture-Oriented Design (COD) model, a three-tiered approach, categorizes cultural elements, integrates them, and results in culturally attuned products.

Regional cultural design features are closely related to the layers and development of regional cultures. R. T. Lin (2007) identified the following three design features when incorporating cultural objects into cultural design based on previous research and based on Leong's categorization of cultural levels (Leong & Clark, 2003), The structure can be described as: the features of inner layer, encompassing unique elements like narratives, feelings, and cultural attributes, the features of middle layer, focused on functionality, usability, operations, and safety, and the features of outer layer, concerning aspects like color, texture, shape, adornments, graphic, textual and material.

Lin further expanded on this by correlating it with Norman's three aspects of "Emotional Design" elements, namely the visceral, behavioral, and reflective levels (Norman, 2004). The visceral component accentuates the visual allure of cultural elements, vital in forming first impressions. The behavioral element champions a product's practicality, spotlighting functionality and user-centric design. Conversely, the reflective facet probes deeper, touching upon emotional and cognitive experiences in cultural interactions. Importantly, reflective design attributes remain malleable, influenced by cultural nuances, experiences, education, and individual differences (Sun et al., 2022)(Fig. 2). the model of Lin offers designers a systematic approach to derive design elements from products and integrate cultural aspects into them consistently.

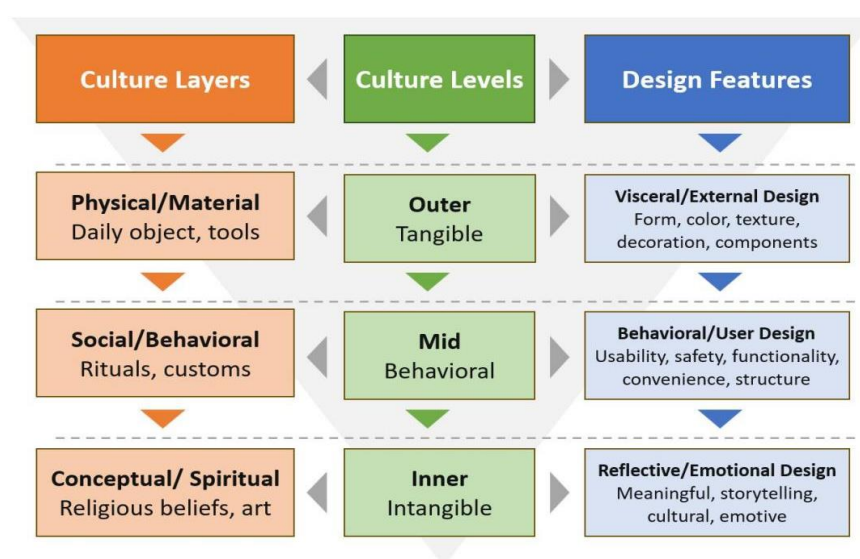


Figure 2: Three layers and levels of cultural objects and design features adapted with permission (Lin, 2007).

In general, this study agrees with and supports Lin's (2007) summary and analysis of categorization of regional cultural design features. then, authors supports and refers to Chai et al. (2015) research and methodology to examine and analyze the application of regional culture in design, and to analyze the elements and characteristics of regional culture and product packaging design. Moreover, this study proposes to explore the design characteristics of regional culture from the visceral level, behavioral level, and reflective level, which is beneficial for designers to apply more elements of regional culture in product and packaging design more extensively.

The Impact of Regional Culture Design on Regional Traditional foods Packaging

Regional cultural design plays a vital role in the design and development of regional traditional foods packaging. As an important part of a regional culture, the traditional foods not only reflects the material culture and living customs of local residents, but also represents profound history, values and cultural traditions (Guerrero et al., 2016). The concept of local traditional foods has been interpreted diversely in academic circles. Jordana (2000) explores from a sociological perspective that traditional foods must be rooted in the local culture to ensure their geographical long lasting. Tu (2021) claimed that in China, traditional food has specific ethnic or regional characteristics and emphasizes on handcrafted and master-apprentice teaching system. Essentially, Regional traditional foods respond to the culture and lifestyle of a region, and regional cultural design gives them more meaning and expression.

Globalization brings the risk of homogenization of packaging design and destroys regional food packaging uniqueness (Zuo, 2022). However, the integration of regional cultural elements into packaging can enhance the appeal of the product and promote the development of the traditional food industry (R. T. Lin, 2007), and this approach is critical to the success of product packaging design. First of all, regional cultural design gives traditional food packaging unique recognizability. Regional culture is characterized by uniqueness, diversity, inheritance and permeability (Jie, 2020). Wang et al. (2023) emphasize that integrating its characteristics into packaging can strengthen the cultural connection with consumers, which is particularly important for regional food enterprises, which can focus on regional uniqueness in their design strategies. Therefore, it is important to insert cultural symbols into packaging to strengthen the cultural attributes and market competitiveness of the product.

Moreover, regional cultural design can effectively inspire the emotional resonance of traditional foods packaging. The motivation of consumers has transformed from material pursuit to the spirituality pursuit (Geng et al., 2023). integrating regional cultural elements into packaging contributes to the harmonious integration of culture and products from all aspects of design. This design synchronization can enable consumers to develop a deeper attachment to the culture (Zhang, 2018). In addition, regional design can enhance the cultural value of traditional food and packaging. Packaging has gradually begun to play an important role as a vehicle for spreading social and cultural values. Through regional cultural design, regional traditional customs, history and culture, and national values can be integrated into packaging design to give deeper cultural connotations to regional foods.

In general, this study supports Wang et al. (2023) view that regional cultural design can enhance the recognition and increase the uniqueness of regional traditional foods through packaging design, thus promoting the cultural value of local food products and packaging. This study recommends the view of Zhang (2018) that regional culture can effectively enhance the emotional value of traditional foods products and create a deep emotional link with consumers through packaging design. This research posits that regional cultural elements can serve as a pivotal foundation for design inspiration. It further delineates that cultural information can be deconstructed and extracted through a tripartite framework: tangible, intermediate, and intangible levels. When these levels synergize with the design elements, they will contribute to a richer interpretation of regional culture. This study concludes that regional cultural design can not only express the connotation of regional culture from different levels, but also influence the

regional traditional foods packaging design and increase its regional cultural value.

The Process of Conceptual Framework Formation

This section aims to explore how regional cultural features influence and enhance traditional food packaging. Regional traditional food is an important part of local culture, and its packaging is both a protective container and a medium for conveying culture and attracting consumers. The results of the research in this section show that integrating local cultural characteristics into product packaging and utilizing innovative design to provide local traditional food packaging with a unique charm can have a positive impact on the development of the traditional food industry in the region. To summarize, this section intends to take the regional cultural features as the entry point to screen and apply the cultural information through the three dimensions of tangible, intermediate and intangible, combined with the expression of design. The research results show that displaying and expressing the essence of regional culture from different dimensions can influence regional traditional food packaging design in an all-round way and enhance its cultural value and regional cultural characteristics. Figure 3 is the proposed conceptual framework

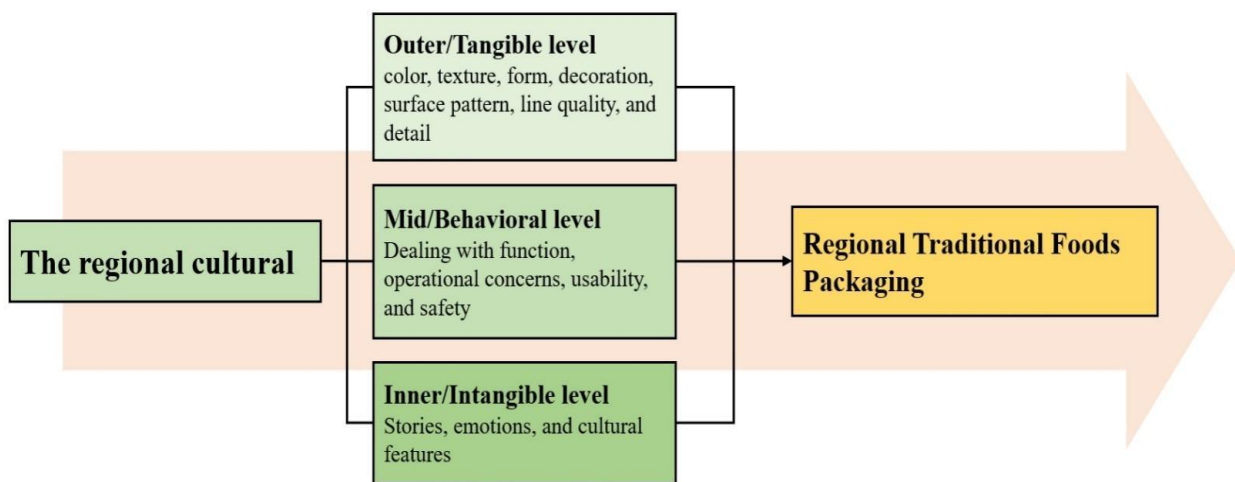


Figure 3: Proposed conceptual framework for influence of regional cultural design features on regional traditional foods packaging

3.2. How can packaging design be combined with regional cultural features to improve the packaging of traditional foods?

For local traditional food enterprises, integrating traditional culture into packaging not only enhances the uniqueness of the product, but also promotes emotional resonance with consumers and enhances the cultural connotation of the product. However, while research on the innovative application of traditional culture in various industries, including food packaging, is growing, a new question has emerged: how to quantitatively assess the multifaceted impacts and synergistic approaches of packaging design that echoes traditional culture? This section begins with a clarification of the conceptual and functional characteristics of packaging, followed by a generalization of the visual elements of packaging design. Finally, this section will focus on the relationship between regional cultural features and the elements of packaging design.

The Function and Elements of Packaging

Scholars across diverse cultural and academic spheres have proposed varying definitions of packaging. From a marketing perspective, packaging is defined as a marketing tool that is directly involved in interactions at the point of sale and that provides a competitive advantage for corporations and products (Rundh, 2016; Silayoi & Speece, 2004). When referring to a physical product, "packaging" refers to the tangible container that surrounds a product. Such a package not only secures, protects and preserves the

item, but also provides for its identification, simplifies handling and enhances marketability (Simms & Trott, 2010).

The packaging of a product serves multiple pivotal roles and performing different functions throughout its entire supply chain. Many studies have recognized that the functions of packaging are primarily related to logistics or marketing (Lindh et al., 2016). Rundh (2016) the main role of packaging is to protect and contain the product, highlighting its functional and logistical dimensions. At the same time, another role of packaging is to display and advertise the product, emphasizing its marketing and communication dimensions, and its ability to communicate makes it a "silent salesman on the shelf" (Silayoi & Speece, 2004). In the highly competitive food industry, consumer choices are made at the point of sale, and for "low-involvement products" such as food, consumers do not search and evaluate product information extensively, therefore packaging display plays an important role in pre-shelf consumer decision making (Chaya et al., 2015).

In addition, ineffective design can be disruptive to consumers and negatively impact enterprises (Kotler & Armstrong, 2017). Therefore, excellent product packaging has to fulfil the demands of the market and consumers in terms of functional design. Yiangkamolsing et al., (2010) advocate for a design that prioritizes ergonomics and consumer convenience, encompassing attributes like ease of opening, legible information, portability, and structural coherence. Vernuccio et al., (2010) emphasized that packages should be designed in a way that consider features such as user safety and information accuracy. Furthermore, combining green technologies with packaging design can ensure resource efficiency while meeting consumer demands for resources and environmental protection (Steenis et al., 2017).

Most of the many studies on the functional attributes of packaging have examined packaging as a holistic concept. However, the relationship between design elements of packaging and consumer responses is also a current research area that designers need to be focused on. For the classification of packaging design elements, scholars have different views. Silayoi and Speece (2007) based on previous literature have classified the elements of packaging design into two categories: visual and information elements. The former encompasses attributes like graphics, color, shape and size of the package. while the latter pertains to product-related and technical details present on the packaging. Al-Samarraie et al. (2019) in their study divided packaging design elements into visual and verbal elements. Visual elements include graphics, colors, and holistic packaging forms. In contrast, linguistic elements provide deeper product insights including nutritional data, labeling details, origin and branding. The purpose of this study is to critically evaluate both the visual and linguistic dimensions, focusing on visual elements such as graphics and color, as well as emphasizing the linguistic elements represented by labels and brands.

For consumers, packaging is often equated with the product, especially for low-involvement products. Spence and Velasco (2018) argue that visual elements such as graphics, color, etc., become critical due to the limited consumer access to information at the front of the shelf. Meanwhile, Xu (2020) stated that many products are chosen impulsively and without premeditation. This is confirmed by Silayoi and Speece (2004) who found that visual elements have a greater impact on choices made under time constraints, which emphasizes the need for visual elements to be prominent in a product to facilitate faster decision making at the point of sale.

Product packaging visual elements play a pivotal role in piquing their interest (Silayoi & Speece, 2007). Superior graphics not only captivate consumers but also convey a perception of quality, leading to impulse purchases (Grewal et al., 2019). Color is an important part of packaging that affects customer emotions and choosing the right color can increase product awareness (Poturak, 2014). Moreover, packaging design requires optimal shapes and sizes to attract attention of consumers. For example, elongated packages that are perceived to be larger can guide consumer perceptions of quantity (Silayoi & Speece, 2004). Packaging materials also influence consumer choice, with the choice of packaging materials emphasizing eco-sustainability in recent years (Prakash & Pathak, 2017). Steenis et al. (2017) affirmed a growing consumer inclination towards environmentally-conscious packaging, potentially redirecting long-term product and packaging preferences.

The verbal elements of packaging are vehicles for conveying product-specific information that helps consumers make informed choices (Miller & Cassady, 2015). A prominent example is food labelling, which is increasingly important in helping consumers identify food choices in the context of health-conscious trends. The design of such information is therefore of critical importance to consumers; a study on food labelling showed that 90% of participants favored a uniform layout of nutritional panels to improve comprehension (Mitchell & Papavassiliou, 1999). However, if the information is excessively rich or ambiguously presented, it can sometimes be confusing for the consumer.

The Relationship of The Culture Design and Packaging Design

There is a tight connection between cultural design and packaging design, and this connection involves how to incorporate elements of regional culture into packaging design in order to create product packaging that is regionally distinctive and appealing. Packaging is an important tool that can transmit cultural identity, brand values and emotions. The combination of regional cultural design and packaging design not only helps products differentiate themselves in the marketplace, but also establishes brand identity and promotes an emotional connection between consumers and the product.

Combining the cultural hierarchy theory of Leong & Clark (2003) and the emotion design three layers of Norman (2004), Lin (2007) proposes and divides cultural product design into three different and interrelated levels. The first are the visceral or tangible level consisting of color, quality, form, surface pattern, line, detail treatment and composition. They directly demonstrate the characteristics of the regional culture. Secondly, the middle or behavioral layer includes functions such as functionality, operation, usability and safety. Finally, the intangible or reflective level contains the special meaning, narrative, emotion, and cultural attributes of the culture. In addition, these three layers correspond to the initial perception of the package by the user before purchase, the operational experience during the use process, and the emotional feedback after use.

In the tangible of visceral level, the visual elements of packaging dominate, and when consumers select goods in front of the shelves, the shape of the packaging, the texture of the material, the choice of color, and the creativity of the graphic, etc., bring different emotional feelings to the user, which instinctively triggers an emotional response (Bou-Mitri et al., 2021). In the middle of the behavioral level, it is concerned with the user's use of packaging behavior. The highest requirement of behavioral experience is people-oriented. Understanding user behavior and skillfully integrating cultural rituals and cultural emotions into packaging gives consumers a positive emotional experience. However, if the behavioral experience is puzzling, it will bring negative emotional impact on users (Nemat et al., 2019).

The organic combination of cultural features and design features can create positive emotional experiences. The recessive reflective layer of packaging design is built on the basis of the dominant instinct layer and the intermediate behavior layer. The lasting memory of culture for users comes from the reflective layer and even affects our future use of the product. In the packaging design, "the instinct layer, the behavior layer and the reflection layer interweave, influence and penetrate each other." Only by exploring the cultural experience path of packaging users can the packaging design meet the regional cultural characteristics and the real needs of consumers (Bezaz & Kacha, 2021).

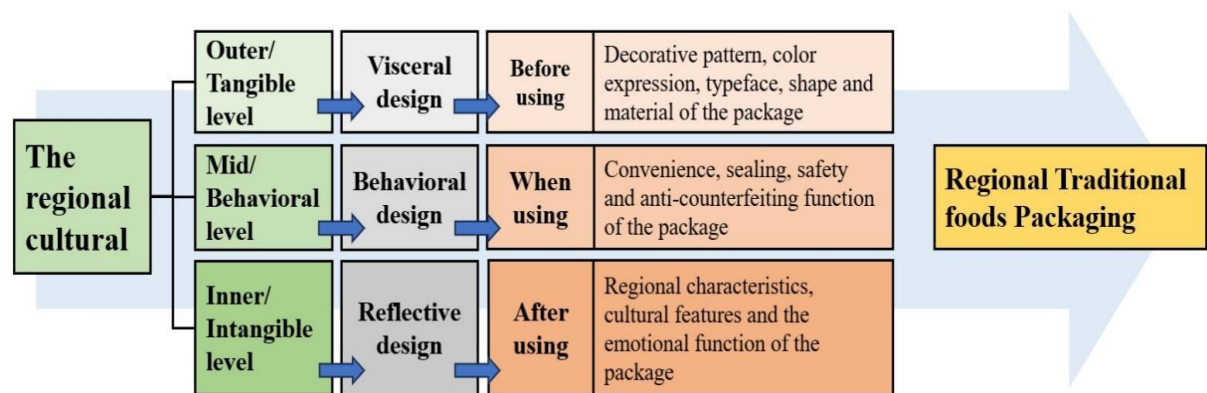
Furthermore, many scholars have explored and attempted to develop the relationship between packaging design and regional culture design. Yang et al. (2023) asserts that in the research of food packaging design with regional cultural characteristics, they combine regional culture with packaging design elements and functions according to the three-layer theory of emotional design. At the outer visceral level, the designer should pay attention to the decorative pattern, color expression, shape and material of the package; at the middle behavioral level, the designer pay more attention to the convenience, sealing, safety and anti-counterfeiting function of the package; at the inner reflection level, the designer should pay more attention to the regional characteristics, cultural features and the emotional function of the package. Moreover, Xia et al. (2023) analyzed the intrinsic demands of consumers for the packaging of products with regional cultural characteristics; including the visual design level and the interaction design level, and their approach attempted to build a bridge between the customer, the product, and the packaging to stimulate the

emotional experience of consumers.

Integrating local cultural characteristics into packaging design significantly improves the uniqueness and market share of products by influencing consumers' cognition and behavior. Local culture plays a vital role in economic development, representing the identity and cultural extension of a region. With the growth of cultural and spiritual demands, both producers and consumers recognize the importance of cultural design in improving the competitiveness of packaging (C. Zhu & Zhang, 2021). Therefore, packaging should have a special style that highlights the cultural characteristics of the region and enriches the cultural value of the product and its competitive advantage in the market.

The Process of Conceptual Framework Formation

Integrating regional cultural elements into traditional food packaging can effectively highlight the regional uniqueness of the food and promote an emotional connection with consumers. This study aims to explore



the optimal method of incorporating regional traditional food packaging design. Through a review and analysis of relevant literature, three levels of regional culture are combined with the visual and functional aspects of packaging design, the visceral level that focuses on aesthetics such as decoration and materials; the behavioral level that emphasizes practical aspects such as convenience and safety; and the reflective level that highlights regional and cultural characteristics. Eventually, the study proposes that traditional foods packaging can be designed by amalgamating the distinct dimensional features of regional culture with the functional and visual aspects of packaging, thereby enhancing the regional cultural of product packaging value and distinctiveness from various perspectives. Figure 4 is the proposed conceptual framework.

Figure 4: Proposed conceptual framework for influence of application regional cultural design features into packaging design on regional traditional foods packaging

3.3. What is the impact of traditional foods packaging design with regional cultural features on consumer satisfaction?

There is a growing scholarly interest in understanding how cultural features and food packaging design influence consumer satisfaction. This section discusses the impact of incorporating regional cultural features in traditional food packaging on consumer satisfaction. The research firstly analyzes the impact of packaging design on consumer demand and satisfaction, and then explores how integrating regional cultural features in traditional food packaging can effectively enhance consumer satisfaction.

The Impact of Packaging Design with Consumer Satisfaction

Product packaging is crucial in modern commodity markets, not only for protection but also for market communication and branding (Silayoi & Speece, 2007). Its impact on consumer satisfaction is well documented and has a significant effect on purchase decisions and brand loyalty (Gómez et al., 2015). Therefore, this study aims to clarify how product packaging affects consumer satisfaction and the

mechanisms behind this effect.

The impact of packaging on satisfaction is multifaceted and involves both appearance and design. Research has shown that attractive and functional package design can stimulate consumer interest and improve product evaluations (Rundh, 2016). Elements such as color, shape (Kunz et al., 2020), logo, and typography (de Sousa et al., 2020) of product packaging contribute to the initial impression of the consumer. Gómez et al. (2015) found that packaging attributes such as color affect the perception and consumption experience of food and beverages. Therefore, this study agrees that enterprises should increase their investment in visually appealing packaging design to improve consumer satisfaction.

In addition, the information delivery and functionality of product packaging has a significant impact on consumer satisfaction. It protects the product while providing important product information such as ingredients, usage, and shelf life, which is critical to consumer decision making (Silayoi & Speece, 2007). Clear and accurate packaging information increases consumer loyalty and satisfaction, while unclear or misleading information can damage product reputation (Grunert et al., 2010). In addition, it is crucial for packaging to be usable and convenient; packaging that would be difficult to use can lead to consumer dissatisfaction (Schifferstein et al., 2013). Therefore, the functionality and convenience of packaging is also an important factor in consumer satisfaction.

Furthermore, packaging can also reflect the value and image of the enterprise and affect consumer satisfaction. When packaging is aligned with the core values of a brand, it promotes emotional attachment among consumers (Orth et al., 2019). For example, packaging of luxury brands tends to reflect the luxury and quality of the brand, thus increasing customer satisfaction. Thus, packaging can be considered as an extension of the story and image of the brand (Rundh, 2009). Meanwhile, personal preferences and cultural backgrounds of consumers can also influence their perceptions of product packaging. Some studies have verified that consumers from different backgrounds may have different preferences for the appearance, color, and design of packaging, as well as different interpretations of the symbols and images in packaging (Silayoi & Speece, 2007). Therefore, enterprises should consider their value, image and target market characteristics when designing packaging to satisfy different consumer groups.

In general, product packaging has a significant impact on consumer satisfaction through its design, information delivery, functionality, brand consistency, and consistency with consumer preferences and cultural context. By optimizing these aspects, enterprises can enhance product appeal and brand competitiveness, thereby increasing market share. This complex interaction deserves further research to understand its long-term impact on the interplay between consumer satisfaction and different elements of packaging.

3.3.2. What is the impact of traditional foods packaging design with regional cultural features on consumer satisfaction?

In the context of globalization, product packaging is not only a tool for delivering product information, but also a carrier for reflecting the regional cultural background and values of consumers (Silayoi & Speece, 2007). Incorporating regional cultural features in traditional foods packaging design is the core of this study. This combination not only appeals to the aesthetic sensibilities of the people, but also links the product to its cultural roots, thus evoking a sense of authenticity, nostalgia and trust in the consumer. Therefore, this section will explore in depth how traditional foods packaging design which reflects regional cultural features can influence consumer satisfaction.

Regional cultural features are like bridges to history; each region has its own unique cultural differences, and these nuances are often reflected in its food. Whether the spice of Indian curry or the delicacy of Japanese sushi, food is a reflection of history, geography and heritage. They play a dual role when these cultural traits appear on product packaging. First, they are visual storytellers that inform consumers about the traditional characteristics of the product. Second, they are also markers of authenticity that can indicate to the consumer that the product inside the package is a true representation of the local food.

Xia and Zhang (2023) found through their study that integrating regional cultural elements in product packaging can evoke emotional resonance in consumers. The use of regional symbols, images, and colors can increase the interest and emotional connection of consumers to the product. For example, the use of traditional Chinese motifs and celadon colors in tea packaging design positively affects the emotional and purchase intention of consumers (Kuo et al., 2023). This suggests that by strategically applying regional cultural elements a product can be made to stand out in a competitive marketplace. In addition, cultural elements in packaging can improve product recognition. Consumers usually recognize products based on their packaging, and when packaging design includes elements related to their own regional culture, it is easier to strengthen the emotional bond between the product and the consumer (Wu, 2021). Furthermore, some scholars believe that packaging with elements of regional culture is more likely to be recognized and accepted by the market because consumers perceive these products as being more in line with their cultural background (Dash, 2021).

Cultural elements in product packaging can convey corporate values and regional culture and enhance brand image. Packaging that reflects corporate social responsibility, environmental awareness, and cultural narratives can foster brand loyalty and achieve sustainability goals (Steenis et al. 2017). However, yet, there may be some challenges in consumers' perception of product packaging culture. First, the use of cultural elements requires caution to avoid misunderstandings or culture clashes, especially in a global marketplace where cultural perceptions vary. Companies should consider the cultural characteristics of their target markets in packaging design. In addition, individual differences among consumers, influenced by cultural background, education level and personal experiences, may also affect their perception of cultural elements (Silayoi & Speece, 2007). Therefore, companies should conduct market research to understand the cultural perceptions of the target audience and effectively meet their demands.

In general, This research concurs with Kuo et al. (2023) and Wu (2021) that integrating regional cultural features into traditional food packaging enhances consumer experience, builds trust, and fosters emotional connections. Effectively using regional cultural elements can stimulate emotional resonance, improve product recognition, and convey brand values and missions. However, enterprises must handle cultural elements carefully to avoid cultural clashes and consider individual differences among consumers for better satisfaction.

The Process of Conceptual Framework Formation

In this section, this study aims to analyze the impact of regional cultural features integrated into packaging design on traditional foods packaging and consumer satisfaction. It is found that consumer satisfaction can effectively reflect whether the design of each element of product packaging is reasonable or not, and successful product packaging can provide people with a good sensory experience. Incorporating regional cultural characteristics into traditional foods packaging design can enhance the consumer experience and increase the sense of trust. Meanwhile, it is also possible to promote regional traditional foods through packaging design. Based on the above results, this study concludes that traditional foods packaging design characterized by regional cultural features can not only effectively enhance consumer satisfaction and emotional experience, but also improve the image of traditional foods packaging. Figure 5 is the proposed conceptual framework.

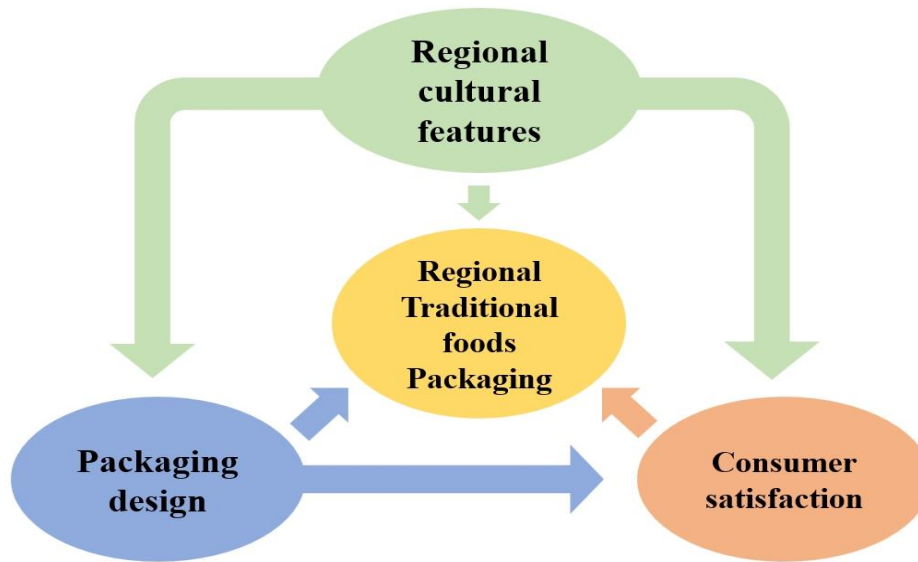


Figure 5: Proposed conceptual framework for the impact of traditional foods packaging design with regional cultural features on consumer satisfaction.

Discussions

Packaging primarily protects products and provides information, but it is also playing an increasing role in consumer purchasing decisions. Excellent packaging design can communicate the quality of a product, build trust and even evoke an emotional response from consumers. However, over-packaging or non-ergonomic designs can be offensive to consumers, so it is crucial to achieve the appropriate balance in food packaging.

Regional cultures provide unique colors, patterns and stories for packaging design. Incorporating these elements into packaging can be associated with making a product differentiate itself and enhance its cultural attributes and impact. However, cultural elements must be used carefully to avoid misinterpretation or conflict, and designers should consider the cultural features of the target market and consumer context when designing.

This study has analyzed the impact of regional cultural design features on regional traditional foods packaging, examined and identified the design approach of application regional cultural features into packaging design, and has understood the influence of traditional foods packaging design with regional cultural features on consumer satisfaction. Based on the identified research requirements, this research systematically analyzes and discusses each of the above themes in six steps. The rationale for this approach is to critically assess the strengths and limitations of the various synthesized perspectives in order to provide and suggest the most appropriate direction for the overall study. Drawing on the POD tree diagram shown in Figure 6, this section discusses how the initial results can be further synthesized in order to develop a robust theoretical framework for subsequent scholarly inquiry.

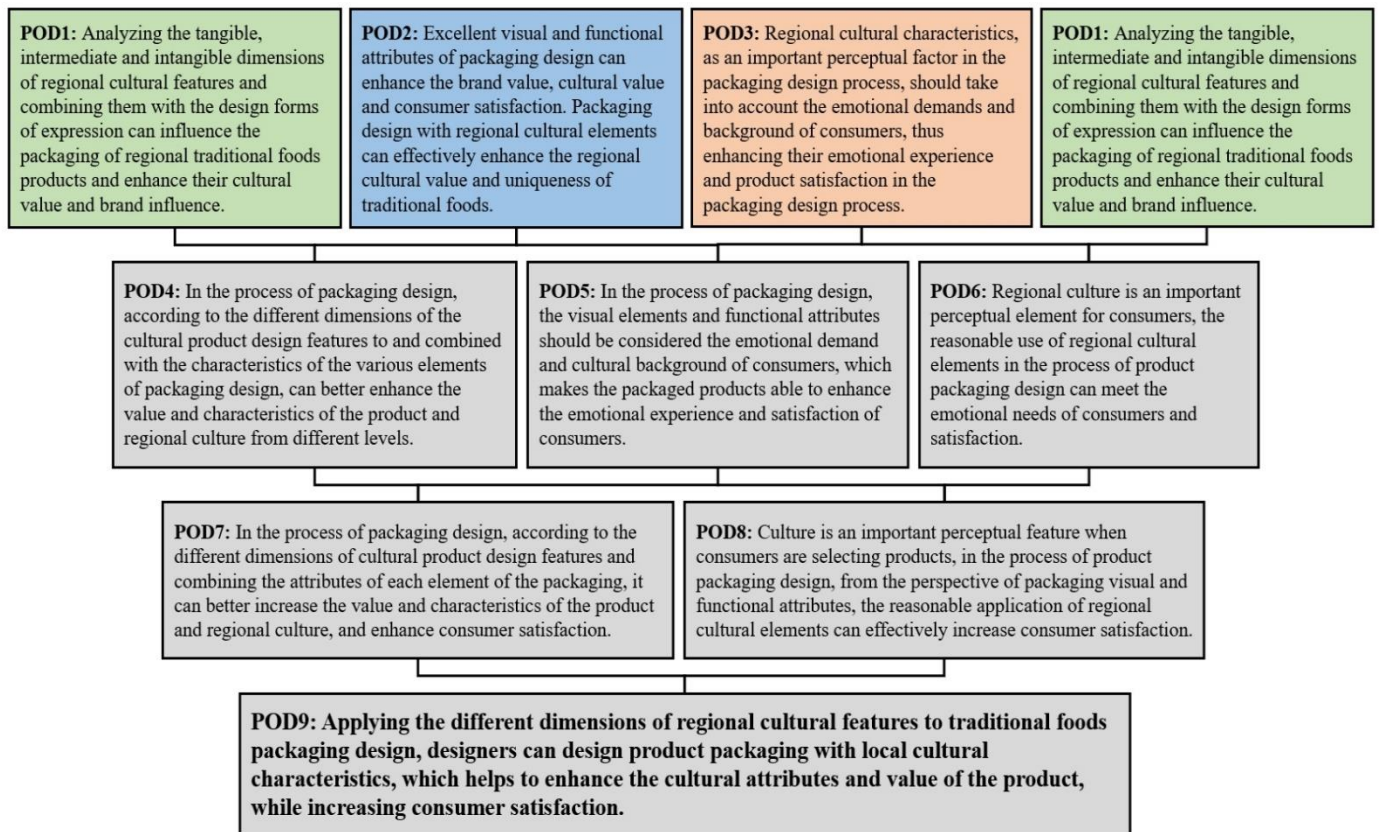


Figure 6. Point of Departure (POD) Tree Diagram for the impact of traditional foods packaging design with regional cultural features on consumer satisfaction adapted with permission (Ibrahim & Mustafa Kamal, 2018)

Through the research and discussion in Section 3.1 of this study, this study concluded that analyzing the tangible, intermediate and intangible dimensions of regional cultural features and combining them with the design forms of expression can influence the packaging of regional traditional foods products and enhance their cultural value and brand influence. (see POD1). In Section 3.2, this study concluded that excellent visual and functional attributes of packaging design can enhance the brand value, cultural value and consumer satisfaction. Packaging design with regional cultural elements can effectively enhance the regional cultural value and uniqueness of traditional foods. (see POD2). The synthesis of POD1 and POD2 found the in the process of packaging design, according to the different dimensions of the cultural product design features to and combined with the characteristics of the various elements of packaging design, can better enhance the value and characteristics of the product and regional culture from different levels. (see POD4).

In Section 3.3, this study found that regional cultural characteristics, as an important perceptual factor in the packaging design process, should take into account the emotional demands and background of consumers, thus enhancing their emotional experience and product satisfaction in the packaging design process. (see POD3). After synthesizing POD2 and POD3, this study found the in the process of packaging design, the visual elements and functional attributes should be considered the emotional demand and cultural background of consumers, which makes the packaged products able to enhance the emotional experience and satisfaction of consumers. (see POD5). After synthesizing POD3 and POD1, this study found that regional culture is an important perceptual element for consumers, the reasonable use of regional cultural elements in the process of product packaging design can meet the emotional needs of consumers and satisfaction. (see POD6).

Going through the POD Tree Diagram, after synthesizing POD4 and POD5, in the process of packaging design, according to the different dimensions of cultural product design features and combining the attributes of each element of the packaging, it can better increase the value and characteristics of the product and regional culture, and enhance consumer satisfaction. (see POD7). After synthesizing POD5 and POD6, this study found that culture is an important perceptual feature when consumers are selecting products, in the process of product packaging design, from the perspective of packaging visual and functional attributes, the reasonable application of regional cultural elements can effectively increase consumer satisfaction. (see POD8).

As the conclusion of this synthesis exercise between POD7 and POD8, this study found that by applying the different dimensions of regional cultural features to traditional foods packaging design, designers can design product packaging which helps to enhance the cultural attributes and value of the product, while increasing consumer satisfaction. (see POD9). Based on POD9, this study posits that a potential solution can be achieved by creating an integrated process for improve the image of traditional foods packaging by integrating regional cultural features into packaging design to increase consumer satisfaction. Figure 7 shows the subsequent proposed conceptual framework.

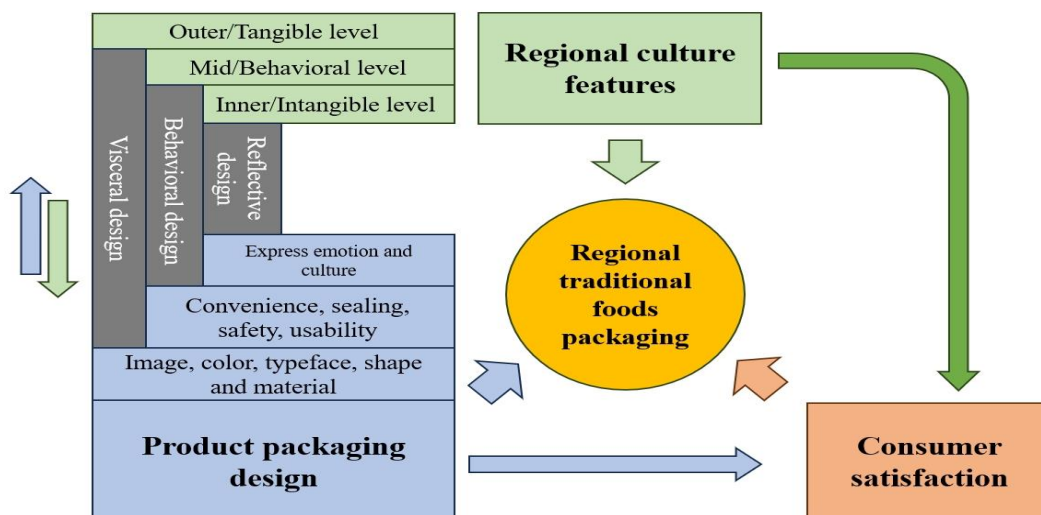


Figure 7. Proposed conceptual framework for Application of Regional Culture Features into the Product Packaging design to Improve the Traditional foods Packaging and Enhance Consumers Satisfaction.

Conclusions

The aim of this study is to improve the image of traditional foods packaging and enhance consumer satisfaction by applying regional cultural features to packaging design. The study included regional cultural features, application to packaging design, and improvement consumer satisfaction. Regarding the content of the regional cultural features, the study found that analyzing the different dimensions of regional cultural features and combining them with the design forms of expression can influence the packaging of regional traditional foods products and enhance their cultural value and brand influence. With regard to discussing the application to packaging design, the study found that excellent visual and functional attributes of packaging design can enhance the cultural value and consumer satisfaction. Packaging design with regional cultural elements can effectively enhance the regional cultural value and uniqueness of traditional foods. Moreover, in discussing the improvement consumer satisfaction, the study found that Regional cultural characteristics in packaging design should consider the emotional demands and contextual of consumers,

thus enhancing their emotional experience and product satisfaction. Further synthesis of the above results concludes the conceptual framework for improving the regional traditional foods packaging design to enhance consumer satisfaction. The proposed conceptual framework recommends that by applying the different dimensions of regional cultural features to traditional foods packaging design, designers can design product packaging which helps to enhance the cultural attributes and value of the product, while increasing consumer satisfaction. The research results are significant because they help designers effectively improve regional traditional foods packaging design to enhance consumer satisfaction. This study recommends further research into how packaging design and regional culture promote the image of traditional foods. This study contributes to improving the quality of regional traditional foods packaging and stimulating consumer satisfaction through the using of appropriate design forms.

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