

The Ly-Tran Dynasty: Applications of Water Waves Symbols on Contemporary Packaging Designs

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Abstract—The theme of decorative patterns of lotus, chrysanthemum, dragon, cloud, and water waves is a commonly used image in Ly-Tran's decorative designs that are still used today. Others are an endless source of inspiration for application design and themes that have become fashion trends with ethnic elements. Contributing to promoting and preserving the value of Vietnamese fine art in the modern period, this article surveys and analyses the formation and transformation of water waves through the ages and their applications in contemporary packaging design. The research shows that the water wave pattern is a long-standing symbol and decorative pattern in ancient Vietnamese visual arts; it not only has artistic value but also contains religious and spiritual value and the profound Eastern philosophical concept, reflecting the constant rotation of life on each winding rhythm. This pattern under the Ly-Tran dynasties has both practical significance and represents the peak shaping value of the dynasty. Integrating the rhythm of contemporary life into application design, using water wave patterns in packaging design, aims to promote and spread more widely to the public in modern life.

This article aims to study the social context and creative forms of recreating and using water wave motifs in general application design and packaging in the field of art and design today. At the same time, analysis of new design methods continues to develop, convey, and even expand the symbolic meaning of the motifs through the aesthetic orientation of contemporary people and by inheriting and promoting traditional good culture.

Keywords: Ly-Tran, Water waves, contemporary, packaging design.

BACKGROUND

I. INTRODUCTION

I.I. BACKGROUND ON THE LY-TRAN DYNASTY

The process of forming the water waveform, culminating in the Ly-Tran dynasties, had to go through thousands of years of change and development. Another type of pattern is the sinuous wavy pattern. This simple wavy line runs zigzag and curves back and forth regularly into a decorative tape. The history of the formation of Thuy Ba cannot help but mention a precious pattern that people call musical staff patterns. It comprises many parallel lines evenly spaced like the musical staff of songs; sometimes, it is a straight band running around the circumference of the ceramic; other times, it is wavy, curving regularly in a sin pattern. The image of Thuy Ba literature, the peak of which is the most brilliant Ly - Tran dynasties, marks the golden age of Thuy Ba visual art. During this period, the three water motifs were pushed to the level of the most complete symbolism. In later periods, the three water motifs were transformed into more motifs. They are often combined with brocade rattan and van Khanh to create unique frills.

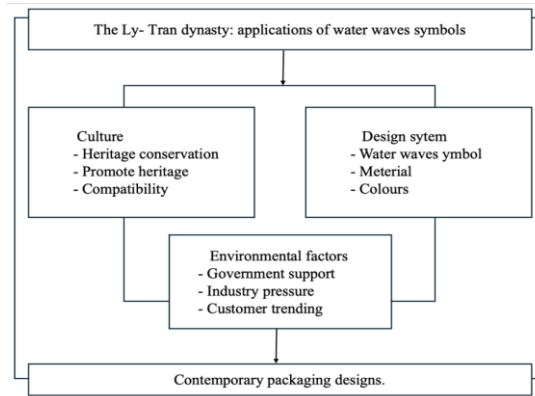
Throughout history, water ba has been born and changed in association with people's concepts through each period. However, its fundamental principles and values have stayed the same no matter how it changes.

I.II. SIGNIFICANCE OF THE STUDY

Despite the promising potential of applying images of ancient patterns to promote national cultural values through packaging design, it still needs to be improved (Nguyen Du Chi, 2003). Understanding the importance of the Design elements that influence life and culture, identifying cultural characteristics and distinguishing differences in design characteristics in this area is very important for tourism service providers, researchers, and researchers to develop effective strategies to promote national values that are successfully implemented (Chu et al., 2012). This study contributes to the existing literature by providing empirical evidence on the factors influencing the application of the Water Wave pattern to contemporary packaging design, providing valuable insights for decision-makers and scholars (Tran et al. (1975).

I.III. RESEARCH OBJECTIVES

The main goal of this study is to investigate the factors that influence the use of Ly-Tran Dynasty water wave patterns in contemporary packaging design (Nguyen et al., 2000). Specifically, the research aims to Identify visual elements related to the application of water wave patterns in the packaging design industry (Sandra A Krasovec, 2015), Examining the relationship between these factors and intention to use water wave symbols among design service providers (Pentawards, 2016); Provides recommendations to design service providers, agencies, and researchers to facilitate the successful application of the water wave pattern to contemporary packaging design.



*Source: Suggested by author

Figure 1: Research Model Design Affecting the Intention to Adopt Water Waves Symbols in Contemporary Packaging

II. LITERATURE REVIEW

II.I. OVERVIEW OF LY- TRAN DYNASTY

In the Sino-Vietnamese dictionary, Water Wave means an endless energy source that never runs out because Water Wave reflects the continuous circulation of life and immortality. 98% of relics have images of mountains and water waves appearing in the Buddhist cultural space of the Ly Tran Dynasty (Tran et al., 1998).

When studying the artefacts on decorative pedestals in Ly Dynasty pedestal sculptures such as the Amitabha statue at Phat Tich Pagoda (Bac Ninh) show the yin and yang harmony between the images of lotus, chrysanthemum, dragon and dragon mountain. It is water; Wherever it grows, all living things grow there. The water wave decorations on royal costumes are all the same, all on the hem. In each work, all cultural quintessence and national perspectives converge, so literature is placed under the border or wrist; in addition to the desire for a prosperous and prosperous society, it is also the concept of responsibility and putting people first (Doan et al., 2008)

The artistic value of water waves is associated with the theory of Yin and Yang in Eastern philosophy. Vietnam and Eastern countries also have similar perceptions of the universe and concepts of life. This has gone deep into the subconscious of Eastern people, so the image of three-layered water appears.

Characteristic	Category	Frequency	Percentage
Gender	Male	210	60%
	Female	140	40%
Age	20 -29	75	21,4%
	30 - 39	135	38,6%
	40-49	90	25,7%
	50	50	14,3%
Education	High school	35	10%
	Bachelor	225	65%
	Master	73	20%
	Doctor	17	5%

Table 1. Demographic Characteristics of Survey Respondents

II.II. FACTORS AFFECTING THE APPLICATION OF WATER WAVES IN PACKAGING DESIGN

Previous studies have identified several factors that influence the adoption of Water Wave in various industries, based on the theory of plastic arts acceptance and the innovation-driven design model (Sandra et al., 2023). Technological factors, such as perceived usefulness, ease of use, and compatibility, significantly impact the intention to apply cultural values to market

products (Nguyen et al., 1997). Organisational elements of structure, including material support, standard dimensions and moving pressure, also play an essential role in the application of packaging design (Cung et al., 2016). Additionally, environmental factors, such as government support, industry pressures, and customer demands, have been identified as important factors determining the adoption of cultural values in contemporary product design (Gawin et al., 2016).

II.III. GAPS IN EXISTING LITERATURE

Although the number of studies on the application of Ly-Tran motifs is increasing, limited research focuses explicitly on contemporary packaging design (Tran et al., 1998). The unique characteristics of cultural advertising on designer products, such as its emphasis on consumer curiosity, seasonality, and fragmentation, warrant an in-depth investigation of its factors—applying the Water wave symbol to contemporary packaging design (Nguyen et al., 1997). Furthermore, previous studies have mainly relied on quantitative methods, ignoring the rich insights that qualitative methods can provide (Doan et al., 2008). This study addresses these gaps by using a mixed methods approach to examine the factors influencing the adoption of water waves in contemporary packaging design.

End with a brief statement of what is being reported in the article [1].

III. METHODOLOGY

III.I. RESEARCH DESIGN

This study adopts a mixed methods research design, combining quantitative and qualitative methods to comprehensively understand the factors influencing the adoption of Water Wave in envelope design—contemporary packaging (Gawin et al., 2016). The quantitative phase included a survey of product service providers to examine the relationship between technological, organisational, and environmental factors and the intention to adopt the Water Wave symbol of the Ly-Tran dynasty (Nguyen et al., 1997). et al., 2012). The qualitative phase includes customer interviews and case studies to explore experiences, perceptions, and challenges in applying cultural symbols to products (Cung et al., 2016).

III.II. DATA COLLECTION METHODS

III.II.I. SURVEY

A web-based survey will be conducted among a sample of conventional and designed packaging product suppliers using Ly-Tran's Water wave pattern in the design industry, including schools, travel agencies and points of sale (Chu et al., 2012).). The survey questionnaire will be developed based on a validated scale from previous studies on applying cultural elements and Water wave motifs (Cung et al., 2016). A pilot study will be conducted to evaluate the reliability and validity of the questionnaire (Gawin et al., 2016).

III.II.II. INTERVIEW

Indirect interviews will be conducted with key informants from the packaging design services industry, such as managers, design experts and policymakers (Nguyen Du Chi, 2003). Interviews will explore participants' experiences, perceptions, and challenges in applying Ly-Train's cultural elements in their organisations (Sandra A Krasovec, 2015). Purposive sampling will select informants with diverse backgrounds and expertise (Doan et al., 2008).

III.II.III. CASE STUDY

Case studies will be conducted to provide insights into the practice of successfully applying cultural motifs in the packaging design industry (Gawin et al., 2016). Cases will be selected based on criteria such as level of design implementation, innovation, and performance (Nguyen Du Chi, 2003). Data will be collected through multiple sources, including documents, observations, and interviews, to ensure data triangulation (Cung et al., 2016).

III.III. DATA ANALYSIS TECHNIQUES

III.III.I. QUANTITATIVE ANALYSIS

This study used a cross-sectional design to collect data from multiple participants over a single period to address our research questions (Spector, 2019). Using qualitative research methods (Creswell & Clark, 2004), we aimed to understand the contextual factors surrounding the cultural application of the Water wave motif in design. Packaging of the participants in the experience. Qualitative research is recognised for its less structured nature than quantitative studies, which often involve

intertwined or parallel processes (Miles et al., 2019). In this particular study, our focus was explicitly on contemporary packaging in our research design, allowing us to examine this phenomenon in a way that would naturally occur in a real-world setting (Farrelly, 2013; Spector, 2019)









III.III.II. QUALITATIVE ANALYSIS

Interview and case study data will be analysed using structural packaging analysis to themes and categories related to Water wave motif elements (Braun & Clarke, 2006). The analysis will include iterative processes of critical concept identification, coding, theme development, and interpretation (Nowell et al., 2017).

IV. FINDING

The results of our study are more widely relevant when we organise them into distinct groups. We aim to design a system to evaluate the cultural significance of the Ly-Tran dynasty on contemporary packaging design. We wanted to extend the application of our findings beyond the boundaries of our research by using this approach. To demonstrate the structural underpinnings of the categories and propose to arrange them in a hierarchical order to facilitate a clear and logical understanding of their interconnections.

ANALYSIS OF WATER WAVE DIRECTION OF THE LY-TRAN DYNASTY IN VISUAL ART

Shape of water wave	Characteristic	In architecture	In sculpture	In Costume
Sin shape	The sin-shaped water wave, often simply called Water Wave, is a type of water wave that curves horizontally and rhythmically. There are designs that have many layers of waves with the same step but different heights, looking very relaxing and elegant.			
Mountain shape	This is a type of water wave with a mountain-like shape. The waves are still nested in three layers, rising high but longer and the layers from the inside out have the number of floors 1,2,3. The base of the wave opens and connects to the side wave, forming rhythmically winding strings in a broken sine shape segment.			
Mushroom shape	This type of wave tightens the legs below, so it is called mushroom-shaped water. Each wave usually has three nested layers, large and small, the wave motif usually has two to three layers created by the breaks of the Parabolic curve, the end of the wave bends inward to create the next leg of the wave.			

*Source: Suggested by author

IV.I. FACTORS AFFECTING THE USE OF WATER WAVE APPLICATIONS IN CONTEMPORARY PACKAGING DESIGNS

IV.I.I. ELEMENT OF USES

IV.I.I.I. PERCEIVED USEFULNESS

The survey results indicate that cognitive usefulness significantly impacts the intention to apply historical values to modern designs. The interviewees emphasised the benefits of applying textures with national cultural values, contributing to creating interest in improving customer experience, operational efficiency, and data-driven decision-making. Case studies have demonstrated that organisations with higher levels of historical information adoption have experienced improved performance results in promoting national values.

IV.I.I.II. PERCEIVED EASE OF CULTURAL

Cultural awareness has a significant positive impact on purchase intent. Interviewees emphasised the importance of cultural values impacting product access perceptions and purchase awareness. They desire to use a product with value in terms of meaning, appearance and internal quality. Case studies show that organisations with a good design culture application solution face fewer barriers to adoption.

IV.I.I.III. COMPATIBILITY

The compatibility of the form of the packaging design and the content on the packaging has a positive impact on the purchase intention of the product. Interviewees noted that design solutions must align with the buyer's values and needs and provide additional knowledge on the product packaging. Case studies show that organisations with specific solutions to incorporate cultural stories into compatible products have undergone a deliberate research process in promoting the culture of the Ly-Tran dynasty.

IV.I.II. PROTECTION FUNCTION

IV.I.III. TOP MANAGEMENT CULTURAL SUPPORT

The support of high-level cultural management organisations significantly impacts Ly-Tran's intention to apply its cultural values to product packaging design. Interviewees emphasised the critical role of leadership in allocating resources, fostering a culture of innovation, and fostering applied creativity. Case studies have demonstrated that organisations with top solid management support have been more successful in applying historical cultural values to contemporary design.

IV.I.II.II. ORGANIZATIONAL READINESS

The readiness of the business organisation has a significant positive impact on the intention to apply cultural imagery to contemporary design, directly affecting the design team's idea. Interviewees emphasised the importance of having the necessary resources, skills, and infrastructure to support the application of cultural and historical values to app design. Case studies show that organisations with higher readiness levels face fewer challenges in implementing product ideas.

IV.I.II.III. COMPETITIVE PRESSURE

Competitive pressure has a significant positive impact on the intention to apply art forms to the form of product design. Interviewees noted that competitors' growing adoption of the typical artistic values of the Ly-Tran dynasty has motivated their organisations to explore new application solutions for product packaging. Case studies show that organisations facing higher competitive pressures are more likely to invest in cultural values as an inevitable trend to maintain their market position.

IV.I.III. ENVIRONMENTAL FACTORS

IV.I.III.I. SUPPORT FROM THE GOVERNMENT

The government's support positively impacted the intention to adopt the water wave pattern of the Li-Tran dynasty. The interviewees emphasised the importance of government initiatives, regulations, and incentives in promoting the application of historically shaping values to industrial design. Case studies show that organisations operating in countries with supportive government policies face fewer barriers to adopting historical graphics and product promotion.

IV.I.III.II. INDUSTRY PRESSURE

Industry pressure has significantly impacted the intention to apply Ly-Tran dynasty motifs to contemporary packaging design. Interviewees noted that industry associations, standards, and best practices influenced their decision to apply the texture to their products. Case studies show that organisations in sectors with higher application levels of Physics-Tran culture-related motifs face more significant pressure to implement appropriate design solutions.

IV.I.III.III. CUSTOMER DEMAND

Customer demand has a significant positive impact on the intention to apply historical value to the design. The interviewees highlighted customers' growing expectations for a personalised, connected, and seamless experience between the design form on the packaging and the product. Case studies have proven that organisations with a strong focus on customer centricity are more likely to invest in research on cultural and historical values to meet customer needs.

V. DISCUSSION

V.I. INTERPRETATION OF THE RESULTS

The findings of this study provide empirical evidence of the factors influencing the use of Ly-Tran dynastic water wave patterns in contemporary packaging design. The results support the relevance of the application of ethnic motifs to packaging industrial design. Symbolic, culturally related factors, such as perceived usefulness, ease of use, and compatibility, are significant predictors of the intention to apply water wave patterns to contemporary packaging design. Organisational factors, including top management support, organisational readiness, and competitive pressure, also significantly applied the Ly-Tran dynasty's water wave pattern to contemporary packaging design. Furthermore, environmental factors, such as government support, industry pressures, and customer demand, emerged as important determinants of this adoption, corroborating the results of previous studies on the impact of historical values on customer purchasing awareness.

V.II. IMPLICATIONS FOR THE DESIGN INDUSTRY

The findings of this study provide some practical implications for the packaging design industry. First, design service providers should focus on enhancing the perceived usefulness and ease of conveying cultural values to promote the adoption of packaging forms. This can be achieved by developing a user-friendly template design that allows you to try it out and gather feedback on the textures. Provide adequate training and support and convey the benefits of historical and national cultural awareness values to employees and customers. Second, organisations should ensure synchronisation between product promotion solutions and synchronous implementation with implementation systems to minimise barriers to applying cultural values to product realisation on contemporary packaging design. Third, senior management should actively support cultural research initiatives in design by allocating resources and promoting a culture of innovation and leadership as an inevitable trend. Fourth, suppliers of products, services, and trades should assess their organisations' readiness and invest in the resources, skills, and infrastructure needed to support the study of cultural historical value applied to the contemporary packaging design industry. Fifth, organisations should monitor the competitive landscape and industry trends to stay ahead of the curve and take advantage of opportunities. Sixth, tourism service providers should cooperate with government agencies, industry associations, and technology providers to leverage support, guidance, and best practices for studying the Ly-Tran dynasty's historical and cultural values into general contemporary packaging design and water wave patterns. Ultimately, organisations should prioritise customer needs and preferences when designing and implementing design solutions to deliver exceptional experiences and drive customer loyalty when purchasing products.

V.III. LIMITATIONS OF THE STUDY

Despite the contributions, this study has some limitations that must be acknowledged. First, the study's sample size and geographic scope may limit the findings' generalisation to other contexts or regions (Saunders et al., 2016). Future research may replicate research in different countries or applications in various design fields to confirm the results. Secondly, the study's cross-sectional design simultaneously captures the factors that influenced the application of the Ly-Chen dynasty's water wave pattern application to contemporary packaging design. Longitudinal studies can provide insight into the dynamic nature of the application of the Ly-Chen dynasty's water wave pattern application to contemporary packaging design and the development influence of various factors. Third, research is based on self-reported data, which may be biased towards social desires or inaccurate recall (Podsakoff et al., 2003). Future research may use objective measures or triangulation of data from multiple sources to enhance the validity of the findings. Fourth, the study focuses on the factors influencing the intention to apply the Ly-Tran dynasty's water wave pattern application to contemporary packaging design rather than actual application behaviour. Further research can examine the relationship between the intention to adopt and the practical use of Ly-Tran dynastic motif applications in contemporary packaging design in the design industry. Finally, the study does not explore the potential censorship or mediating effects of organisational or individual characteristics on applying the Ly-Tran dynasty water wave pattern to contemporary design. Future studies may investigate the role of factors such as company size, the culture of innovation, or the readiness of individual technology in shaping the adoption process.

VI. CONCLUSION

VI.I. SUMMARY OF THE KEY FINDINGS

This study investigated the factors influencing the use of the Ly-Tran dynasty's water wave pattern applications in contemporary packaging design. The findings suggest cultural and technological factors (useful perceptions, ease of use, and compatibility), organisational factors (top management support, organisational readiness, and competitive pressures), and environmental factors (government support, industry pressure and customer demand) significantly influenced the intention to apply the water wave pattern of the Ly-Tran dynasty to the design between service providers and designers. The study emphasises the importance of considering multiple aspects when examining the Ly-Tran dynasty water wave pattern application to contemporary packaging design. It provides empirical evidence to support the possibility of applying the cultural values framework in modern design.

VI.II. RECOMMENDATIONS FOR FUTURE RESEARCH

Based on the limitations and findings of this study, some recommendations for future research may be made. First, researchers should conduct cross-cultural and interdisciplinary studies to examine the generalizability of the identified elements and explore potential variations in models that apply historical values to contemporary design. Second, longitudinal studies should

be conducted to investigate the dynamic nature of the application of the water wave pattern of the Ly-Tran dynasty to contemporary packaging design and the development influence of various factors over time. Third, future studies should use objective measures and data triangulation from multiple sources to minimise potential biases related to self-reported data (Podsakoff et al., 2003). Fourth, researchers should examine the relationship between the intention to apply and the actual use of historical value applications to understand the application process more comprehensively (Venkatesh et al., 2012). Finally, future studies should explore the potential censorship or mediating effects of organizational and individual characteristics on the application of the Ly- Tran dynasty water wave pattern to contemporary packaging design to develop more contextual and specific insights (Wang et al., 2016; Prayag & Ozanne, 2018).

VI.III. CONCLUDING REMARKS

The rapid progress of the contemporary design industry brings significant opportunities and challenges for the broad application of cultural values and the transmission of national historical stories further and directly to the psychology of shoppers. This study contributes to the understanding of the factors influencing the application of the water wave pattern of the Ly-Tran dynasty to contemporary packaging design in this field. It provides valuable insights for travel service providers, policymakers and researchers. By considering the technological, organisational, and environmental factors identified in this study, stakeholders can develop targeted strategies and interventions to promote adopting and successfully implementing the Ly-Tran dynasty water wave pattern applications into contemporary packaging design. As the design industry evolves in the digital age, embracing innovations and adoption will be critical to gaining a competitive advantage, enhancing the customer experience, and driving sustainable growth.

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