

Factors Influencing the Development of Signature Products with Competitive Advantages in Vinh Phuc Province, Vietnam, in Association with Tourism Development

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Abstract

Vietnam boasts a diverse range of rural tourism models such as eco-tourism, agricultural tourism, community tourism, cultural tourism, and craft village tourism. These models contribute not only to rural economic development but also to a deeper sense of pride and connection for local communities, as reflected in the tourism products they offer. Capitalizing on locally distinctive products not only enhances tourism development but also boosts the consumption and marketability of these goods. For rural areas to thrive in tourism, it is essential to invest in improving product quality, design, and storytelling—highlighting local materials, unique production methods, and cultural significance. These distinctive products serve as “cultural ambassadors,” showcasing regional traditions and lifestyles.

This article analyzes the key factors influencing the development of Vĩnh Phúc’s distinctive products that hold competitive advantages, in connection with tourism promotion. It also offers recommendations to enhance the development of these products amid growing international integration.

Keywords: Development, Distinctive products, Tourism, Vĩnh Phúc, Vietnam

1. Introduction

Located in northern Vietnam, Vĩnh Phúc is recognized not only as a key economic hub but also as a province rich in natural beauty and cultural heritage. It is home to numerous renowned tourist destinations such as Tam Dao, Tay Thien, and Dai Lai, which attract visitors with their picturesque landscapes and spiritual significance. Complementing these natural assets is a diverse array of local specialties that reflect the culinary traditions of the Red River Delta. These traditional dishes, rich in flavor and cultural identity, have long captivated both domestic and international food enthusiasts.

Vinh Phuc possesses substantial potential for tourism development, often referred to as a "smokeless industry." In recent years, the province has made efforts to harness this potential by linking tourism with the development of locally distinctive products. However, the current utilization of these products remains limited and underdeveloped compared to the province's inherent strengths. Most of these specialties are produced on a small scale—typically by households, small restaurants, or family-run businesses—and lack cohesive branding, consistent quality, and effective market outreach. Experiential tourism activities, such as culinary demonstrations and cultural showcases, have yet to be fully integrated into the tourism ecosystem. Unlike neighboring provinces, Vinh Phuc still lacks organized food streets and culinary markets that could serve as platforms for promoting its unique local offerings.

To increase public awareness of its signature products and to elevate their market presence, Vinh Phuc must adopt a more strategic approach to developing and promoting these goods in conjunction with tourism. This includes expanding market access, encouraging product innovation, and identifying new pathways to strengthen the province’s cultural brand. Enhancing the competitiveness of these distinctive products is essential not only for tourism development but also for sustainable economic growth.

Addressing the current challenges requires a comprehensive examination of the factors that influence the development of these products. A thorough understanding of these dynamics will enable local authorities, businesses, and communities to formulate effective, evidence-based solutions. In response to this pressing need, the authors of this study aim to contribute both theoretical insights and practical recommendations to support the sustainable development of Vĩnh Phúc's distinctive products as integral components of the province's tourism economy.

2. Literature Review

According to DTM Consulting (2021), distinctive products are consumer goods or services that possess unique characteristics or brand identities, prompting a significant segment of consumers to seek them out—despite higher costs and limited accessibility. These are not mass-market items but are targeted toward niche audiences who value authenticity, craftsmanship, or cultural connection. Locally distinctive products, in particular, are those that originate from regional materials or cultural practices, often associated with the heritage and identity of a specific place (Nguyen Thi Thu Huong, 2025).

Nguyen Thi Thu Huong (2025) further emphasizes that developing distinctive local products tied to tourism involves crafting offerings that are tailored to specific visitor segments. These products should reflect the essence of the destination, enhancing its appeal through cultural storytelling and differentiation. While such products are not the sole factor determining a destination's competitiveness, they play a decisive role in shaping tourist perceptions by offering something truly unique (Dao Thi Ai Thi & Nguyen Van Luu, 2023).

As noted by the Prime Minister of Vietnam (2024), global tourism trends are shifting toward values rooted in tradition (authenticity, cultural depth), pristine nature (untouched and original landscapes), and modern innovation (comfort and technological integration). However, regional and global economic crises have become significant obstacles, disrupting commerce, trade, and consumer behavior. Economic downturns, accompanied by rising unemployment and reduced household spending, directly impact travel demand. To ensure sustainable tourism development, countries must prioritize economic stability and avoid large-scale financial and trade disruptions (Le Van Minh, 2022).

Economic factors such as income levels, exchange rates, savings, inflation, and unemployment influence not only individual spending habits but also broader market dynamics in tourism. Mateusz Brodowicz (2024) notes that these variables affect interest rates and purchasing power, which in turn influence tourist behaviors and destinations' pricing strategies. The interdependence between tourism and sectors like agriculture, manufacturing, transport, construction, telecommunications, and finance is critical—when these sectors are underdeveloped, tourism also struggles to thrive (Le Van Minh, 2022).

Doan Manh Cuong (2022) points out that planning and preserving agricultural craft villages as tourism destinations requires long-term vision and strategic commitment from leadership. In some cases, unregulated competition and lack of coordination have led communities to abandon traditional crafts in favor of mass-market tourism. While this shift may yield

short-term profit, it often dilutes cultural identity and reduces the richness of local livelihoods—ultimately weakening tourism’s appeal (Ha Thi Thu Thuy, 2022).

The development of specialized tourism products must follow a structured process: market research, customer segmentation, competitive analysis, strategic positioning, product design, marketing, and post-sale service. As Dao Thi Ai Thi and Nguyen Van Luu (2023) explain, each element must be aligned to ensure that the final offering is authentic, high-quality, and responsive to niche demands. Whereas mass tourism seeks to standardize experiences for broad markets, niche tourism thrives on uniqueness and personalized value (Corina Larisa Bunghez, 2021).

In Hungary, a resurgence of regional products has become a central feature of tourism development. Tibor Gonda (2021) observes that such products are not only economically beneficial but also socially and environmentally valuable, anchoring tourist experiences in local authenticity. Likewise, I Wayan Koster highlights the cultural richness of Bali’s traditional villages—where local crafts, culinary practices, and sacred landscapes combine with agriculture and heritage preservation to create immersive visitor experiences (I.P.T. Anom, 2020).

In Vietnam, Tieu Thuy (2024) argues that linking distinctive tourism products across regions—each with its own unique identity—can extend visitor stays and diversify travel offerings. For such strategies to succeed, local governments and businesses must clearly understand consumer trends and their own core cultural assets. Differentiation from other regions and strong branding are essential, as is avoiding the homogenization of offerings (Vu Dinh Dong, 2025).

Infrastructure investment also plays a critical role. According to Dinh Bao (2023), local governments should allocate resources for upgrading roads, lighting systems, waste management, and public spaces near tourist sites. Modern preservation methods must be paired with cultural interpretation to enrich the visitor experience. Engaging local communities in storytelling around historical and cultural landmarks can create more meaningful and memorable tourism interactions (Vu Lan Huong & Nguyen Thuy Trang, 2024).

Technology, too, is transforming the tourism sector. Vu Trong Hung (2024) notes that digital tools have streamlined operations, reduced costs, and enhanced customer engagement. From mobile booking to virtual tours, technology now touches every aspect of the traveler’s journey. This shift toward digitalization also supports greater inclusivity, sustainability, and efficiency in the industry (Adelina Zeqiri et al., 2025).

The Thai government’s experience offers a compelling example of coordinated investment. Between 2016 and 2020, over 30% of Thailand’s national budget for tourism development was allocated to infrastructure, drawing in both domestic and foreign investors. The government promoted public-private partnerships (PPPs), creating a favorable environment for sustained tourism growth (Nguyen Thanh Huyen, 2023; Trang Anh, 2024).

Sustainable tourism also depends heavily on human capital. As Le Van Minh (2022) and Bui

Thi Nhu Hien (2023) argue, high-quality tourism services require a workforce with strong communication skills, professional expertise, and cultural awareness. Investing in education and vocational training is crucial to improving service quality, stimulating visitor spending, and creating jobs. In turn, the tourism sector contributes to broader economic development by generating both direct and indirect employment opportunities.

Finally, research by Huizhan Wang and Xinru Lu (2025) draws important connections between rural revitalization and tourism development. Their findings emphasize the need for collaborative models involving governments, businesses, communities, and individuals. Challenges such as limited education, weak legal enforcement, and low funding still constrain progress. To ensure sustainability, tourism products must be distinctive, irreplaceable, and strategically promoted (George Kofi Amoako et al., 2021).

3. Method

To examine the development of distinctive local products with competitive advantages linked to tourism, the research team applied a systemic approach, combining both qualitative and quantitative methods as follows:

(i) Direct Approach:

The team conducted on-site investigations and interviews with a diverse range of stakeholders, including researchers, government officials, business owners, cooperatives, and households in Vĩnh Phúc. These engagements were aimed at identifying and analyzing the practical factors that influence the development of local distinctive products in association with tourism.

(ii) Indirect Approach:

The researchers also reviewed existing reports, policy documents, and expert assessments issued by state agencies and tourism development organizations. This helped establish a broader context and theoretical basis for identifying influencing factors and proposing solutions to support the development of tourism-linked specialty products in Vĩnh Phúc.

(iii) Data Sources:

All data and statistical information used in the research were sourced from reputable authorities such as the General Statistics Office, the Department of Agriculture and Rural Development of Vĩnh Phúc, and the Vĩnh Phúc Department of Industry and Trade. Additionally, a field survey was conducted to evaluate stakeholder perceptions regarding key factors affecting the development of local products connected to tourism.

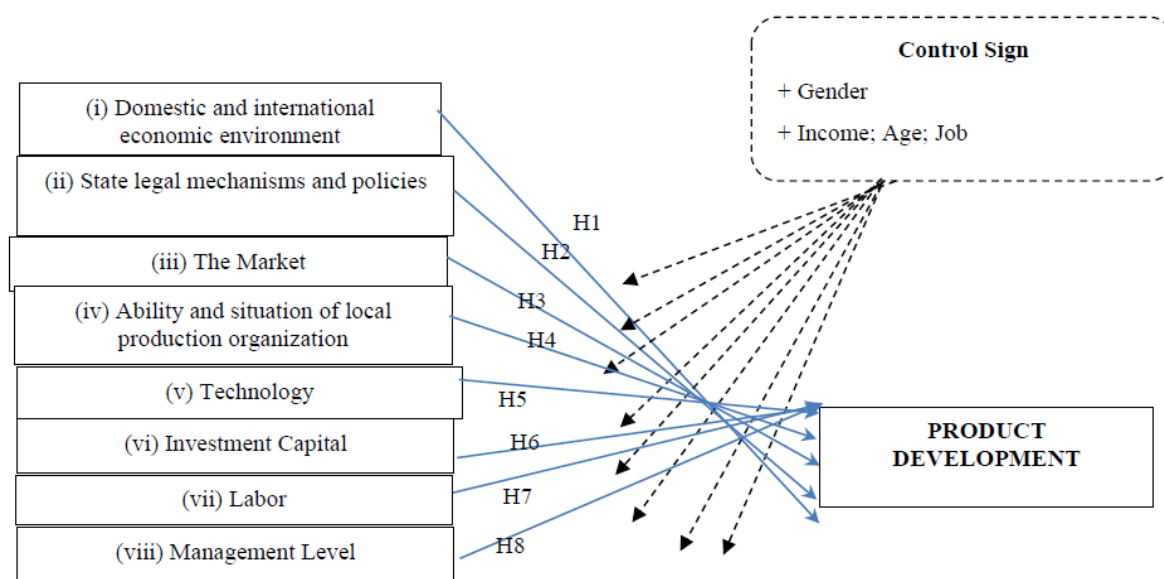


Figure 1. Theoretical model of factors affecting the development of local specialty products associated with tourism development

Source: proposed and compiled by the author group

All data and information used in this research were collected from reputable, publicly available sources both within and outside of Vietnam. These include the General Statistics Office, the Vinh Phuc Department of Agriculture and Rural Development, the Vinh Phuc Department of Industry and Trade, among others. Additionally, the research team conducted a field survey to evaluate the impact of various factors on the development of distinctive local products in Vinh Phuc in connection with tourism.

Research Design

To identify the factors influencing the development of distinctive products with competitive strengths in Vinh Phuc linked to tourism, the authors employed a quantitative approach to test the proposed research model and hypotheses (Figure 1). Given the novelty of the context, both preliminary and main studies were conducted to ensure the accuracy and relevance of the research design.

- Step 1: Literature Review

The authors reviewed existing literature from both domestic and international sources to identify relevant theoretical frameworks and previous findings related to the development of local tourism-linked products. This helped shape the research model and informed the selection of measurement scales for the study variables.

- Step 2: Preliminary Research

The preliminary phase involved both qualitative and small-scale quantitative methods:

- Qualitative Research: The goal was to refine the theoretical model and validate the relationships among variables. In-depth interviews and focus group discussions were conducted with researchers, government officials, and business managers in Vinh Phuc engaged in the production of distinctive products. These sessions explored key influencing factors, confirmed their relevance, and refined the terminology and content of measurement scales. A structured interview guide was developed to ensure consistency across interviews.
- Quantitative Pilot Study: Conducted with 50 participants, this phase aimed to assess the reliability and validity of the measurement scales and to standardize the language used. The results supported the proposed theoretical model and confirmed the appropriateness of the variables.
- Step 3: Full-Scale Quantitative Research

Based on insights from the preliminary study, the finalized model and variable scales were used to design a structured questionnaire. Data were collected through field surveys and analyzed using SPSS 22 to evaluate the reliability and validity of the measurement instruments and to test the research hypotheses.

- Step 4: Data Analysis and Recommendations

The collected data were analyzed using SPSS 22 to assess the scales, validate the research model, and test the proposed hypotheses. Based on the findings, the authors developed practical recommendations to support policy and strategic decision-making in Vinh Phuc.

Quantitative Research Methodology

The main objective of the quantitative research was to test the relationships among the identified influencing factors and to evaluate their respective impacts on the development of distinctive tourism-linked products in Vinh Phuc.

Survey Design and Development

The survey development process included:

- Identifying variables and selecting appropriate scales based on previous studies.
- Drafting a Vietnamese-language questionnaire, incorporating adapted measurement items.
- Conducting qualitative research to refine terminology and remove or revise unsuitable items.
- Conducting a pilot survey with 50 stakeholders to test reliability.

Survey Content

The finalized questionnaire consisted of two main parts:

- Part 1: Demographic information (gender, age, occupation, etc.).

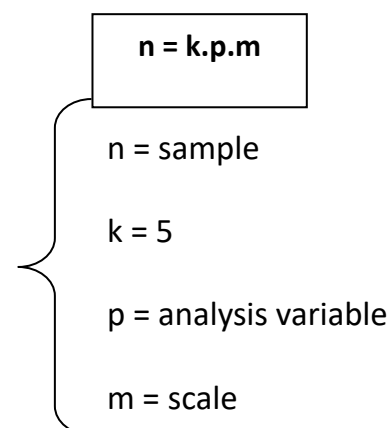
- Part 2: Core survey content measuring perceptions of factors affecting product development using a five-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

Sampling and Data Collection

The target respondents included researchers, government managers, cooperative leaders, business owners, and households involved in producing or supplying distinctive local products linked to tourism in Vinh Phuc. To ensure representativeness and comprehensive analysis, the research adopted a stratified random sampling method across different areas of the province.

Sample Size

Sample size is a crucial determinant of data reliability. While larger samples provide more accurate insights, they also require more time and resources. Referencing methods from Hoelter (1983), who recommended a minimum of 200, and Hair (2006), the study adopted a sample size of 299 valid responses out of 310 distributed questionnaires.



According to Bentler and Chou (1987), a commonly accepted rule for determining minimum sample size is to multiply the number of observed variables by five. With 42 observed variables in this study, the minimum required sample size is 210. This guideline was applied in determining the sample size for the present research.

Data Collection

The authors distributed structured questionnaires in person to collect information from respondents. The questionnaire was designed around eight factor groups believed to influence the development of distinctive local products with competitive advantages in Vinh Phuc linked to tourism. These groups included: (1) Domestic and global economic environment (MT1-MT3); (2) Government policies and regulatory frameworks (CS1-CS4); (3) Market dynamics (TT1-TT6); (4) Local production capacity and organizational structure (KN1-KN11); (5) Technology (CN1-CN6); (6) Capital investment (NV1-NV3); (7) Labor force (LD1-LD4); and (8) Management capacity (QL1-QL4). The dependent

variable—Product Development—was measured using three indicators (PT1-PT3).

A total of 310 questionnaires were distributed to researchers, state management officials, and business leaders involved in the production of distinctive tourism-linked products in Vinh Phuc. These were distributed across several key districts: Tam Dao, Tam Duong, Vinh Yen, Phuc Yen, Lap Thach, Binh Xuyen, Yen Lac, Vinh Tuong, and Song Lo. Out of these, 299 valid responses were received and included in the final dataset, exceeding the required minimum sample size.

Data Analysis Methods

The collected data were processed and analyzed using SPSS version 22. The process involved cleaning the data, validating entries, and applying several statistical techniques to examine the relationships among the study variables.

Descriptive Statistics

This method was used to summarize the demographic attributes of the sample, such as gender, age, and occupation. Additionally, descriptive statistics including mean, minimum, maximum, frequency, and percentage were used to evaluate the influence of each factor group on the development of distinctive local products.

Scale Reliability and Validity Testing

To assess the reliability and validity of the scales, the researchers applied Cronbach's Alpha and Exploratory Factor Analysis (EFA).

Cronbach's Alpha measures the internal consistency of a set of observed variables (survey items). Based on research by Hoang Trong and Chu Nguyen Mong Ngoc (2005), a scale is considered highly reliable with Alpha values of 0.8 or higher, and acceptable between 0.7 and 0.8. Other scholars (Nunnally, 1978; Peterson, 1994; Slater, 1995) argue that Alpha values above 0.6 are acceptable for new or context-specific concepts. However, Cronbach's Alpha does not indicate which items should be retained or removed. Therefore, item-total correlations are also used—items with correlations below 0.3 are typically removed unless doing so would violate content validity (Nguyen Dinh Tho & Nguyen Thi Mai Trang, 2011).

Exploratory Factor Analysis (EFA) is a multivariate technique used to identify underlying constructs among a set of variables. In this study, EFA was employed to reduce the 42 observed variables into a smaller set of meaningful factors. Criteria for conducting EFA included the Bartlett's Test of Sphericity (Sig. < 0.05) and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy ($0.5 \leq \text{KMO} \leq 1.0$). Variables with factor loadings below 0.5 or with minimal loading differences across multiple factors (< 0.3) were removed based on standards by Gerbing and Anderson (1988). Nonetheless, similar to the treatment of Cronbach's Alpha, items essential to the conceptual content were preserved even if statistical thresholds were marginal.

The study retained all scales with Cronbach's Alpha values of 0.6 or higher and eliminated items with item-total correlations below 0.3. EFA was performed using Principal Components

Analysis with Varimax rotation. Variables with factor loadings below 0.5 or cross-loadings within 0.3 across factors were excluded.

Correlation Analysis

Pearson correlation coefficients (r) were calculated to test the strength and direction of relationships between variables. A positive value of r indicates a direct relationship, while a negative value implies an inverse relationship. Coefficients close to ± 1 indicate strong relationships; values near zero indicate weak or no linear relationship. Correlation was considered statistically significant at $p < 0.05$ and highly significant at $p < 0.01$.

Regression Analysis

To test the proposed hypotheses and determine the impact of each factor group on product development, the authors employed multiple linear regression analysis. The model is expressed as:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \dots + \beta_8X_8 + \varepsilon$$

Where:

- Y is the dependent variable: Product Development
- X_1 to X_8 are the independent variables representing the eight factor groups
- β_0 is the intercept; β_1 to β_8 are partial regression coefficients
- ε is the random error term

Each independent variable was expected to have a positive influence on the dependent variable, indicating that improvements in these factors would lead to stronger product development outcomes.

4. Analysis of Factors Influencing the Development of Distinctive Products in Vinh Phuc Linked to Tourism

To assess the influence of various factors on the development of Vinh Phuc's distinctive tourism-linked products, a structured questionnaire was used featuring a 5-point Likert scale. Respondents rated each statement from 1 (Strongly Disagree) to 5 (Strongly Agree). A total of 310 questionnaires were distributed to a target group comprising researchers, government officials, business owners, cooperative representatives, and households involved in the production and supply of locally distinctive products. From this, 299 valid responses were collected, representing a strong response rate and a reliable sample for analysis.

Domestic and Global Economic Environment

Respondents were asked to evaluate the extent to which economic conditions influence the development of distinctive products in Vinh Phuc. The factor "domestic economic growth" emerged as the highest-rated item within this group, with a mean score of 4.15. Among the respondents, 41.1% strongly agreed and 36.2% agreed that local economic development significantly supports the promotion of unique local products.

In addition, the factor reflecting "global economic fluctuations"—including monetary tightening policies and reduced global consumer spending—also received considerable attention. Meanwhile, the criterion "living standards and global consumer demand for specialty products" achieved an average score of 3.96, with 33.2% of respondents strongly agreeing and 35.1% agreeing. These findings highlight that both domestic and international economic contexts play important roles in shaping market demand, influencing production planning, and determining the competitiveness of Vinh Phuc's distinctive products in the broader tourism economy.

Table 1. Survey results on domestic and world economic environment

| Encryption | Indicators | Proportion | | | | | Average value |
|------------|--|------------|-----|------|------|------|---------------|
| | | 1 | 2 | 3 | 4 | 5 | |
| MT1 | Fluctuations in the world economy (tight monetary policy to control inflation; trend of narrowing consumption, etc.) | 0.7 | 1.0 | 22.7 | 39.5 | 36.1 | 4.09 |
| MT2 | World people's living standards and demand for consumer products | 1.3 | 3.0 | 27.4 | 35.1 | 33.2 | 3.96 |
| MT3 | Domestic economic development | 1.0 | 1.7 | 20.1 | 36.1 | 41.1 | 4.15 |

(Source: Authors synthesized from survey results)

Government Mechanisms and Legal Frameworks: Survey results regarding the group of factors related to government mechanisms and legal frameworks revealed that most indicators scored at a moderately high level. The criteria "policies and regulations that promote the development of distinctive products—such as support for capital, technology, labor, and land access" and "alignment between national policy directions and local business strategies" received mean scores of 3.74 and 3.70, respectively. Specifically, 11.4% of respondents strongly agreed and 55.5% agreed with the first criterion, while 20.4% strongly agreed and 34.4% agreed with the second. The other two indicators—"a transparent, fair, and favorable investment and business environment" and "government support policies for product distribution across enterprises, cooperatives, and households"—received slightly lower mean scores of 3.54 and 3.52. These were supported by 10.7% and 13.7% of respondents strongly agreeing, and 36.1% and 33.4% agreeing, respectively. These results suggest that while the current policy framework provides a certain degree of support, there remains a need for refinement and greater coordination. Improving legal mechanisms and government policies will create more favorable conditions to support the development and competitiveness of distinctive local products tied to tourism in Vinh Phuc—and in other provinces across the country.

Table 2. Survey results on State legal mechanisms and policies

| Encryption | Indicators | Proportion | | | | | Average value |
|------------|--|------------|-----|------|------|------|---------------|
| | | 1 | 2 | 3 | 4 | 5 | |
| CS1 | Mechanisms, policies and laws promoting the development of the State's typical products (policies to support capital, technology, human resources, land) | 0.7 | 2.7 | 29.8 | 55.5 | 11.4 | 3.74 |
| CS2 | State policy to support consumption for businesses, cooperatives and households | 0.3 | 8.7 | 43.8 | 33.4 | 13.7 | 3.52 |
| CS3 | Open, favorable, transparent and fair business investment environment | 0 | 4.0 | 49.2 | 36.1 | 10.7 | 3.54 |
| CS4 | Connection, consensus and conformity between the State's orientation and local and business strategies in product development | 0 | 5.4 | 39.8 | 34.4 | 20.4 | 3.70 |

(Source: Authors synthesized from survey results)

The Market Factor

The “Market” factor is also considered to have a significant influence on the development of Vĩnh Phúc’s distinctive and competitive products in connection with tourism advancement. Among the related criteria, “Forecasting key market demand drivers (including demand for product quantity and quality)” and “Product competitiveness in terms of quality and service delivery” received the highest average scores in the group—4.19 and 4.16 respectively. These scores reflect strong levels of agreement, with 35.1% of respondents strongly agreeing and 53.8% agreeing with the former criterion, and 38.1% strongly agreeing and 44.8% agreeing with the latter.

The criterion “Availability of suitable suppliers to serve customers within target market segments” achieved an average score of 3.93, with 22.5% of participants strongly agreeing and 52.8% agreeing. Meanwhile, the criteria “Market identification (including target and competitive markets)” and “Price factors in the business market” received average scores of 3.86 and 3.80, respectively. These were supported by 22.1% and 18.4% of respondents strongly agreeing, and 46.8% and 54.2% agreeing.

The criterion “Market segmentation (by product groups, production sectors, etc.)” yielded a comparatively modest average score of 3.77, with 12.7% of respondents strongly agreeing and 55.9% agreeing. Although slightly lower, all these scores remain within a relatively high range, underscoring the influential role that the “Market” factor plays in shaping the development of Vĩnh Phúc’s distinctive products linked to tourism.

Therefore, in formulating strategic directions and development policies, it is essential for Vĩnh Phúc to clearly identify and align with market demand in order to ensure more appropriate and effective outcomes.

Table 3. Market Survey Results

| Encryption | Indicators | Proportion | | | | | Average value |
|------------|--|------------|-----|------|------|------|---------------|
| | | 1 | 2 | 3 | 4 | 5 | |
| TT1 | Identify the market (target market, competitive market) | 1.0 | 3.3 | 26.8 | 46.8 | 22.1 | 3.86 |
| TT2 | Market segmentation (by product groups, by manufacturing sector, etc.) | 1.3 | 1.3 | 28.8 | 55.9 | 12.7 | 3.77 |
| TT3 | Forecasting the main drivers of market demand (quantity demand, product quality) | 2.0 | 1.3 | 7.7 | 53.8 | 35.1 | 4.19 |
| TT4 | Product competitiveness in terms of quality and service provided | 0.7 | 3.3 | 13.0 | 44.8 | 38.1 | 4.16 |
| TT5 | The appropriate number of suppliers to serve customers in the market segment | 0.7 | 3.0 | 21.1 | 52.8 | 22.5 | 3.93 |
| TT6 | Price factors in business market | 2.3 | 6.4 | 18.7 | 54.2 | 18.4 | 3.80 |

(Source: Authors synthesized from survey results)

- Local Production Capacity and Organizational Conditions

Survey results regarding the factor “Local Production Capacity and Organizational Conditions” reveal that the criteria “Selecting appropriate production methods—traditional or modern—based on product types” and “Ensuring social order and security for tourist safety” were identified as the most influential within this group. These criteria received the highest average scores of 4.35 and 4.33, respectively. Notably, 50.4% of respondents strongly agreed and 38.6% agreed with the former, while 48.3% strongly agreed and 39.6% agreed with the latter. These findings underscore the importance of selecting suitable production methods and maintaining a secure, orderly environment as essential conditions for fostering the development of Vĩnh Phúc’s distinctive and competitive products in alignment with tourism growth.

To achieve effective product development, it is necessary to implement comprehensive strategies that support not only product enhancement but also community engagement. In this regard, the criteria “Comprehensive development policies for distinctive local products linked with tourism (e.g., financial, technological, and market-related policies)” and “Encouraging local residents to participate as producers and suppliers of distinctive local products connected with tourism” also recorded relatively high average scores of 4.15. These were supported by 33.2% and 34.6% of respondents strongly agreeing, and 52.3% and 50.4% agreeing, respectively.

Other notable criteria included “Quality of distinctive local products,” “Support for advanced equipment to facilitate traceability and quality control,” and “Supporting infrastructure and services (wastewater and solid waste treatment systems, sanitation, electricity and water supply, transportation, healthcare, banking, etc.).” These received average scores of 4.02, 3.95, and 3.90, respectively. These results indicate that production conditions—such as technical infrastructure and traceability support—alongside product quality, play a critical role in ensuring successful product development.

The criterion “Product characteristics based on specific sectors (agriculture, industry,

handicrafts, culture, tourism)” received an average score of 3.98, with 26.8% of respondents strongly agreeing and 51.1% agreeing. Many respondents noted that each production sector possesses distinct capabilities and organizational approaches, which, in turn, influence development strategies for each group of distinctive products in Vĩnh Phúc.

Finally, the remaining criteria—“Policies for developing distinctive products in tandem with environmental protection,” “Strong linkages among producers, suppliers, and regulatory agencies in product development,” and “Favorable natural conditions for developing local distinctive products”—received average scores of 3.97, 3.69, and 3.67, respectively. Although these values are slightly lower, they still reflect the relevance of broader contextual and policy-related factors in enhancing the production and promotion of Vĩnh Phúc’s competitive products within the tourism sector.

Table 4. Survey results on the ability and situation of local production organization

| Encryption | Indicators | Proportion | | | | | Average value |
|------------|--|------------|-----|------|------|------|---------------|
| | | 1 | 2 | 3 | 4 | 5 | |
| KN1 | Natural conditions are favorable for developing local specialty products. | 0.3 | 9.4 | 28.3 | 46.6 | 15.4 | 3.67 |
| KN2 | Comprehensive development policy of typical products with strengths associated with local tourism development (capital, technology, market policies, etc.) | 1.0 | 1.7 | 11.8 | 52.3 | 33.2 | 4.15 |
| KN3 | Policy on developing unique products associated with tourism development and environmental protection | 1.0 | 2.3 | 17.2 | 57.7 | 21.8 | 3.97 |
| KN4 | Choose traditional and modern production methods suitable for each type of product. | 1.3 | 1.3 | 8.4 | 38.6 | 50.4 | 4.35 |
| KN5 | Security and social order issues ensure safety for local tourists | 0.7 | 2.3 | 9.1 | 39.6 | 48.3 | 4.33 |
| KN6 | Encourage local people to participate as Producers and suppliers of local specialties associated with tourism development | 1.0 | 2.0 | 12.1 | 50.3 | 34.6 | 4.15 |
| KN7 | Quality products with local strengths | 1.3 | 4.7 | 12.5 | 54.0 | 27.5 | 4.02 |
| KN8 | Product characteristics by sector (agriculture, industry, handicrafts, culture, tourism) | 1.3 | 4.4 | 16.4 | 51.1 | 26.8 | 3.98 |
| KN9 | Support advanced equipment for product traceability and quality control. | 2.0 | 3.4 | 16.2 | 54.5 | 23.9 | 3.95 |
| KN10 | There is a close connection between the manufacturer and the supplier, the management agency in product development. | 1.0 | 7.0 | 33.8 | 38.5 | 19.7 | 3.69 |
| KN11 | Technical infrastructure and support services (wastewater treatment system, garbage, toilets, electricity, water supply, transportation, healthcare, banking...) ensure requirements | 0 | 5.4 | 26.1 | 42.1 | 26.4 | 3.90 |

(Source: Authors synthesized from survey results)

● Technology Factor

Survey findings on the “Technology” factor indicate that most criteria received moderately high average scores, reflecting a generally positive assessment of the role of technology in developing Vĩnh Phúc’s distinctive products linked to tourism. Among these, the criterion

“Research and development of new technologies” achieved the highest average score in the group, at 3.42, with 12.5% of respondents strongly agreeing and 36.4% agreeing. This suggests that there is a strong need for Vĩnh Phúc to enhance its efforts in technological research and innovation to better support the development of its competitive local products within the tourism sector.

The criterion “Regulations on specific industry standards” followed closely with an average score of 3.39, supported by 10.4% of respondents strongly agreeing and 36.8% agreeing. Similarly, the criteria “Regulations and technical requirements that producers must comply with” and “Development of digital platforms to broaden market access” received average scores of 3.37 and 3.36, respectively. These were endorsed by 9.0% and 38.1% of respondents (for the former), and 10.7% and 34.4% (for the latter).

The remaining criteria—“Data security regulations” and “Product safety regulations”—each recorded average scores of 3.33. While these figures are somewhat modest, they nonetheless highlight the importance of strengthening the technological foundation in Vĩnh Phúc, particularly in terms of regulatory compliance, safety standards, and information security.

Overall, the results suggest that Vĩnh Phúc should prioritize technological advancement and the enforcement of relevant standards and safeguards as key components in its strategy to develop distinctive and competitive local products in conjunction with tourism development.

Table 5. Technology Survey Results

| Encryption | Indicators | Proportion | | | | | Average value |
|------------|--|------------|------|------|------|------|---------------|
| | | 1 | 2 | 3 | 4 | 5 | |
| CN1 | Information Security Regulations | 1.7 | 17.7 | 35.1 | 36.5 | 9.0 | 3.33 |
| CN2 | Regulations and Technical Factors Manufacturers Must Follow | 2.0 | 15.1 | 35.8 | 38.1 | 9.0 | 3.37 |
| CN3 | Product Safety Regulations | 1.3 | 18.7 | 32.8 | 39.5 | 7.7 | 3.33 |
| CN4 | Research and Development of New Technologies | 2.4 | 14.8 | 34.0 | 36.4 | 12.5 | 3.42 |
| CN5 | Regulations on Industry-Specific Standards | 2.3 | 13.4 | 37.1 | 36.8 | 10.4 | 3.39 |
| CN6 | Development of Digital Technology Platforms that Provide Greater Market Access | 1.7 | 16.7 | 36.5 | 34.4 | 10.7 | 3.36 |

(Source: Authors synthesized from survey results)

● Investment Capital

Investment capital is an indispensable factor in the development of Vĩnh Phúc’s distinctive and competitive products in alignment with tourism growth. Among the criteria assessed, “Increase in investment capital from domestic individuals and enterprises” received the highest average score in this group, at 3.80. This was supported by 24.7% of respondents strongly agreeing and 40.8% agreeing. At present, this source of funding is considered to have a significant impact on the local product development landscape.

In parallel, public investment also plays an important role. The criterion “Increase in funding from the state budget” received an average score of 3.78, with 26.1% of respondents strongly agreeing and 37.1% agreeing. Meanwhile, the criterion “Increase in foreign investment”

recorded a slightly lower average score of 3.63, supported by 18.4% strongly agreeing and 38.8% agreeing.

Overall, the majority of criteria in this group scored at moderately high levels. These results indicate that Vĩnh Phúc must implement more effective policies to attract and optimize both domestic and international investment capital. Such efforts are essential to advancing the development of the province's unique products and leveraging them as key assets in tourism promotion and economic growth.

Table 6. Investment Capital Survey Results

| Encryption | Indicators | Proportion | | | | | Average value |
|------------|--|------------|-----|------|------|------|---------------|
| | | 1 | 2 | 3 | 4 | 5 | |
| NV1 | There is an increase in capital from the State budget | 2.0 | 7.0 | 27.8 | 37.1 | 26.1 | 3.78 |
| NV2 | There is an increase in investment capital from individuals and domestic enterprises | 2.7 | 4.7 | 27.1 | 40.8 | 24.7 | 3.80 |
| NV3 | There is an increase in foreign investment capital | 3.3 | 5.7 | 33.8 | 38.8 | 18.4 | 3.63 |

(Source: Authors synthesized from survey results)

- **Labor Force**

Survey results indicate that the “Labor Force” factor has a moderately strong influence on the development of Vĩnh Phúc’s distinctive and competitive products in connection with tourism. Among the criteria, “Local residents’ awareness of environmental protection” and “Local labor equipped with skills such as foreign languages and customer service” received the highest average scores, at 3.97 and 3.84, respectively. These were supported by 23.1% and 53.5% of respondents (for the former), and 16.1% and 55.5% (for the latter) strongly agreeing and agreeing.

Other related criteria, such as “Local labor equipped with professional knowledge” and “Friendly attitude of local people toward customers (tourists),” received average scores of 3.75 and 3.62, respectively. These were endorsed by 11.7% and 54.2% of respondents (for the former), and 12.4% and 41.8% (for the latter).

The criterion “Responsibility, proactiveness, and community guidance in product development by local labor” recorded the lowest average score within the group, at 3.58, yet still within a relatively high range. It was supported by 11.7% strongly agreeing and 43.5% agreeing.

These findings suggest that to effectively promote the development of local signature products tied to tourism, Vĩnh Phúc must implement robust policies that not only expand the labor force but also enhance its quality. Focused efforts on upskilling, environmental awareness, service orientation, and local engagement will be essential to building a workforce capable of supporting sustainable tourism and product development.

Table 7. Labor Survey Results

| Encryption | Indicators | Proportion | | | | | Average value |
|------------|---|------------|-----|------|------|------|---------------|
| | | 1 | 2 | 3 | 4 | 5 | |
| LD1 | Local workers are equipped with professional knowledge | 1.0 | 1.0 | 32.1 | 54.2 | 11.7 | 3.75 |
| LD2 | Local workers are equipped with skills: foreign languages, customer care, etc. | 0.7 | 2.7 | 25.1 | 55.5 | 16.1 | 3.84 |
| LD3 | Local people are friendly towards customers (tourists) | 0.7 | 3.0 | 42.1 | 41.8 | 12.4 | 3.62 |
| LD4 | Local people are aware of environmental protection | 0.3 | 2.3 | 20.7 | 53.5 | 23.1 | 3.97 |
| LD5 | Responsibility, forecasting, community guidance in product development of local workers | 2.7 | 3.7 | 38.5 | 43.5 | 11.7 | 3.58 |

(Source: Authors synthesized from survey results)

- Management Capacity

Survey results reveal that “Management Capacity” is widely regarded as a factor with a meaningful impact on the development of Vĩnh Phúc’s distinctive and competitive products linked to tourism. The criterion “Clear delineation of functions, responsibilities, authority, and relationships among stakeholders involved in product development” received the highest average score within this group, at 3.46. This was supported equally by 20.7% of respondents strongly agreeing and 20.7% agreeing.

Two other criteria—“Management adherence to unified development strategies” and “Knowledge and skills of managers”—both received average scores of 3.28. The criterion “Management effectiveness in achieving predetermined development goals” recorded the lowest average within the group, at 3.19, with 6.0% of respondents strongly agreeing and 19.4% agreeing. Despite the relatively modest scores, the responses still indicate a generally moderate influence of this factor.

It is notable, however, that this group of criteria had a relatively high rate of neutral or uncertain responses, ranging from 58.5% to 64.9%. This suggests a degree of ambiguity or lack of clarity among respondents regarding the current state of management capacity in product development.

These findings highlight the need for Vĩnh Phúc to strengthen its management systems through clearer role definitions, consistent implementation of strategic plans, and enhanced managerial expertise. Improving governance and coordination among stakeholders will be key to fostering the sustainable development of the province’s signature products in synergy with its tourism sector.

Table 8. Management Level Survey Results

| Encryption | Indicators | Proportion | | | | | Average value |
|------------|--|------------|------|------|------|------|---------------|
| | | 1 | 2 | 3 | 4 | 5 | |
| QL1 | Management ensures that predetermined goals are achieved in product development | 0.3 | 11.7 | 62.5 | 19.4 | 6.0 | 3.19 |
| QL2 | Management adheres to unified directions in product development | 0.3 | 7.7 | 64.2 | 19.4 | 8.4 | 3.28 |
| QL3 | Clearly define the functions, tasks, authorities and relationships of members involved in product development activities | 0 | 8.0 | 58.5 | 12.7 | 20.7 | 3.46 |
| QL4 | Knowledge and skills of managers | 0 | 9.0 | 64.9 | 15.1 | 11.0 | 3.28 |

(Source: Authors synthesized from survey results)

- Product Development

Survey results on the “Product Development” factor indicate that it holds a moderate level of influence on the growth of Vĩnh Phúc’s distinctive and competitive products in connection with tourism. The criterion “Product development contributes to increasing the number of tourists visiting, experiencing, and purchasing the locality’s signature products in relation to tourism development” received an average score of 3.50. This was supported by 7.7% of respondents strongly agreeing and 44.8% agreeing.

Two additional criteria—“In your opinion, the organization/unit needs to enhance the development of distinctive local products linked with tourism” and “The development of these products leads to increased revenue for businesses, cooperatives, and households”—both received an average score of 3.47. The former was supported by 4.3% of respondents strongly agreeing and 47.2% agreeing, while the latter saw 3.0% strongly agreeing and 49.5% agreeing.

These findings reflect a general consensus on the positive economic and experiential impacts of product development within the local tourism context. Although the levels of strong agreement were modest, the relatively high percentage of agreement overall demonstrates that stakeholders recognize the potential of product development to enhance both tourist attraction and revenue generation for local economic actors.

Table 9. Product Development Survey Results

| Encryption | Indicators | Proportion | | | | | Average value |
|------------|---|------------|-----|------|------|-----|---------------|
| | | 1 | 2 | 3 | 4 | 5 | |
| PT1 | According to you, your unit needs to increase the level of development of local specialty products associated with tourism development | 1.3 | 5.7 | 41.5 | 47.2 | 4.3 | 3.47 |
| PT2 | Does developing local specialty products associated with tourism development increase the revenue of enterprises/cooperatives/households? | 1.0 | 6.4 | 40.1 | 49.5 | 3.0 | 3.47 |
| PT3 | Does product development increase the number of tourists visiting, experiencing, and purchasing local specialty products associated with tourism development? | 1.7 | 7.0 | 38.8 | 44.8 | 7.7 | 3.50 |

(Source: Authors synthesized from survey results)

5. Results of the Factor Analysis on Elements Influencing the Development of Distinctive Strength-based Products in Vinh Phuc Associated with Tourism Development

(1) Cronbach's Alpha Reliability Test:

This study employed the Cronbach's Alpha reliability test to assess the internal consistency of factors influencing the development of Vĩnh Phúc's distinctive and competitive products in relation to tourism development. This evaluation served to validate the reliability and appropriateness of the survey instrument prior to conducting further analysis on the impact of these factors.

Using SPSS software, the study applied Cronbach's Alpha (CA) analysis to examine the reliability of the observed variables included in the questionnaire. A high level of reliability is considered to be achieved when the overall CA score exceeds 0.6 and item-total correlations are greater than 0.3.

The Cronbach's Alpha results for the factors influencing the development of Vĩnh Phúc's distinctive products in conjunction with tourism are presented in Table 10.

Table 10. Cronbach's Alpha test results

| Observation Variables | Mean Scale if Variable Excluded | Scale Variance if Variable Excluded | Variance-Total Correlation | Cronbach's Alpha if Variable Excluded | Cronbach's Alpha Total |
|--|---------------------------------|-------------------------------------|----------------------------|---------------------------------------|------------------------|
| Domestic and international economic environment | | | | | |
| MT1 | 8.10 | 2.422 | 0.551 | 0.681 | 0.744 |
| MT2 | 8.24 | 2.177 | 0.551 | 0.684 | |
| MT3 | 8.05 | 2.202 | 0.610 | 0.611 | |
| State legal policies and mechanisms | | | | | |
| CS1 | 10.75 | 3.960 | 0.658 | 0.745 | 0.807 |
| CS2 | 10.98 | 3.620 | 0.623 | 0.760 | |
| CS3 | 10.96 | 4.042 | 0.595 | 0.772 | |
| CS4 | 10.79 | 3.588 | 0.630 | 0.756 | |
| The market | | | | | |
| TT1 | 19.86 | 12.043 | 0.751 | 0.912 | 0.922 |
| TT2 | 19.94 | 12.902 | 0.690 | 0.919 | |
| TT3 | 19.53 | 11.861 | 0.840 | 0.900 | |
| TT4 | 19.55 | 11.853 | 0.800 | 0.905 | |
| TT5 | 19.78 | 12.126 | 0.796 | 0.906 | |
| TT6 | 19.91 | 11.482 | 0.792 | 0.906 | |
| Ability and situation of local production organization | | | | | |
| KN1 | 40.45 | 26.836 | 0.443 | 0.832 | 0.839 |
| KN2 | 39.97 | 26.033 | 0.625 | 0.817 | |
| KN3 | 40.15 | 26.016 | 0.636 | 0.816 | |
| KN4 | 39.77 | 25.528 | 0.660 | 0.814 | |
| KN5 | 39.80 | 25.473 | 0.678 | 0.812 | |
| KN6 | 39.97 | 25.219 | 0.720 | 0.809 | |
| KN7 | 40.11 | 25.259 | 0.654 | 0.814 | |
| KN8 | 40.15 | 25.931 | 0.557 | 0.822 | |
| KN9 | 40.17 | 25.298 | 0.645 | 0.814 | |
| KN10 | 40.44 | 29.875 | 0.083 | 0.863 | |
| KN11 | 40.23 | 29.556 | 0.131 | 0.858 | |

| | | | | | |
|---------------------|-------|--------|-------|-------|-------|
| Technology | | | | | |
| CN1 | 16.84 | 15.640 | 0.790 | 0.905 | 0.921 |
| CN2 | 16.80 | 15.786 | 0.780 | 0.906 | |
| CN3 | 16.85 | 15.821 | 0.782 | 0.906 | |
| CN4 | 16.75 | 15.363 | 0.790 | 0.905 | |
| CN5 | 16.78 | 15.631 | 0.793 | 0.905 | |
| CN6 | 16.82 | 16.034 | 0.715 | 0.915 | |
| Investment capital | | | | | |
| VDT1 | 7.43 | 3.099 | 0.681 | 0.820 | 0.847 |
| VDT2 | 7.41 | 3.150 | 0.690 | 0.810 | |
| VDT3 | 7.59 | 2.935 | 0.776 | 0.728 | |
| Labor Force | | | | | |
| NLD1 | 15.00 | 6.332 | 0.649 | 0.825 | 0.851 |
| NLD2 | 14.91 | 6.026 | 0.707 | 0.809 | |
| NLD3 | 15.13 | 6.024 | 0.680 | 0.816 | |
| NLD4 | 14.78 | 6.097 | 0.675 | 0.818 | |
| NLD5 | 15.17 | 5.927 | 0.612 | 0.837 | |
| Management level | | | | | |
| QL1 | 10.02 | 3.865 | 0.513 | 0.733 | 0.764 |
| QL2 | 9.93 | 3.539 | 0.643 | 0.668 | |
| QL3 | 9.75 | 3.034 | 0.633 | 0.670 | |
| QL4 | 9.93 | 3.797 | 0.482 | 0.749 | |
| Product development | | | | | |
| PT1 | 6.97 | 1.674 | 0.762 | 0.631 | 0.810 |
| PT2 | 6.97 | 1.905 | 0.636 | 0.763 | |
| PT3 | 6.95 | 1.742 | 0.591 | 0.817 | |

Source: Author's calculation via SPSS 22

Cronbach's Alpha Results for Observed Variables Across Influencing Factors

The Cronbach's Alpha (CA) results demonstrate the appropriateness and reliability of the observed variables within each factor, as detailed below:

- Domestic and Global Economic Environment:

The factor "Domestic and Global Economic Environment" was assessed through three observed variables, coded MT1 to MT3. The overall CA score reached 0.744, which is higher than any of the CA scores calculated if any single variable were removed. Additionally, all item-total correlations for these three observed variables exceeded the 0.3 threshold. This indicates that all three variables are reliable and suitable for representing the factor "Domestic and Global Economic Environment" in relation to the development of Vĩnh Phúc's distinctive tourism-linked products.

- Government Mechanisms, Policies, and Legal Framework:

This factor includes four observed variables, labeled CS1 to CS4. The overall Cronbach's Alpha score was 0.807, exceeding the CA scores that would result from removing any individual variable. Furthermore, all item-total correlations were above 0.3. These results confirm that the four variables used to measure the "Government Mechanisms, Policies, and Legal Framework" are highly reliable and will be retained for subsequent analysis.

- **Market:**

The influence of the “Market” factor was evaluated using six observed variables, from TT1 to TT6. The overall CA score was exceptionally high at 0.922, and the CA values if any individual variable were removed remained above 0.9, indicating strong internal consistency. Item-total correlations for all variables exceeded 0.6, signifying a high degree of reliability. Therefore, all six variables will be retained for further analysis of the “Market” factor’s influence on the development of Vĩnh Phúc’s competitive products in tourism.

- **Local Production Capacity and Organizational Conditions:**

This factor originally included 11 observed variables, labeled KN1 to KN11. The CA values calculated for the subset from KN1 to KN9 were all above 0.81, confirming strong internal consistency. The overall CA score was 0.839, which exceeded the CA values if any single variable in that subset were removed. However, two variables—KN10 and KN11—had item-total correlation values below 0.3, suggesting weaker reliability. As a result, these two variables were excluded, and the Cronbach’s Alpha test was recalculated. The updated results are presented as follows:

Table 11. Cronbach's Alpha test after variable removal

| Observation Variables | Mean Scale if Variable Excluded | Scale Variance if Variable Excluded | Variance-Total Correlation | Cronbach's Alpha if Variable Excluded | Cronbach's Alpha Total |
|--|---------------------------------|-------------------------------------|----------------------------|---------------------------------------|------------------------|
| Ability and situation of local production organization | | | | | |
| KN1 | 32.88 | 24.204 | 0.489 | 0.894 | 0.895 |
| KN2 | 32.40 | 23.362 | 0.692 | 0.881 | |
| KN3 | 32.58 | 23.555 | 0.672 | 0.883 | |
| KN4 | 32.20 | 22.813 | 0.734 | 0.878 | |
| KN5 | 32.22 | 23.038 | 0.712 | 0.880 | |
| KN6 | 32.39 | 22.692 | 0.770 | 0.875 | |
| KN7 | 32.53 | 23.027 | 0.659 | 0.884 | |
| KN8 | 32.57 | 23.698 | 0.558 | 0.892 | |
| KN9 | 32.60 | 23.005 | 0.658 | 0.884 | |

Source: Author's calculation via SPSS 22

- **Extended Cronbach’s Alpha Results**

The updated analysis showed that the Cronbach’s Alpha values, if individual variables from KN1 to KN9 were removed, all exceeded 0.883, indicating strong reliability. In addition, the item-total correlations for all nine variables were above 0.4. These findings confirm that the observed variables used in the questionnaire are highly reliable. Therefore, all nine observed variables will be retained in the analysis, with a final overall CA score of 0.895.

- **Technology:**

The “Technology” factor consists of six observed variables (CN1 to CN6). All six variables had CA values above 0.9 if removed and item-total correlations greater than 0.7, indicating very strong internal consistency. The overall CA score was 0.921, exceeding all CA values if

any individual variable were excluded. As such, all six observed variables will be included in the subsequent analysis.

- Investment Capital:

This factor includes three observed variables (VDT1 to VDT3). Each variable demonstrated a CA value above 0.7 if removed, indicating strong reliability. The overall CA score was 0.847, also higher than the CA values if any variable were excluded. All three observed variables will therefore be retained for further analysis.

- Labor Force:

The “Labor Force” factor comprises five observed variables (NLD1 to NLD5). All variables showed CA values above 0.8 if removed, confirming strong internal consistency. The overall CA score was 0.851, supporting the retention of all five observed variables in the analysis.

- Management Capacity:

This factor includes four observed variables (QL1 to QL4). Each variable recorded a CA value above 0.66 if removed, reflecting good reliability. The overall CA score for this factor was 0.764, exceeding all individual CA removal scores, justifying the inclusion of all four variables in the final analysis.

- Summary of Observed Variables:

Across the eight influencing factors, all 39 observed variables had item-total correlation values greater than 0.3, and their overall CA scores were within acceptable to excellent reliability thresholds. These results confirm that the observed variables used in the questionnaire are consistent and statistically sound for research purposes. Consequently, all 39 variables will be utilized in the subsequent analytical stages of the study.

Additionally, the dependent variable, represented by three observed measures, also demonstrated satisfactory reliability. Each variable had a CA-if-item-removed score above 0.6 and a minimum item-total correlation of 0.5—well above the acceptable threshold of 0.3. These findings validate the inclusion of all three observed variables for the dependent construct in this research.

(2) Multivariate Regression Model Testing

This study employed a multivariate linear regression model to analyze the relationship between the dependent variable, Product Development (PT), and the independent variables: Domestic and Global Economic Environment (MT), Government Mechanisms and Policies (CS), Market (TT), Local Production Capacity and Organizational Conditions (KN), Technology (CN), Investment Capital (NV), Labor Force (LD), and Management Capacity (QL). The model is expressed as follows:

$$PT = \alpha + \beta_1 MT + \beta_2 CS + \beta_3 TT + \beta_4 KN + \beta_5 CN + \beta_6 NV + \beta_7 LD + \beta_8 QL + \epsilon_i$$

The study utilized SPSS version 22 to perform multivariate linear regression analysis, which produced specific and detailed results.

Table 12. ANOVA

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|-----|-------------|---------|-------------------|
| 1 | Regression | 99.066 | 8 | 12.383 | 167.626 | .000 ^b |
| | Residual | 21.350 | 289 | .074 | | |
| | Total | 120.416 | 297 | | | |

Source: Author's calculation via SPSS 22

The ANOVA test results indicate that the F-test is significant, with a p-value of 0.000 (<0.05) (Table 22). This demonstrates that the multivariate regression model employed in the study is statistically significant for examining the impact of various factors on the development of Vĩnh Phúc's distinctive products linked to tourism. Furthermore, the adjusted R-squared value shows that the independent variables included in the regression model explain a substantial 81.8% of the variance in the dependent variable, Product Development (Table 23).

Table 13. Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Durbin-Watson |
|-------|-------------------|----------|-------------------|----------------------------|---------------|
| 1 | .907 ^a | .823 | .818 | .27180 | 1.894 |

Source: Author's calculation via SPSS 22

The factors used to assess their influence on the development of Vĩnh Phúc's distinctive products linked to tourism do not exhibit multicollinearity, as all Variance Inflation Factor (VIF) values are below 2. Moreover, each selected factor significantly impacts the dependent variable, D, as indicated by the t-test significance levels for all independent variables being less than 0.05.

Table 14. Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | Collinearity Statistics | |
|-------|------------|-----------------------------|------------|---------------------------|---------|------|-------------------------|-------|
| | | B | Std. Error | Beta | | | Tolerance | VIF |
| 1 | (Constant) | (1.466) | .178 | | (8.248) | .000 | | |
| | MT | .328 | .028 | .365 | 11.590 | .000 | .617 | 1.620 |
| | CS | .158 | .031 | .156 | 5.098 | .000 | .652 | 1.534 |
| | TT | .332 | .027 | .360 | 12.117 | .000 | .697 | 1.436 |
| | KN | .066 | .025 | .066 | 2.617 | .009 | .974 | 1.027 |
| | CN | .045 | .020 | .056 | 2.197 | .029 | .935 | 1.070 |
| | NV | .056 | .019 | .074 | 2.942 | .004 | .980 | 1.021 |
| | LD | .134 | .032 | .127 | 4.241 | .000 | .684 | 1.462 |
| | QL | .182 | .031 | .174 | 5.943 | .000 | .719 | 1.391 |

Source: Author's calculation via SPSS 22

The multivariate linear regression model is expressed as follows:

$$PT = (1.466) + 0.328MT + 0.158CS + 0.332TT + 0.066KN + 0.045CN + 0.056NV + 0.134LD + 0.182QL + \varepsilon_i$$

Based on the above multivariate linear regression results, the study identifies that the factor exerting the strongest influence on the development of Vĩnh Phúc's distinctive products linked to tourism is the Market (TT), accounting for 33.2% of the impact. In other words, the market factor explains 33.2% of the variance in the development of these signature products.

The Domestic and Global Economic Environment (MT) ranks second with a substantial influence of 32.8%. The Management Capacity (QL) holds the third strongest impact at 18.2%, followed by the Government Mechanisms, Policies, and Legal Framework (CS) at 15.8%. The Labor Force (LD) ranks fifth with an influence of 13.4%.

The Local Production Capacity and Organizational Conditions (KN) exert the sixth strongest effect, contributing 6.6%. Investment Capital (NV) holds the seventh position with an influence of 5.6%, while Technology (CN) ranks eighth, with an impact of 4.5%.

6. Recommendations for Promoting the Development of Vinh Phuc Province's Distinctive and Competitive Products Linked to Tourism Development

- **Market Development:**

Vinh Phuc Province should design and promote tourism packages that combine cultural heritage sites, historical relics, and scenic landscapes to create attractive destinations. Additionally, developing cultural heritage tours that incorporate local experiences such as festivals, cuisine, and traditional craft villages will further attract tourists to the province's unique cultural assets, historical sites, architectural-artistic works, and natural landmarks. For example, at Binh Son Tower, cultural and religious tourism programs accessible by road should be developed, connecting the site with other cultural spaces and historical-religious relics within Tam Son town, Song Lo district (such as Truc Lam Tue Duc Zen Monastery, Bach Temple, and the shrine of General Tran Nguyen Han), as well as other nationally recognized sites like Tay Thien scenic spot, Tho Tang communal house, and the Hùng Temple National Tourist Area (Phu Tho Province).

Moreover, river-based experiential tours linking Binh Son Tower with destinations along the Lo River (via Then ferry) can be established, alongside craft village tours connecting Binh Son Tower, Vĩnh Khánh Pagoda with traditional craft villages and rural tourism spots in Song Lo district.

A comprehensive and detailed plan for experiential agricultural tourism should be developed, including identifying potential zones, zoning functional areas, and sustainable development directions. Existing agricultural tourism models should be linked to form continuous routes that enhance appeal and convenience for visitors.

Craft villages should be planned as integrated tourism, festival, and attraction points to draw domestic and international visitors. Beyond general planning, detailed blueprints for each village and craft should be formulated promptly.

- **Management Capacity:**

The provincial government should enhance the efficiency and strengthen state management

of cultural heritage. It is imperative to rigorously review and evaluate projects and applications for restoration and renovation of historical-cultural relics, religious and belief constructions using socialized funding and funds under Resolution No. 71/2019/NQ-HĐND dated October 23, 2019. This process must ensure the preservation of the original values of relics and compliance with legal procedures. Research efforts should be intensified to prepare scientific dossiers for provincial-level heritage recognition, upgrading national heritage statuses, nominations for national treasures, intangible cultural heritage listings, and UNESCO recognition plans. Particularly, dossiers for the Tay Thien Mother Worship ceremony should be prepared to nominate it as a UNESCO Intangible Cultural Heritage of Humanity.

The provincial authorities should facilitate cooperation among localities, businesses, and communities to develop distinctive agricultural products, enhancing competitive strength and expanding markets. Support for investors in connecting with domestic and international tourism markets through investment promotion events and tourism marketing is crucial. The Provincial People's Committee must provide direct, comprehensive guidance to departments, agencies, and assisting bodies in formulating detailed development plans for craft villages and handicrafts linked with tourism at district, commune, and ward levels, aligned with socioeconomic and tourism development master plans.

- **Government Mechanisms, Policies, and Legal Framework:**

The Vietnamese government should support Vinh Phuc in building and protecting the brands of distinctive products such as Dai Minh pomelo, tea, Huong Canh pottery, Thanh Lãng rice wine, and clean vegetables. Registering geographical indications and collective trademarks will ensure wide recognition, prevent counterfeit products, and elevate the value and reputation of these products in domestic and international markets. This is a vital step to build trust and strong identity for Vinh Phuc's signature products.

Additionally, government investment support is needed to upgrade tourism infrastructure and services, especially in key areas like Tam Dao, Dai Lai Lake, and traditional craft villages. Modernization of transportation, electricity, water, and telecommunications systems is essential to facilitate connectivity between tourist sites and production areas. Quality infrastructure not only attracts tourists but also enhances their experience, driving sustainable tourism growth. Development of high-quality resorts, hotels, and restaurants should be prioritized to meet the increasing demands of domestic and international visitors.

- **Labor Force:**

The provincial government should encourage and prioritize the development of local human resources in the production of agricultural products linked to tourism, focusing on youth, women, and idle labor. Authorities must implement effective long-term training programs to enhance skills and confidence for those engaged in tourism-linked product development and service quality improvement. Specialized training on agricultural tourism for farmers and managers—covering management, marketing, and tourism services—should be organized.

Local personnel should be enabled to learn from successful agricultural tourism models both

domestically and internationally. For state management staff and tourism businesses, standardizing and professionalizing tourism services, particularly craft village tourism, is vital. State management agencies should support craft villages in connecting with tourism enterprises within the province.

For tour guides at tourist sites, ongoing training to improve knowledge of local culture, history, heritage sites, and foreign languages is necessary to raise professionalism. For craft village residents, awareness campaigns on the role and benefits of craft village tourism should be intensified. Vocational training and skill transmission to young workers are essential for preservation and development of crafts. Encouraging diversification of craft products to meet market demand while maintaining unique village characteristics is important. Residents should also be equipped with tourism-related skills such as guiding production processes, communication, product introduction and promotion, and souvenir making.

- **Local Production Capacity and Organization:**

Research and pilot projects should be implemented to conserve traditional festivals, arts, and crafts compatible with local conditions, enhancing their contemporary relevance. Ethnic minority districts should be supported to develop 2-3 traditional crafts and folk art forms linked with characteristic tourism activities, contributing to poverty reduction and socioeconomic development.

The development of cultural heritage tourism, historical relics, architectural-artistic landmarks, and natural scenic spots should be integrated with other provincial specialties such as cuisine, handicrafts, and agricultural products. Cultural experience programs—such as craft village visits, local culinary tastings, and participation in traditional festivals—should be organized to raise tourist awareness of the province’s cultural and natural heritage.

- **Investment Capital:**

In addition to effectively utilizing state funds for heritage restoration, socialized capital is considered a crucial resource to partially meet restoration demands amid limited state budgets. Therefore, policies encouraging investment and voluntary contributions from organizations and individuals for the restoration and conservation of relics, religious, and belief constructions should be promoted. Protecting, preserving, discovering, enriching the tangible and intangible values of nationally special relics like Tây Thiên - Tam Đảo, and honoring the identity of Vietnamese Buddhism and the Tây Thiên Mother Worship faith are priorities.

A transparent and clear cooperation mechanism between the state and private sectors must be established, clearly defining responsibilities and benefits in the development and preservation of cultural heritage, historical relics, architectural-artistic works, and natural scenic spots. Such mechanisms are essential to attract private investment for heritage conservation and development.

Financial support policies for developing distinctive agricultural products through banking credit channels, people’s credit funds, and other financial institutions should be enhanced. Simultaneously, capital mobilization should be expanded through investment partnerships,

profit-sharing with enterprises, cooperatives, and individuals within and outside the province. Joint-stock cooperatives should be organized and participated in to mobilize capital. Strengthening production, processing, and consumption linkages on the basis of shared capital contribution is recommended.

- Technology:

The implementation of digitization projects and applications based on the scientific documentation of Vĩnh Phúc's cultural heritage for the 2022-2030 period should be accelerated, including digitizing the provincial museum.

Programs for research and development of plant and livestock varieties suitable for local natural conditions should be promoted to enhance the quality of agricultural products. A digital tourism map of Vĩnh Phúc should be completed to facilitate easy destination lookup for tourism businesses and visitors. The province should promote the use of an electronic traceability system currently in operation to effectively manage raw material zones, quality control, and product origin tracking from raw materials to final products. Guidelines for digital transformation of craft villages should be developed, including designing digital transition activity packages and widely disseminating materials to craft villages and their stakeholders throughout the province.

7. Conclusion

The comprehensive solutions addressing Market development, Management capacity, Government mechanisms and policies, Labor resources, Local production capabilities and organization, Capital resources, and Technology will collectively contribute to the accelerated development of Vĩnh Phúc Province's distinctive and competitive products linked to tourism development in Vietnam.

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Authors contributions

Nguyen Quang Sang was responsible for drafting the Introduction and contributed to the Recommendations section. Vo Thi Van Khanh prepared the Literature Review. Ho Thi Hoa developed the Methodology. Nguyen Thi Thu Huong, Pham Thi Van Anh, and Do Thi Nang carried out the Analysis of Factors Influencing the Development of Distinctive Products in Vinh Phuc Linked to Tourism. Nguyen Thi Thu Huong further developed the Results section and the Conclusion. Pham Thi Van Anh and Nguyen Quang Sang contributed to the Recommendations. All authors read and approved the final manuscript. The order of authorship reflects the relative contributions of the researchers.

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

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References

- Amoako, G. K., Obuobisa-Darko, T., & Marfo, S. O. (2021). Stakeholder role in tourism sustainability: The case of Kwame Nkrumah Mausoleum and Centre for Art and Culture in Ghana. *International Hospitality Review*, 35(1), 52-67.
<https://doi.org/10.1108/IHR-09-2020-0057>
- Anom, I. P. T. (2020). Case study of Balinese tourism: Myth as cultural capital. *Revista de Ciencias Sociales*, 279, 1-12. [Online] Available:
<https://www.redalyc.org/journal/279/27964115012/html/>

- Brodowicz, M. (2024). *Economic factors that affect tourism*. Aithor. [Online] Available: <https://aithor.com/essay-examples/economic-factors-that-affect-tourism>
- Bùi, T. N. H. (2023). *Phát triển nguồn nhân lực hướng tới du lịch bền vững tại Việt Nam*. Tạp chí Công Thương. [Online] Available: <https://tapchicongthuong.vn/phan-trien-nguon-nhan-luc-huong-toi-du-lich-ben-vung-tai-viet-nam-105788.htm>
- Bunghez, C. L. (2021). The emerging trend of niche tourism: Impact analysis. *Journal of e-Business Studies*, 2021, 1-12. <https://doi.org/10.5171/2021.134710>
- Đào, T. Á. T., & Nguyễn, V. L. (2023). Phát triển sản phẩm du lịch đặc thù trở thành ngành kinh tế mũi nhọn. *Journal of Economic Development*, 127, 1-15. <https://doi.org/10.33301/JED.VI.1277>
- Đình, B. (2023). *Phát triển du lịch nông nghiệp bằng các sản phẩm đặc trưng*. Báo Văn Hóa. [Online] Available: <https://baovanhoa.vn/du-lich/phan-trien-du-lich-nong-nghiep-bang-cac-san-pham-dac-trung-62484.html>
- Đoàn, M. C. (2022). *Phát triển du lịch nông nghiệp gắn với Chương trình mục tiêu quốc gia xây dựng nông thôn mới theo hướng bền vững (phần 2)*. Vietnam National Administration of Tourism. <https://doi.org/10.33301/JED.VI.1376>
- Dtmconsulting. (2021). *Phân biệt đặc điểm của từng loại sản phẩm trên thị trường*. DTM Consulting. [Online] Available: <https://dtmconsulting.vn/phan-loai-san-pham/#:~:text=S%E1%BA%A3n%20ph%E1%BA%A9m%20%C4%91%E1%BA%B7c%20tr%C6%B0ng>
- Gonda, T. (2021). The role of local products in tourism. *European Countryside*, 13(1), 1-16. <https://doi.org/10.2478/euco-2021-0006>
- Hà, T. T. T. (2022). Bài học phát triển du lịch cộng đồng tại các địa phương. *TNU Journal of Science and Technology*, 227(14), 1-12. <https://doi.org/10.34238/tnu-jst.5490>
- Huizhan, W., & Xinru, L. (2025). A comparative study on the promoting effects of different tourism development models on rural revitalization: Case studies from two typical villages in China. *Sustainability*, 17(2), 714. <https://doi.org/10.3390/su17020714>
- Lê, V. M. (2022). *Các yếu tố ảnh hưởng đến phát triển du lịch bền vững trong bối cảnh phát triển*. Viện Nghiên cứu Phát triển Du lịch. [Online] Available: https://itdr.org.vn/nguyen_cuu/cac-yeu-to-anh-huong-den-phan-trien-du-lich-ben-vung-trong-boi-can-phat-trien
- Nguyễn, T. H. (2023). *Kinh nghiệm quốc tế về huy động vốn đầu tư phát triển du lịch và hàm ý đối với Nghệ An*. Tạp chí Tài Chính. [Online] Available: <https://tapchitaichinh.vn/kinh-nghiem-quoc-te-ve-huy-dong-von-dau-tu-phan-trien-du-lich-va-ham-y-doi-voi-nghe-an.html>

Nguyễn, T. T. H. (2025). *Giải pháp phát triển và quảng bá các sản phẩm đặc trưng có thể mạnh của tỉnh Vĩnh Phúc gắn với phát triển du lịch (26/ĐTKHVP/2023-2025)*. UBND Tỉnh Vĩnh Phúc. [Online] Available:

https://vinhphuc.gov.vn/ct/cms/congdan/chuongtrinhdtkh/Lists/BaoCao/View_Detail.aspx?ItemID=17

Thủ tướng Chính phủ Việt Nam. (2024). *Thủ tướng chỉ thị phát triển du lịch toàn diện, nhanh và bền vững*. Cổng Thông tin Chính phủ. [Online] Available:

<https://xaydungchinhsach.chinhphu.vn/toan-van-chi-thi-08-ct-ttg-ve-phat-trien-du-lich-toan-dien-nhanh-va-ben-vung-119240224073733538.htm>

Tiểu, T. (2024). *Thực trạng và giải pháp phát triển sản phẩm du lịch đặc trưng Cần Thơ. Kinh tế & Đô thị*. [Online] Available: <https://kinhtedothi.vn/thuc-trang-va-giai-phap-phat-trien-san-pham-du-lich-dac-trungcan-tho.html>

Trang, A. (2024). *Thúc đẩy đầu tư phát triển du lịch ở Việt Nam*. Nhân Dân. [Online] Available:

<https://nhandan.vn/thuc-day-dau-tu-phat-trien-du-lich-o-viet-nam-post839244.html>

Vũ, Đ. Đ. (2025). *Phát huy tiềm năng sản phẩm du lịch đặc thù*. Quân đội Nhân dân. [Online] Available: <https://www.qdnd.vn/du-lich/cac-van-de/phat-huy-tiem-nang-san-pham-du-lich-dac-thu-817942>

Vũ, L. H., & Nguyễn, T. T. (2024). *Phát triển du lịch về nguồn theo hướng đổi mới, sáng tạo*. Tạp chí Lý luận Chính trị. [Online] Available:

<https://lyluanchinhtri.vn/phat-trien-du-lich-ve-nguon-theo-huong-doi-moi-sang-tao-6146.html>

Vũ, T. H. (2024). *Ứng dụng khoa học công nghệ trong phát triển du lịch ở Việt Nam hiện nay*. Viện Nghiên cứu Phát triển Du lịch. [Online] Available:

https://itdr.org.vn/ngghien_cuu/ung-dung-khoa-hoc-cong-nghe-trong-phat-trien-du-lich-o-viet-nam-hien-nay/

Zeqiri, A., Ben Youssef, A., & Zahar, T. M. (2025). The role of digital tourism platforms in advancing sustainable development goals in the Industry 4.0 era. *Sustainability*, 17(8), 3482. <https://doi.org/10.3390/su17083482>