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DEVELOPING TRADITIONAL HANDICRAFT PRODUCTS IN QUANG BINH PROVINCE, VIETNAM, IN THE CONTEXT OF DIGITAL TRANSFORMATION

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Phan Van Hoa, Le Ngoc Quynh Anh, Marcellin Yovogan. DEVELOPING TRADITIONAL HANDICRAFT PRODUCTS IN QUANG BINH PROVINCE, VIETNAM, IN THE CONTEXT OF DIGITAL TRANSFORMATION

The traditional handicraft industry, known for its folk value and heritage, remains significant today. Quang Binh province has 29 recognized handicraft villages. However, recent challenges, including the COVID-19 pandemic and the Fourth Industrial Revolution, have impacted traditional handicrafts. Key issues are outdated, labor-intensive methods harmful to health and the environment, poor promotion, slow digital transformation, and decreasing orders, reducing competitiveness and market size. This article analyzes the current development status of traditional handicraft industries in Quang Binh and proposes solutions for preserving, promoting, and developing these industries in the context of digital transformation. It uses descriptive statistics and frequency analysis from secondary data (2018 – 2023) and surveys of 103 production facilities and 30 online traditional handicraft customers. The results show that the handicraft industry contributes to job creation and income increase but faces difficulties due to outdated technology and poor digital transformation. To encourage development, it is necessary to apply digital technology, digitize products, provide financial support, encourage investment, and create a supply chain from market research to

consumption. Implementing these solutions will help preserve and develop traditional handicrafts in Quang Binh, meeting production and consumption needs in the digital age.

Key words: traditional handicrafts, handicrafts, traditional handicraft development, handicraft development, digital transformation, Quang Binh, Vietnam.

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INTRODUCTION

Traditional handicraft products have a long history and are widely distributed across the world, including in Vietnam, where they are predominantly concentrated in rural areas (Zbuckea, 2022; Vu Nam, 2009). By the end of 2023, Vietnam had 211 traditional occupations and 2,031 recognized craft villages, creating jobs for approximately 3.7 million workers. Revenue from rural industry activities exceeded 202,000 billion VND, with an average income of 4-5 million VND per worker per year. Currently, the country has 11,056 OCOP (One Commune One Product) products rated 3 stars or higher, an increase of 2,189 products compared to 2022. The OCOP Program involves 5,724 entities, including 37.9% cooperatives, 24% businesses, 35.3% production facilities and business households, and the remainder being cooperative groups (Ministry of Agriculture and Rural Development of Vietnam, 2023). Vietnamese handicraft products are exported to 163 countries and territories globally. The export turnover of Vietnamese handicrafts grew at an average rate of 9.5% per year from 2015 to 2022, rising from 1.62 billion USD in 2015 to 2.23 billion USD in 2019 (Government of Vietnam, 2018), nearly reaching 3 billion USD in 2021 before declining to 2.4 billion USD in 2022 due to the impact of the pandemic and geopolitical developments (Nguyen Hanh, 2023). Vietnam's craft villages and traditional industries produce a vast array of traditional goods and handicrafts, including embroidery, weaving, rattan, bamboo, leaves, and sedge products; lacquerware and wooden furniture; ceramics and porcelain; items made from horns and shells; and metalwork in iron, copper, gold, silver, and precious stones (Tran Quoc Vuong & Do Thi Hao, 2014).

Quang Binh is a province with challenging weather conditions for agricultural development, yet it boasts a long tradition of producing and consuming traditional handicrafts. According to the Department of Agriculture and Rural Development, by 2023, there were 29 recognized craft villages and traditional craft villages, comprising 19 craft villages (65.5%) and 10 traditional craft villages (34.5%). The number of production and business facilities in these villages totaled 6,005, a decrease of 2,274 facilities compared to 2019 (People's Committee of Quang Binh Province, 2020). These included 12 cooperatives and 5,993 individual business households. The total workforce in the craft villages amounted

to 12,837 workers, predominantly regular workers. The production value of these villages in 2023 reached 192.67 billion VND (People's Committee of Quang Binh Province, 2023).

However, developing these products to meet the increasing needs of the population faces significant challenges. Despite early local government policies promoting rural industries, traditional industries, and craft villages, these sectors in Quang Binh province still encounter numerous shortcomings. These include fragmented production, small scale, limited capital, monotonous products, low quality, poor design, inadequate packaging, insufficient advertising, and slow adoption of digital technology. Consequently, consumption and efficiency are low, products do not meet contemporary social demands, and there are considerable competitive challenges, especially during the COVID-19 pandemic period (2020 – 2022) and in the current context of digital transformation (People's Committee of Quang Binh Province, 2020).

Therefore, research into developing traditional handicraft products in Quang Binh province within the context of digital transformation is necessary and timely. The ultimate objective of this research is the development of the traditional handicraft industry to enhance production and consumption, contribute strategically and sustainably to local economic development, and preserve national cultural identity. It seeks to meet the consumer needs of residents and the broader national market.

1. THEORETICAL FRAMEWORK AND LITERATURE REVIEW

Traditional handicraft products are widely produced and consumed around the world. However, conventional handicraft products still have no accurate, unified definition (*Yongzhong Yang et al.*, 2018). Various perspectives exist regarding what constitutes traditional handicraft products.

In 1997, during the International Conference on Crafts and International Markets in Manila, Philippines, sponsored by the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Trade Organization (ITC), Dianna McLeod provided a defining statement for “Traditional handicraft products.” According to McLeod, these products are crafted by artisans using predominantly manual labor, either entirely by hand or with the assistance of hand tools or mechanical means. The direct involvement of the artisan's manual labor is considered the pivotal aspect of production. Traditional handicrafts are typically unrestricted in quantity and utilize raw materials from sustainable resources. These products possess distinctive features that contribute to their uniqueness, encompassing utilitarian, aesthetic, artistic, creative, culturally embedded, decorative, functional, traditional, religious, social symbols, and meaning (UNESCO/International Trade Center (ITC), 1997).

Meanwhile, Rogerson believed that traditional handicraft products should be at least 80% handcrafted and may incorporate a diverse range of raw materials, including natural fibers, textiles, granulated clay, and recyclable materials (Rogerson, 2010).

Tran Quoc Vuong and Do Thi Hao asserted that traditional handicraft products in our country have a deep-rooted history, emerging alongside the nation's developmental journey spanning millions to tens of thousands of years ago. These crafts, serving various purposes in human social life, initially involved approximately twelve types of materials, such as stone, wood, bamboo, shells, and soil, primarily utilized for gathering and hunting needs (Tran Quoc Vuong, Do Thi Hao, 2014). According to Duong Ba Phuong, traditional handicrafts encompass non-agricultural occupations that predated the French colonial period and persist to the present day. These crafts may involve modern machinery to support production while adhering to traditional techniques, thus expressing Vietnam's unique cultural traits (Duong Ba Phuong, 2001).

Based on the concepts above, traditional handicraft products emerge as enduring, predominantly handcrafted items imbued with personal creativity, cultural significance, artistic value, and high aesthetics (Ni Luh Wayan Sayang Telagawathi, Ni Made Suci, Komang Krisna Heryanda, 2022).

In the contemporary landscape, amidst the burgeoning Fourth Industrial Revolution and the global transition towards digital economies, our country, alongside worldwide economies, underpins digital transformation as a strategic imperative (Gadre, Deoskar, 2020) (Rashiya Bekmurzaeva và G.S. Kovalev, 2023). The COVID-19 pandemic in 2020 – 2021 precipitated a paradigm shift towards digital transformation in production and business practices, compelling enterprises, including those in the handicrafts and traditional crafts sectors, to adapt to survive, evolve, and compete swiftly (Aarikka-Stenroos & Ritala, 2017).

The digital economy now permeates countless aspects of the world economy, impacting sectors as varied as banking, retail, energy, transportation, education, publishing, media or health. Information and Communication Technologies (ICTs) are transforming the ways social interactions and personal relationships are conducted, with fixed, mobile and broadcast networks converging, and devices and objects increasingly connected to form the Internet of Things (OECD, 2015, p. 11).

Digital transformation is fueled by a diverse array of cutting-edge technologies that have revolutionized the way organizations operate, interact with customers, and create value (Allioui and Mourdi, 2023) (Henry, Chukwuekem, 2024). Digital transformation signifies the progressive evolution of computerization, catalyzed by groundbreaking technological advancements, particularly in digital technology. It entails comprehensive changes in individual and organizational lifestyles, work dynamics, and production methodologies, leveraging

digital technologies (Sascha Kraus et al., 2021) (Vietnam Ministry of Information and Communications, 2021).

This transformation enhances productivity, reduces costs, and unlocks new developmental horizons, augmenting traditional values with novel opportunities (Ni Luh W. S. T., Ni Made S. and Komang, 2022). Through the reevaluation of business strategies, reassessment of value chains, reconnection with customers, and restructuring of operations, digitally transforming businesses can thrive (Mohsin SHAFI et al., 2022; Nguyen Thi Thu Huong, Nguyen Van Dung, 2021). For small and medium-sized enterprises, digital transformation presents new-found avenues for growth, facilitating participation in e-commerce platforms and digital marketplaces and enabling swift, economical, and effective adaptation through platform utilization (Nguyen Thi Thu Huong, Nguyen Van Dung, 2021).

From the developmental perspective, growth and improvement occur across all areas. In any field, development encompasses an increase in both quality and quantity, changes in structure, institutions, types, and organizations, market shifts (Fajardo, 1999), and the maintenance of social justice, security, and order (Phan Van Hoa, Nhieu Khanh Phuoc Hai, 2021). Developing traditional handicraft products is no exception to this perspective.

Within the framework of this research, the development of traditional handicraft products in the context of digital transformation includes several key aspects:

Firstly, quantitative development involves an increase in the number of production facilities and types of production organizations, along with a rise in input factors applying digital technology to serve production, such as machinery, equipment, and production technology. Furthermore, due to the application of digital technology in production, distribution, and consumption, the number of product types, designs, sizes, and traditional handicrafts expands. This development extends geographically over time, encompassing local, regional, and geographical spaces.

Secondly, qualitative development enhances product quality, driven by scientific and technological advances and modern machinery and equipment. Additionally, the involvement of artisans and skilled workers, leveraging digital technology for designing and creating product designs, contributes significantly to quality improvement. This aspect also emphasizes the importance of improving and protecting the production environment, community ecological environment, and local society.

Thirdly, alongside the increase in quantity and quality, the production development process involves a positive shift in the structure of production factors and consumed products towards savings, progress, rationality, and efficiency. This shift is facilitated by applying digital technology through scientific and technological advances and modern machinery and equipment, replacing outdated tech-

nology and machinery that pollute the environment. Applying digital transformation to management also moves towards large-scale, reputable, branded, effective, and highly competitive production management forms in the global market.

Lastly, production development is needed in addition to increasing quantity, quality, and structural transformation.

2. METHODOLOGY AND DATA COLLECTION

The secondary data were collected from agencies and departments in Quang Binh province. The primary data were collected by surveying 103 traditional handicraft production facilities in the province. According to statistical results from the Provincial Department of Agriculture and Rural Development and Decree 52/2018/ND-CP on rural industry development and rural industry activities (Government of Vietnam, 2018), by 2023, the province was expected to have 29 recognized craft villages and traditional craft villages, with the number of production and business facilities in these villages totaling 6,005 (Quang Binh Provincial People's Committee, 2023).

Through field surveys, we selected 5 traditional occupations in 5 localities, with a total number of production facilities reaching 1,446. These are traditional craft villages with many concentrated production facilities that meet the requirements for surveying and collecting primary data. Applying the formula proposed by Slovin (1960) with a 10% margin of error, the number of survey samples should be higher than 94. However, the survey sample was balanced and structured among 103 facilities to ensure accuracy and redundancy. For direct consumer customers, as per the introduction provided by production facilities, 5 occupations each chose to introduce 6 customers who regularly purchase online from the facility. The total number of customers surveyed amounted to 30, who consume products from traditional crafts and traditional craft villages. Using the random sampling method, the research team selected samples according to the ratio provided and the list from the locality. Implementing the direct interview survey method with a pre-developed questionnaire, the research team conducted interviews to collect data and conduct field research at the facilities under investigation.

The research's analysis methods predominantly included descriptive statistics, disaggregation, comparison, economic accounting, and frequency analysis.

To evaluate the content of traditional handicraft product development in digital transformation, the indicators primarily focused on assessing the increase in quantity, quality, and fundamental structural shifts. These indicators were structured in absolute and relative terms, encompassing measurements of quantity and value increase, growth rates, development of production facilities, input factors and results, and output efficiency.

3. RESULTS AND DISCUSSION

3.1. STATUS OF TRADITIONAL CRAFT INDUSTRIES AND VILLAGES' RECOGNITION

Implementing Decree 66/2006/ND-CP of the Government and Circular 116/2006/TT-BNN of the Minister of Agriculture and Rural Development on rural industry development, the People's Committee of Quang Binh province has deliberated and issued decisions to recognize professions, craft villages, and traditional craft villages in the province. Specifically, in 2008, the Provincial People's Committee recognized 15 craft villages and traditional craft villages (comprising 10 craft villages and 5 traditional craft villages). In 2010, the Provincial People's Committee recognized 9 craft villages and traditional craft villages (including 4 craft villages and 5 traditional craft villages). By 2015, 5 more craft villages were recognized. The Provincial People's Committee has acknowledged 29 craft villages and traditional craft villages (comprising 19 craft villages and 10 traditional craft villages).

The recognized traditional craft and craft village products encompass broom products (Le Binh village, Le Thuy district; residential group 5, Ba Don town), sedge mats, and wickerwork (An Xa village, Xuan Bo, Le Thuy district; Dien Truong village, Ba Don town), conical hats (Ba De village, Cao Lao Ha, My Trach, Bo Trach district; Van Loi village, La Ha, Ha Thon, Tho Ngoa, Tho Don town, Ba Don commune; Ha Tien village, Quang Trach district; Quy Hau village, Le Thuy district), seafood and fish sauce processing (Quy Duc village, Ly Nhan Nam, Bo Trach district; Xuan Hoa village, Quang Trach district), vermicelli (Tan An village, Quang Trach district), sweet potatoes (Tan Dinh village, Quang Ninh district), wine (Gia Hung village, Van Loc, Bo Trach district; Tuy Loc village, Le Thuy district; Vo Xa village, Bo Trach district Quang Ninh), fine art carpentry (Nhan Hoa village, Ba Don town), incense (Quyet Thang village, Bo Trach district), salt (Phu Loc village, Quang Trach district), and forging and casting products (Mai Hong village, Bo Trach district). All of these products are handmade items belonging to traditional local crafts.

Regarding product diversity, the forging and casting product group in Mai Hong village is notably rich and varied, primarily consisting of tools and implements such as hoes, shovels, saws, machetes, sickles, plowshares, and harrows (for agricultural production), as well as fishing gear like sinkers and hooks (for fishing purposes). Additionally, their diversity and distinctiveness characterize numerous types of wicker and handicraft products. However, other products, such as brooms, sedge mats, conical hats, wine, and lucky juice, exhibit less variety and tend to be more uniform.

Some handicraft villages are operating well, attracting a considerable workforce, and producing competitive products that meet market demands. Examples

include An Xa sedge mats, conical hats from various villages, fish sauce from Quy Duc and Xuan Hoa, wine from Gia Hung, vermicelli and cakes from Tan An, sweet potatoes from Tan Dinh, incense from Quyet Thang, salt from Phu Loc, and forging from Mai Hong. However, certain craft village products, such as wickerwork from Xuan Bo and wine from Van Loc, are operating moderately and face the risk of disappearing.

3.2. THE DEVELOPMENT SITUATION OF TRADITIONAL HANDICRAFT PRODUCTION FACILITIES

In 2023, facilities in 29 traditional handicraft villages within Quang Binh province totaled 6,005, employing 12,837 workers and contributing to a production value of 192.7 billion VND. Among the 19 handicraft villages, conical hat making exhibited the highest prevalence, with 6 villages, followed by brooms, sedge mats, seafood processing, and fish sauce making, each comprising 3 villages. Additionally, bamboo and rattan weaving, vermicelli, cakes, and sweet potatoes were represented by 2 villages, while wine-making, incense, forging and casting, and salt-making each had 1 village. Among the 10 traditional handicraft villages, conical hat-making again emerged as predominant with 4 traditional handicraft villages, succeeded by wine-making with 3 traditional handicraft villages. Rattan and bamboo weaving products, forging, casting, and salt making each had a traditional handicraft village. Consequently, conical hat-making and wine-making accounted for the highest number of facilities in Quang Binh province, with conical hat-making facilities reaching 2,800 (46.6% of the total), employing over 7,157 workers (55.8% of the total) and generating an annual production value of 117.7 billion VND (61.1% of the total production value of handicraft villages and traditional handicraft villages). Noteworthy conical hat handicraft villages include Ha Thon (coconut leaf and green conical hats), Quy Hau, and Ba De. Conical hat-making entails relatively low labor quantity and quality, making it feasible during leisure time, thereby rendering it a high-value profession for both facilities and society. Consequently, localities should prioritize supporting the stabilization and development of this profession.

Wine-making, the second-largest product, has 4 handicraft villages with 1,061 facilities, employing 1,300 workers and producing goods valued at approximately 9.9 billion VND annually. Tuy Loc and Van Loc are typical examples of wine-making villages in Quang Binh. In addition to conical hats and wine, seafood processing, fish sauce, broom, sedge mat, and bamboo weaving are significant in many active handicraft villages. Despite efforts by the local government to encourage and support facilities in preserving cultural identities and attracting labor for economic development, market challenges have affected many facilities. Competition has led to job losses, prompting some to seek alter-

native livelihoods, reflecting the current reality in many handicraft villages and traditional villages in Quang Binh province (Table 1).

Table 1. Situation of handicraft villages, number of facilities and labor in Quang Binh province in 2023

No.		No. of handicraft villages	No. of facilities	No. of laborers	Production value (Million VND)
	Total	29	6,005	12,837	192,668
I	Handicraft village product group	19	2,163	5,894	95,474
1.1	Conical hat	6	843	2,707	45,819
1.2	Rattan	2	41	125	13,320
1.3	Brooms, sedge mats	3	66	172	3,650
1.4	Vermicelli, traditional cake, dried sweet potato	2	434	1,230	13,100
1.5	Processing seafood and fish sauce	3	351	605	8,325
1.6	Wine	1	120	130	2,100
1.7	Incense	1	300	900	9,000
1.8	Forging, casting	1	8	25	160
II	Traditional handicraft village product group	10	3,842	6,943	97,194
2.1	Conical hat	4	1,957	4,450	71,856
2.2	Rattan	1	523	523	3,138
2.3	Wine	3	941	1,170	7,800
2.4	Forging, casting	1	149	180	8,900
2.5	Salt	1	272	620	5,500

Source: Department of Agriculture and Rural Development of Quang Binh province.

3.3. DEVELOPMENT SITUATION OF SOME SPECIFIC TRADITIONAL HANDICRAFT PRODUCTS

To gain deeper insights into specific types of traditional handicraft products in the province, our research examined selected handicraft villages and traditional handicraft villages in the region. From the 29 recognized handicraft villages and traditional handicraft villages, we singled out 9 locations for closer analysis, comprising 7 handicraft villages and 2 traditional handicraft villages.

The data presented in Table 2, which pertains to 7 handicraft villages and 2 specific traditional handicraft villages chosen for analysis, reveals that despite the challenges posed by the COVID-19 pandemic between 2019 and 2021, including lockdowns, disruptions in supply chains and production halts in various manu-

facturing sectors, there has been an upward trend in both product production and consumption over the years.

In the case of traditional conical hat products from Ba De, Cao Lao Ha, and My Trach villages, production has been notable over the years. Between 2018 and 2022, the production of conical hats surged from 837 thousand pieces to 880 thousand pieces, marking a rise of 43 thousand pieces or 5.14%. Notably, in 2022, Ba De village witnessed a 1.75% increase compared to the preceding year. This positive outcome can be attributed to the proactive measures taken by local authorities in these villages to incentivize production, especially amid the challenges of the COVID-19 pandemic. With lockdowns and social distancing measures, the surplus leisure time available to people has been effectively utilized, resulting in increased conical hat production. This initiative not only creates employment opportunities and boosts income for the local populace but also contributes to economic stability by ensuring job retention.

Similarly, in Quy Duc and Ly Nhan Nam fish sauce villages, tens of thousands of liters of fish sauce are supplied to the market annually. Between 2018 and 2022, the output of fish sauce from these two villages witnessed a significant uptick, rising from 36 thousand liters to 38 thousand liters, representing an increase of 2 thousand liters or 5.56%. This increase in production not only meets the demand of the local market but also generates employment opportunities, enhances income levels, and contributes to the overall livelihood stability of the residents.

Table 2. Development situation of some traditional handicraft products in Quang Binh province in the period 2018 – 2022

No.	Product	Village	Unit	2018	2021	2022	Comparison (%)	
							2021/ 2018	2022/ 2021
I		Craft village						
1	Conical hat	Ba De	Thousands of pieces	390	400	407	2.6	1.75
2	Conical hat	Cao Lao Ha	Thousands of pieces	67	73	73	9.0	0.00
3	Conical hat	My Trach	Thousands of pieces	380	395	400	3.9	1.27
4	Fish sauce	Quy Duc	Thousand liters	26	26	27	0.0	3.85
5	Fish sauce	Ly Nhan Nam	Thousand liters	10	10.6	11	6.0	3.77
6	Wine	Gia Hung	Thousand liters	37	38	38.5	2.7	1.32
7	Incense	Quyet Thang	Ton	250	255	260	2.0	1.96
II		Traditional village						
1	Forging, casting	Mai Hong	Thousands of products	60	62	63	3.3	1.61
2	Wine	Van Loc	Thousand liters	8	8.5	8.5	6.3	0.00

Source: Department of Agriculture and Rural Development of Quang Binh province.

Regarding wine products, Van Loc traditional wine village, while its annual production volume is not substantial, reaching only 8.5 thousand liters in 2022, holds provincial recognition as an OCOP product (One Commune One Product). This designation has facilitated its promotion and commendable sales performance in the current market landscape. Conversely, Gia Hung Wine Village consistently supplies between 37 to 38.5 thousand liters to the market annually, primarily catering to local and neighboring areas. The local administration is engaged in brand-building initiatives to fortify its future development prospects.

The craft of incense making in Quyet Thang village attracts numerous establishments due to its distinctive and favored products, yielding an annual output of 260 tons by 2022. This significant production output distinguishes it from other incense-making villages in the province. Consequently, the local agenda prioritizes brand enhancement and targeted supply to the domestic market, particularly in major urban centers like Hanoi, Ho Chi Minh City, and Da Nang.

Mai Hong Forging and Casting Traditional Craft Village experienced declining production facilities and output following the Formosa marine environmental pollution incident 2016. The village produces and supplies only 63 thousand products annually (e.g., in 2022), primarily lead products, hooks, nails, etc., to fishing vessels engaged in aquatic product exploitation in the province. Other product categories, such as agricultural tools, have witnessed a significant reduction in output, with many establishments ceasing production due to competitiveness and the physically demanding nature of the profession, which requires robust health and resilience against toxic fumes emitted from coal, lead, iron, etc. This predicament has prompted several establishments to downsize operations, cease production, or transition to alternative occupations to address labor challenges and achieve higher income prospects.

In summary, the development of traditional handicraft industries in Quang Binh province has been relatively modest compared to neighboring localities like Thua Thien Hue and Quang Nam regarding industry diversity, establishment scale, production output, and product diversity. Nonetheless, the province's traditional handicraft sector contributes significantly to local employment, generating thousands of jobs annually and meeting the demand for traditional products locally and nationwide.

3.4. PRODUCTION AND BUSINESS EFFICIENCY OF SOME SPECIFIC TRADITIONAL HANDICRAFT PRODUCTS

The revenue generated from producing various traditional handicrafts experienced a notable increase from 2018 to 2022. Whereas the revenue stood at 37.8 billion VND in 2018, it surged to 39.28 billion VND by 2022, marking a 1.1% increase. Notably, the traditional craft village of Mai Hong, specializing in forg-

ing and casting, boasted the highest revenue in 2022, totaling 9.55 billion VND, closely followed by the incense-making village of Quyet Thang, which recorded revenue of 8.55 billion VND. Conversely, the revenue from wine production in Van Loc traditional handicraft village was comparatively lower, amounting to only 850 million VND in 2022 (Table 3).

Table 3. Production revenue situation of some traditional handicraft products in Quang Binh province in the period 2018 – 2022 (Billion VND)

TT	Product	Village	2018	2021	2022	Comparison (%)	
						2021/2018	2022/2021
	Total		37.8	38.86	39.28	2.8	1.1
I	Revenue of handicraft villages		27.8	28.61	28.88	2.9	0.9
1	Conical hat	Ba De	5.9	6.05	6.1	2.5	0.8
2	Fish sauce	Quy Duc	2.1	2.15	2.18	2.4	1.4
3	Wine	Gia Hung	3.7	3.8	3.85	2.7	1.3
4	Conical hat	Cao Lao Ha	1.0	1.1	1.1	10.0	0.0
5	Fish sauce	Ly Nhan Nam	1.0	1.06	1.1	6.0	3.8
6	Conical hat	My Trach	5.8	5.95	6.0	2.6	0.8
7	Incense	Quyet Thang	8.3	8.5	8.55	2.4	0.6
II	Revenue of traditional handicraft villages		10.0	10.25	10.4	2.5	1.5
1	Forging, casting	Mai Hong	9.2	9.4	9.55	2.2	1.6
2	Wine	Van Loc	0.8	0.85	0.85	6.2	0.0

Source: Department of Agriculture and Rural Development of Quang Binh province.

To attain more tremendous success in the future, the province should enact targeted measures and initiatives to foster the development of craft villages, traditional craft villages, and traditional handicraft industries, aligning with the objectives of the new rural village construction program for the 2022 – 2025 period. This entails implementing strategies to expand and enhance product consumption markets, fortify brand establishment and promotion, progressively broaden market access, and support production development. Through these endeavors, it is anticipated that the local traditional handicraft industry will undergo restoration and thrive in the foreseeable future.

3.5. RESULTS AND EFFICIENCY OF THE SURVEYED FACILITIES

To ascertain the status of production and business development among facilities, the research team conducted investigations on 103 facilities, structured as follows: 10 facilities involved in forging and casting in Mai Hong village (con-

stituting 9.7%), 5 wine-making facilities in Van Loc village (representing 4.9%), 55 facilities dedicated to conical hat making in Ba De village (making up 53.4%), 5 facilities engaged in fish sauce making in Quy Duc village (comprising 4.9%), and 28 facilities focused on incense making in Quyet Thang village (accounting for 27.1%) (Table 4).

Table 4. Average production results of surveyed traditional craft facilities

TT	Career	Gross Output (GO) (Million VND)	Cost (Million VND)	Income (Million VND)
1	Mai Hong Forging, casting	274.9	237.2	37.7
2	Van Loc wine	87.5	48.6	38.9
3	Ba De Conical hat	38.2	14.3	23.9
4	Quy Duc fish sauce	85.9	45.6	40.3
5	Quyet Thang incense	228.0	194.1	33.9
Average		80.2	52.2	28.0

Source: Survey data.

Among the 103 facilities surveyed, 12 men and 91 women were interviewed. Notably, in product occupations such as making fish sauce, conical hats, and incense, all participants were female, while in forging and casting, only male participants were surveyed. In the wine-making, 2 males and 3 females participated in the survey. This pattern underscores the significant role of women in specific traditional handicraft industries, where they serve as the primary workers, holding valuable knowledge and industry expertise and driving production in these sectors. The average age of interviewees was 48.5 years old, with an average educational level of grades 6 and 7 (average 6.9). On average, each facility had 4 people and 2.4 laborers.

The production and business outcomes and efficiency are pivotal aspects of craft establishment activities, representing the labor outcomes generated by family members throughout the year. The average production value (GO) from traditional handicraft activities stood at 80.2 million VND per facility. Notably, facilities engaged in forging, casting, and incense making achieved the highest levels, with respective averages of 274.9 million VND per facility and 228 million VND per facility. However, the averages for other occupations were relatively lower, ranging from 85.9 to 87.5 million VND per facility for wine and fish sauce-making occupations. The production value for conical hat-making was notably lower, at 38.2 million VND per facility. This indicates significant variations in GO across different vocational establishments.

Table 5. Average Production efficiency of surveyed traditional craft facilities

No.	Type	Production value/Cost	Income/Cost
1	Mai Hong Forging, casting	1.16	0.16
2	Van Loc wine	1.80	0.80
3	Ba De Conical hat	2.67	1.67
4	Quy Duc fish sauce	1.88	0.88
5	Quyet Thang incense	1.17	0.17
Average		1.54	0.54

Source: Survey data.

Regarding income, most facilities in the province currently operate without paying taxes or participating in asset depreciation in production. However, due to challenges in input and output markets, the income of facilities in 2022 was not notably high. The data revealed that the average income of a facility was 28 million VND. Many facilities reported scaling back production due to the poor consumption market following the COVID-19 pandemic in 2021 and 2022. Consequently, after deducting costs, the average net income per facility was only 28 million VND. Excluding family labor costs, facilities may incur losses, leading many to halt production or reduce scale until market conditions improve. The occupations with the highest income were fish sauce making, wine-making, and blacksmithing, with average incomes of 40.3 million VND per facility, 38.9 million VND per facility, and 37.7 million VND per facility, respectively. In contrast, the conical hat-making exhibited a lower average income of 23.9 million VND per facility.

In terms of economic efficiency, Table 5 illustrates that, on average, each VND of cost generates 1.54 VND of production value and 0.54 VND of income. Notably, conical hat-making exhibits the highest efficiency ratio at 2.67 times, followed by fish sauce-making at 1.88 times and wine-making at 1.8 times. Conversely, forging, casting, and incense-making demonstrate lower efficiency ratios, reaching only 1.16 times and 1.17 times, respectively. This underscores that the production activities of the surveyed traditional handicrafts remain predominantly manual. Consequently, the value of labor is high, while productivity is low, technology remains outdated, and the level of investment capital is insufficient, leading to numerous challenges in the survival and development of traditional handicraft industries.

Overall, traditional handicrafts' results and production efficiency vary considerably and are not uniformly high. Ineffective exploitation and utilization of input factors contribute to low production capacity and profitability of capital per worker and per unit cost. Nonetheless, it is undeniable that in recent years, all five surveyed professions have provided families with additional income, offering a

more stable alternative to income from agricultural activities and significantly transforming the rural landscape by supplying products to meet societal demands.

Examining the five traditional handicraft industries surveyed in the province reveals a minimal adoption of science and technology, particularly digital transformation. Nearly all surveyed traditional handicraft establishments do not utilize digital technology or transformation in product design, preparation, or organization. Only a minority of establishments employ digital technology for tasks such as raw material procurement, product promotion, order placement via text or call, shipment tracking, and electronic payments on select e-commerce platforms, albeit to a limited extent.

3.6. EVALUATION OF PARTICIPANTS ON THE DEVELOPMENT OF TRADITIONAL HANDICRAFT PRODUCTS IN QUANG BINH PROVINCE

To assess consumption patterns and customer satisfaction regarding traditional handicraft products in Quang Binh province, a random survey was conducted among 30 customers of handicraft facilities (Table 6).

Evaluating the products and quality of traditional handicraft products in Quang Binh province, some observations have an average value greater than 4.0, such as: “Products are mainly handmade” (4.13), “The product is made from natural, environmentally friendly materials” (4.20), “The product is of high quality” (4.23), “Sales location creates convenience for consumers” (4.03), “The seller is friendly” (4.23). These are also 5 observations with relatively high ratings of “Agree” (level 4) and “Strongly agree” (level 5), with low ratings of “Disagree” (level 2) (3, 3%) and no customer-rated level 1, “Strongly disagree.”

The assessment levels “Strongly disagree” (level 1) and “Disagree” (level 2) were assigned to the following observations: “Products are very diverse” (10%), “The seller provides good packaging support” (13.3%), “Products are promoted and advertised on social networks (Facebook, Zalo, Messenger)” (26.6%), “Product information is easily accessible” (16.6%), “Ordering online is easy” (13.3%), “Product is shipped quickly” (13.3%), and “Goods arrived fully packaged and clean” (13.3%). This indicates that traditional handicraft products still have limited variety in terms of types and sizes, and the packaging, especially for transportation, is not very practical or convenient, particularly for items like wine, conical hats, and incense.

The application of digital technology and digital transformation for communication, promotion, consumption, and payment in traditional handicraft production and business establishments is relatively limited, leading to dissatisfaction among surveyed customers. This indicates a lack of systematic and comprehensive promotion of conventional handicraft products in the region, primarily catering to local consumption with limited awareness beyond the immediate vicinity.

Table 6. Customer assessment of traditional handicraft products in Quang Binh province

No.		Assessment level (%)					Average	Std. Error
		1	2	3	4	5		
I	Products and product quality							
1	Products are very diverse	0.0	10.0	30.0	56.7	3.3	3.53	0.730
2	Products are always fresh	0.0	0.0	23.3	70.0	6.7	3.83	0.531
3	Products are mainly handmade	0.0	3.3	20.0	36.7	40.0	4.13	0.860
4	The product is made from natural, environmentally friendly materials	0.0	0.0	23.3	33.3	43.3	4.20	0.805
5	The product is of high-quality	0.0	3.3	20.0	26.7	50.0	4.23	0.898
II	Price							
6	Price is low, suitable for affordability	0.0	0.0	20.0	63.3	16.7	3.97	0.615
7	Product price is reasonable	0.0	0.0	26.7	53.3	20.0	3.93	0.691
8	The price is suitable for product quality	0.0	3.3	13.3	66.7	16.7	3.97	0.669
III	Distribution and service							
9	Sales location creates convenience for consumers	0.0	0.0	16.7	63.3	20.0	4.03	0.615
10	The seller is friendly	0.0	0.0	6.7	63.3	30.0	4.23	0.568
11	The seller is professional	0.0	0.0	13.3	76.7	10.0	3.97	0.490
12	The seller provides good packaging support	0.0	13.3	10.0	56.7	20.0	3.83	0.913
IV	Applying digital transformation							
13	Products are promoted and advertised on social networks (Facebook, Zalo, messenger)	3.3	23.3	13.3	26.7	33.3	3.63	1.273
14	Product information is easily accessible	3.3	13.3	20.0	53.3	10.0	3.53	0.973
15	Ordering online is easy	0.0	13.3	13.3	56.7	16.7	3.77	0.898
16	Product is shipped quickly	0.0	13.3	13.3	66.7	6.7	3.67	0.802
17	Products are delivered in sufficient quantity	0.0	3.3	20.0	63.3	13.3	3.87	0.681
18	Products delivered are of good quality	0.0	3.3	20.0	70.0	6.7	3.80	0.610
19	The product is delivered undamaged	3.3	10.0	3.3	63.3	20.0	3.87	0.973
20	Online payment is convenient	0.0	0.0	26.7	53.3	20.0	3.93	0.691
V	Overall assessment							
21	An overall evaluation of purchasing traditional handicraft products in Quang Binh province through digital transformation	0.0	0.0	36.7	60.0	3.3	3.67	0.547

Source: Survey data.

Notes: Level 1: Completely disagree; Level 2: Disagree; Level 3: Normal; Level 4: Agree; Level 5: Completely agree.

This presents a significant constraint under current circumstances, necessitating a shift in production facilities towards embracing new technologies for product promotion and advertising to broaden consumption. Therefore, there is a pressing need to enhance local traditional handicraft products, encompassing product variety, pricing strategies, and service quality, while also embarking on digital transformation initiatives to unlock numerous benefits for local communities, customers, and production and business establishments in the foreseeable future.

3.7. GENERAL ASSESSMENT OF THE DEVELOPMENT OF TRADITIONAL HANDICRAFT PRODUCTS IN QUANG BINH PROVINCE

Currently, in the province, there are 29 recognized handicraft villages and traditional handicraft villages, including 10 traditional handicraft villages and 19 handicraft villages. The Provincial People's Committee mainly recognized handicraft and traditional handicraft villages in 2008, 2010, and 2015. Although compared to many other localities such as Thua Thien Hue province and Quang Tri province, there are not many, this is a good sign of the province to restore and promote traditional handicraft villages, contributing to creating diverse products to serve local needs, creating jobs, increasing income, and economic development. By 2023, the number of production and business facilities in handicraft villages and traditional handicraft villages reached 6,005, with a total number of employees in handicraft villages of 12,837 workers (mainly regular workers). The value of production in 2023 reached 192.7 billion VND. In the coming time, the province should focus on the group of recognized craft villages and several craft villages with products participating in the OCOP program "One commune, one product" to build models and promote production development. The province pays attention to implementing environmental protection in handicraft villages every year. Activities to support vocational training, vocational transmission, skill improvement, and vocational development in the direction of self-training and vocational training (conical hat making, mechanics, seafood processing) are underway. Experts are invited to provide vocational training, improve skills, and develop new occupations. The focus is on supporting the development of labor-intensive occupations, linking vocational training and vocational transmission with job creation at the grassroots level to increase training effectiveness.

The preservation of long-standing traditional craft villages at risk of being lost is implemented through policies supporting agricultural production and capital from the national target program on construction. Support has been organized to improve production lines and promote trade within and outside the province; additionally, through industrial and agricultural promotion programs, science and technology, vocational training for rural and new rural workers invested in build-

ing craft village infrastructure, applying advanced technology, modern machinery, and equipment in production, and environmental pollution treatment at production facilities in residential areas. However, there are also some problems: the preservation and development of traditional handicrafts are slow and small-scale. Mobilizing capital sources for production and business development mainly relies on the equity capital of production establishments and households. The application of science and technology, especially digital transformation, in production, business, and product consumption is minimal. Some industry groups still face difficulties in their slow and unsustainable development. Some traditional occupations are in danger of disappearing. The main reason is that the capital investment in infrastructure serving the development of rural industries is still tiny and cannot meet development requirements. Raw material areas are shrinking due to urbanization, industrialization, and the conversion of crops and livestock. Most industry establishments are small-scale and produce spontaneously, making capital mobilization tricky. Traditional handicraft products in Quang Binh today still maintain a very manual and traditional production style, resulting in monotonous types, lack of diversity, low aesthetics, and low quality. Additionally, they face fierce competition from industrial and similar products in other localities, such as wine, fish sauce, and conical hats. Previously, manual production jobs required a lot of labor, especially for highly skilled workers who could endure hardships such as blacksmithing and casting, resulting in the gradual loss of traditional character and the decrease and disappearance of products.

4. RECOMMENDATIONS FOR DEVELOPING TRADITIONAL HANDICRAFT PRODUCTS IN QUANG BINH PROVINCE

In light of digital transformation, our analysis suggests the following solutions for advancing traditional handicraft products in Quang Binh province:

4.1. GENERAL RECOMMENDATIONS

The development of traditional handicrafts must be associated with the province's socio-economic development planning, including creating a list of craft villages and trades prioritized for conservation and development support. This involves planning land allocation for manufacturing establishments in handicraft zones and clusters, creating favorable conditions for long-term leasing of premises to stabilize production and protect the environment.

Applying and developing science and technology in production, business, distribution, and consumption activities, mainly digital technology, involves digitizing products on the Internet and social networking sites. It also entails firmly

applying digital transformation in marketing, product promotion, online ordering, and sales.

Implementing trade promotion activities and exploring product consumption markets involves researching and selecting typical traditional handicraft products to build a brand. This includes organizing participation in traditional handicraft fairs for production facilities to propagate and promote products to domestic and foreign markets.

Continuing to implement preferential policies on capital and credit for traditional handicraft establishments involves targeting medium- and long-term capital sources to invest in technological innovation, research, and new products. This includes simplifying loan procedures to enhance establishments' access to preferential capital sources.

Effectively implementing vocational training projects for rural workers involves prioritizing skill training in craft villages and traditional craft establishments. It also includes calling and encouraging businesses to participate in training and supporting job creation for traditional handicraft workers. Additionally, a policy should attract talented artisans and workers to participate in training programs.

4.2. SPECIFIC RECOMMENDATIONS

Solutions for applying digital technology to marketing and developing product consumption markets. Currently, for traditional handicraft products in Quang Binh province, difficulties in the consumer market are the most significant difficulties that production and business establishments face. Therefore, the basic immediate and long-term solution is for establishments to develop a marketing strategy for the consumer market, especially by applying digital technology and digital transformation. In the immediate future, the locality will support inviting technology experts and marketing experts to coordinate production facilities to digitize craft village brands, product brands, types, designs, sizes, images, and even specifications, production process, orders, e-commerce contracts register and participate in promotion, advertising, and online sales on social networking sites such as Facebook, Zalo, Twitter, LinkedIn; on official traditional handicraft electronic trading floors of localities, where there is a lot of consumption potential; on online sales websites such as Lazada, Shopee, Sendo, Tiki, so that establishments, units and individuals consuming and transporting can place orders, contracts, joint ventures, online links to develop the market, increase production and consumption, improve production and business results and efficiency.

Investment solutions, equipping modern machinery and equipment in product production. Some industries have a production process divided into many stages, such as forging, making wine, and fish sauce, so invest in modern machin-

ery and equipment to develop production to increase productivity and improve product quality, products, gradually improving and protecting the ecological environment. Diversifying ownership forms and types of production and business organizations in craft villages and traditional handicraft industries is an urgent requirement by the laws of market development in the context of digital transformation such as Currently. Promote the building of collective and individual brands by registering trademarks and product quality; Strengthen marketing trade promotion and increase sales support activities (advertising, exhibitions, product introductions, etc.) through fairs, the internet, and introduction centers products. Providing goods and products to supermarkets, restaurants, and mobile sales points; Forming stores and sales points to introduce products in town, town, and city centers; Developing tourist attractions and building craft village tours to create local product consumption markets.

Strengthen linkage and joint venture measures between production facilities and businesses, input suppliers, businesses, and consumer units, forming a chain of links and supply of products from research. Market research, product design, raw material supply, production, distribution, and consumption. Create favorable conditions to encourage businesses to invest in attracting artisans, fine artists, and product designers, and train and foster skilled artisans to participate in the production chain and product consumption. Only businesses are qualified to make good use of artisans, invest in advanced machinery and equipment, apply digital transformation, build and develop brands, increase promotion and advertising, and participate in trade fairs, exhibitions, associations, and consumption promotion in domestic and foreign markets. In addition, local authorities need to make more efforts and effectively implement policies to support the development of traditional handicrafts, such as capital, credit, land, and infrastructure policies, infrastructure, taxes, science and technology, and environmental protection.

It is necessary to plan and preserve handicraft villages and products that are disappearing; research to introduce a number of new occupations and products; train workers and develop them into main occupations in order to take advantage of idle labor and available local materials, create jobs, and develop the economy.

CONCLUSION

Developing traditional handicraft products is extremely important in preserving and developing craft villages and traditional handicraft industries, creating jobs, increasing income, creating products for society, and developing the local economy. Recently, 29 handicraft and traditional craft villages have been recognized in the province for creating many colorful handmade products in the locality. Some traditional handicrafts were initially just side jobs but have reached

such a level of skill that they have become arts, with workers becoming artisans who have created highly aesthetic works of art that contribute to the culture of the homeland and nation, creating thousands of jobs, contributing to local economic development. However, in current conditions, the production and consumption of traditional handicraft products in the locality face many difficulties and outdated technology. Promotion, advertising, and digital transformation are poor, and the number of orders and contracts is decreasing, leading to low competitiveness and a shrinking market.

A survey of 103 establishments producing traditional handicrafts and 30 customers buying traditional handicrafts online has shown that the production and consumption of products are not great. If we deduct depreciation of fixed assets and family labor wages and pay fair fees, the production establishments of the above occupations may no longer be profitable. If this continues, many establishments will stop production, making it difficult to stand firmly in the market.

To foster the development of craft villages, preserve local traditional crafts, and facilitate production advancement, a multifaceted approach involving the State, local authorities, and production entities themselves is imperative. Practical and effective measures, including integrating digital technology to digitize products for online marketing and consumer market expansion, are essential. Moreover, providing financial support and incentivizing banks and credit institutions to offer preferential credit terms will bolster investment opportunities. Encouraging organizations and businesses to engage in joint ventures and collaborative partnerships to establish comprehensive product supply chains, spanning from market research and product design to raw material procurement, production, distribution, and consumption, is crucial. Implementing these strategies will spur production growth and safeguard and promote traditional crafts in Quang Binh province. Moreover, it will address the evolving needs of production and consumption within the realm of digital transformation.

References

- Aarikka-Stenroos, L. & Ritala, P. (2017). Network management in the era of ecosystems: Systematic review and management framework. – *Industrial Marketing Management*, 67, 23 – 36. <https://doi.org/10.1016/j.indmarman.2017.08.010> .
- Adama, H. E. & Okeke, C. D. (2024). Digital transformation as a catalyst for business model innovation: A critical review of impact and implementation strategies. *Magna Scientia Advanced Research and Reviews*, 2024, 10(02), 256–264. DOI: <https://doi.org/10.30574/msarr.2024.10.2.0066> .
- Ahmad, N. & Schreyer, P. (2016). Measuring GDP in a Digitalised Economy. OECD Statistics Working Papers.
- Allioui, H. & Mourdi, Y. (2023). Unleashing the potential of AI: Investigating cutting-edge technologies that are transforming businesses. – *International Journal of Computer Engineering and Data Science (IJCEDS)*, 3(2), pp.1 – 12.

- Bui, V.T. (2017). The role of families in the development of traditional handicraft villages in Quang Tri. *Journal of Science and Technology Development*, Volume 20, number X1, 2017.
- Chan, Q. V., Do, T.H. (2014). Vietnam Folk Arts Association, book: Vietnamese traditional crafts and their ancestors. Culture and Information Publishing House.
- Duong, B. P. (2001) Preserving and developing villages in the process of industrialization. Social Science Publishing House, Hanoi 2001.
- Fajardo, F. (1999). Agricultural Economics. Fourth Edition: REX Book store, Manila, Philippines
- Gadre, M. & Deoskar, A. (2020). Industry 4.0 – Digital Transformation, Challenges and Benefits. *International Journal of Future Generation Communication and Networking*. Vol. 13, No. 2, (2020), pp. 139 – 149. https://www.researchgate.net/profile/Monika-Gadre-2/publication/344832176_Industry_40_-Digital_Transformation_Challenges_and_Benefits/links/5f92a0c892851c14bcdee777/Industry-40-Digital-Transformation-Challenges-and-Benefits.pdf.
- Government of the Socialist Republic of Vietnam (2018), Decree No. 52/2018/ND-CP dated April 12, 2018 on Rural Industry Development.
- Kraus, S., Jones, P., Kailer, N., Weinmann, A., Chaparro-Banegas, N., and Roig-Tierno, N. (2021). Digital Transformation: An Overview of the Current State of the Art of Research. *SAGE Open*. July-September 2021: 1–15. DOI: 10.1177/21582440211047576. journals.sagepub.com/home/sgo.
- Ministry of Agriculture and Rural Development of Vietnam (2023). Report summarizing the implementation of the agricultural and rural development plan in 2023 and implementing the plan in 2024. <https://www.mard.gov.vn/Pages/tai-lieu-hoi-nghi-tong-ket-nam-2023-va-trien-khai-ke-hoach-nam-2024-nganh-nong-nghiep-va-phat-.aspx>.
- Ministry of Information and Communications of Vietnam (2021). Digital Transformation Handbook. https://www.mic.gov.vn/mic_2020/Pages/TinTuc/152588/Cam-nang-chuyen-doi-so.html.
- Nguyen, H. (2023). Target of 6 billion USD for exporting handicrafts: Where are the problems? *Industry and Trade Newspaper*, Ministry of Industry and Trade of Vietnam. <https://congthuong.vn/muc-tieu-6-ty-usd-xuat-khau-thu-cong-my-nghe-vuong-o-dau-260336.html>.
- Nguyen, T. T. H. and Nguyen, V.D. (2021). Digital transformation for handicraft products in Hanoi. *Science Magazine*, Hanoi Open University, number 84, October 2021.
- OECD (2015). *OECD Digital Economy Outlook 2015*, OECD Publishing, Paris; <http://dx.doi.org/10.1787/9789264232440-en>.
- People's Committee of Quang Binh province (2008). 2075/QD-UBND dated August 27, 2008 of the Chairman of Quang Binh Provincial People's Committee on the Decision on recognizing craft villages and traditional craft villages.
- People's Committee of Quang Binh province (2013). 2331/QD-UBND dated September 23, 2013 of the Chairman of Quang Binh Provincial People's Committee on the Decision to promulgate the Plan to implement the Master Project on environmental protection of craft villages until 2020 and determine towards 2030 in Quang Binh province.
- People's Committee of Quang Binh province (2020). Decision No. 23/2020/QD-UBND dated October 13, 2020 of the Chairman of Quang Binh Provincial People's Committee on Promulgating Regulations on recognition and a number of supporting contents and policies Developing rural industries and craft villages and traditional craft villages in Quang Binh province.
- People's Committee of Quang Binh province (2020). Report on the situation of developing rural industries and preserving and developing craft villages.
- People's Committee of Quang Binh province (2021) Plan 43/KH-UBND dated March 5, 2021 of Quang Binh Provincial People's Committee on propaganda to raise awareness of the Fourth Industrial Revolution and the Program and actual results Currently converting digitally in Quang Binh province.

- People's Committee of Quang Binh province (2023). Plan 2404/KH-UBND dated November 21, 2023 of the Chairman of Quang Binh Provincial People's Committee on the Rural Industry Development Plan of Quang Binh province to 2030.
- Phan, V. H. (2022). Developing handicrafts in traditional craft villages in Thua Thien Hue province. Hue University Science Magazine: Economics and Development. Volume 131, number 5A, 2022.
- Phan, V. H., Nhieu, K.P.H. (2021). Impacts of the COVID-19 pandemic on production and consumption: A case study in traditional bronze casting villages in Thua Thien Hue province. The Third International Conference in Business, Economics & Finance, Can Tho University. ISBN: 978-604-965-832-7.
- Rashiya Bekmurzaeva and G.S. Kovalev (2023). Industry 4.0: The Fourth Industrial Revolution. SHS Web of Conferences 172, 02011 (2023)SHCMS 2023. SHS Web of Conferences. <https://doi.org/10.1051/shsconf/202317202011>. https://www.researchgate.net/publication/372339190_Industry_40_The_Fourth_Industrial_Revolution.
- Rogerson, C.M. (2010). The Enterprise of Craft: Constraints and Policy Challenges in South Africa. Acta Acad. 2010, 42, 115 – 144.
- Shafi, M., Szopik-Depczynska, K., Cheba, K., Ciliberto, C., Depczynski, R. and Ioppolo, G. (2022). Innovation in traditional handicraft companies towards sustainable development. A systematic literature review. Technological and Economic Development of Economy ISSN: 2029-4913 / eISSN: 2029-4921 2022 Volume 28 Issue 6: 1589 – 1621 <https://doi.org/10.3846/tede.2022.17085>.
- Slovin, E. (1960). Slovin's Formula for Sampling Technique. <https://prudencexd.weebly.com/>.
- Telagawathi, N.L.W.S., Suci, N. M. and Heryanda, K. K. (2022). Digital Transformation Strategy for Handicraft SMEs during the Covid-19 Pandemic in Gianyar Regency, Bali. International Journal of Social Science and Business. Volume 6, Number 1, 2022, pp. 47 – 52. P-ISSN: 2614-6533 E-ISSN: 2549-6409. Open Access: <https://dx.doi.org/10.23887/ijssb.v6i1>.
- Thanh, H. (2017). Building the brand of Bun Song and Cam Lo. Cam Lo district electronic information portal. <http://camlo.quangtri.gov.vn/Cam-lo-yeu-thuong/xay-dung-thuong-hieu-bun-song-cam-lo-388.html>.
- UNESCO/International Trade Centre (ITC) (1997). Symposium: "Crafts and the International Market: Trade and Customs Codification", Manila, 6 – 8 October 1997. Available online: <http://www.unesco.org/new/en/culture/themes/creativity/creative-industries/crafts-and-design> or <https://unesdoc.unesco.org/ark:/48223/pf0000111488>.
- Vu, N. (2009). Applicability of the OVOP Movement in rural tourism development The Case of Craft tourism in Vietnam. – *International Journal of Social and Cultural Studies*, 2: 93-112. <http://hdl.handle.net/2298/28784>.
- Yang, Y., Shafi, M., Song, X. and Yang, R. (2018). Preservation of Cultural Heritage Embodied, – In: Traditional Crafts in the Developing Countries. A Case Study of Pakistani Handicraft Industry". Accelerating Open Access, Sustainability 2018, Vol 10(5), 1336; <https://doi.org/10.3390/su10051336>. MDPI, Basel, Switzerland.
- Zbucha A. (2022). Traditional Crafts. A Literature Review Focused on Sustainable Development, Culture. Society. Economy. Politics, 2(1), 10 – 27. <https://doi.org/10.2478/csep-2022-0002>. ISSN (online) 2810-2010. <https://website.sciendo.com/publication/culture-society-economy-politics/> <http://www.facultateademangement.ro/culture-sep/>.

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