

**YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF ECONOMICS
MASTER OF DEVELOPMENT STUDIES PROGRAMME**

**A STUDY ON FACTORS AFFECTING SMALL-SCALE WOODEN
HANDICRAFT ENTERPRISES UPGRADING IN MYANMAR
(CASE STUDY: BAGO TOWNSHIP)**

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NOVEMBER, 2024

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A thesis submitted in partial fulfillment of the requirements for the Master of
Development Studies (MDevS) Degree

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This is to certify that the thesis entitled “**A Study on Factors Affecting Small-Scale Wooden Handicraft Enterprises Upgrading in Myanmar: A Case Study of Bago Township**” submitted as partial fulfillment towards the requirements for the degree of Master of Development Studies has been witnessed by the Board of Examiners.

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ABSTRACT

This study explores the factors impacting the growth and upgrading of small wooden handicraft enterprises in Myanmar. Using a direct impact matrix to assess twelve critical factors within the enterprise, the research highlights that entrepreneurship, marketing, location, and raw material supply exert the most substantial influence on enterprise development and sustainability. The findings reveal that market challenges, limited credit access, raw material scarcity, and logistical constraints are significant hurdles for these enterprises. Based on the results, suggestions focus on improving credit access, securing sustainable raw material supplies, fostering innovation, and expanding market reach, particularly internationally. These strategic initiatives could enable Myanmar's handicraft sector to achieve sustainable growth, support local economies, and preserve cultural heritage.

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LIST OF ABBREVIATIONS

USAID	United States Agency for International Development
COVID-19	Coronavirus Disease 2019
FGD	Focus Group Discussion
UNESCO	United Nations Educational, Scientific and Cultural Organization
OEC	Observatory of Economic Complexity
CAGR	Compound Annual Growth Rate
SME	Small and Medium Enterprise
EU	European Union
U.S SBA	United States Small Business Administration
GDP	Gross Domestic Product
UNIDO	United Nations Industrial Development Organization
FAO	Food and Agriculture Organization
ITTO	International Tropical Timber Organization
OECD	Organization for Economic Co-operation and Development
MEs	Micro Enterprises
ADB	Asia Development Bank
IFC	International Finance Cooperation
MicMac	Matrix Cross-Reference Multiplication Applied to a Classification

CHAPTER I

INTRODUCTION

1.1 Rationale of the Study

Handicrafts are distinct cultural expressions created through local craftsmanship and materials (Global Market Assessment for Handicrafts, USAID, 2006). They are a part of the larger home accessories market, which includes handmade, semi-handmade, and machine-made products (Global Market Assessment for Handicrafts, USAID, 2006).

In 2021, the global market for handicrafts was valued at \$680 billion and is expected to grow to \$1,252 billion by 2027, reflecting a Compound Annual Growth Rate (CAGR) of 10.41% (Cyrus Craft, 2022). In 2020, the wood and metal sectors were the primary contributors to the global handicrafts market, particularly in producing kitchenware, decorative items, and toys (Cyrus Craft, 2022).

Handicraft production serves as a major source of job opportunities in developing countries, contributing significantly to the export economy. However, artisans often face difficulties in connecting directly with end markets, making it challenging to export their goods (USAID, 2006). In Asia, handicraft industry in China, Vietnam and India are taking crucial role in the export economy (USAID, 2006).

Myanmar has a long history of traditional handicrafts, many of which are still practiced today, including ten recognized as 'Myanmar's Ten Flowers' (Myanmar Matters, 2015). According to the Myanmar Census (2014), the crafts sector is the second-largest employer in the country, providing jobs for 2.4 million people, which makes up 12% of the urban workforce.

As part of the National Export Strategy (2020-2025), Myanmar aims to foster sustainable, export-driven growth by prioritizing the handicraft sector among the 11 key sectors for export development. Despite its potential, Myanmar's handicraft industry faces challenges, including poorly organized institutions and the absence of a comprehensive national development strategy (Joseph Lo, 2015).

Craftsmanship is often a direct link to a community's history, values, and way of life. In Myanmar, traditional wooden handicrafts like those from Bago Township

connect people to ancient techniques and Burmese cultural motifs. Losing these crafts would mean losing a part of the cultural identity itself. Small craft enterprises support local economies by providing jobs, especially in rural areas where employment opportunities may be limited. Revitalizing small craft enterprises creates jobs and empowers artisans, giving them economic independence and a sustainable livelihood. Traditional crafts inspire modern designs, merging heritage with contemporary aesthetics. This innovation keeps crafts relevant and helps artisans expand their markets. As wooden handicraft enterprises are kind of Small and Medium Enterprises in our country and their development are directly linked with the economic development of the nation.

Eventhough the handicraft market is largely reliant on the tourism industry, there is also a growing demand for handicrafts in global trade. To achieve greater economic benefits, it is essential to expand focus beyond just the domestic and tourism markets to include international trade opportunities for handicrafts. Gaining insight into the factors that support the development and advancement of small-scale handicraft businesses is key to developing effective policies and strategies that can drive rural development, reduce poverty, promote sustainable growth, strengthen the economy, and preserve cultural heritage. Consequently, this study aims to explore the factors that influence the growth and advancement of small-scale handicraft enterprises.

1.2 Objective of the Study

The objectives of the study are:

- (1) To describe the current status of small-scale wooden handicraft enterprises in the study area, and
- (2) To explore factors influencing the development of small-scale wooden handicraft enterprises.

1.3 Method of Study

This study used a descriptive analysis. Both primary and secondary data are utilized to accomplish these objectives. A questionnaire survey is administered as a prerequisite for both quantitative and qualitative methodologies. By simple random sampling, primary data is collected from 40 enterprises out of nearly 100 small-scale wooden handicraft enterprises. Focus Group Discussions (FGD) were also done to

explore influencing factors for the enterprise upgrading. For secondary data, information is collected from the relevant articles, textbooks and internet websites.

1.4 Scope and Limitations of the Study

The study focuses on the factors influencing development of small-scale wooden handicraft enterprises in Bago Township. The study highlights the view of enterprises and relevant stakeholders of wooden-handicraft sector in Bago Township and the consumer opinions are not considered in the study.

1.5 Organization of the Study

This research is organized into five chapters. The first chapter introduces the study, covering its rationale, objectives, methodology, scope, limitations, and structure. Chapter two comprises the literature review. Chapter three provides an overview of Myanmar's handicraft sector. Chapter four focuses on analyzing the survey data, while Chapter five presents the conclusions of the study.

CHAPTER II

LITERATURE REVIEW

2.1 Definitions of Wooden Handicraft

Wooden handicraft refers to the art of creating decorative and functional items from wood, using traditional craftsmanship techniques. These items are often handmade and showcase intricate designs that reflect cultural heritage and artisanal skill. According to the Artisans Cooperative (2021), wooden handicrafts represent "creative works made from wood, crafted by hand or using traditional methods, often symbolizing cultural significance and craftsmanship."

Wooden handicrafts are crafted objects made primarily from wood, often involving techniques like carving, sculpting, and inlay work to produce both functional and decorative items. These products are celebrated for their aesthetic appeal, cultural value, and the intricate craftsmanship involved in their creation (Exclusive Lane, 2020; Wooden Handicrafts, n.d.).

Exclusive Lane describes wooden handicrafts as products made by decorating or carving wood, where each item reflects the artisan's individual skill, creating unique designs that carry cultural and traditional significance (ExclusiveLane, 2020). According to Wooden Handicrafts (n.d.), wooden handicrafts range from everyday objects to decorative pieces, utilizing a variety of wood types like teak and mahogany. Each item showcases the craftsman's skill, adding a personal touch that mass-produced items lack.

2.2 Overview of Global Market of Wooden Handicrafts

Handicrafts are items produced wholly by hand or with the aid of tools. Although mechanical tools may be utilized, the artisan's manual contribution must remain the primary determinant in the production of the final product (UNESCO).

The global wooden handicraft market is experiencing notable growth, influenced by increasing consumer interest in handmade, sustainable, and culturally unique products. These items, often created using traditional skills, appeal to consumers seeking distinct, environmentally friendly products. This trend has grown alongside heightened awareness of ecological impact and demand for products with cultural value and authenticity.

The global handicraft market was valued at over USD 718 billion in 2021, with a steady growth rate projected as consumer interest expands globally (Grand View Research, 2022). Handicrafts, particularly wooden crafts, benefit from a growing inclination toward eco-friendly products, making wooden handicrafts highly desirable in both developed and emerging economies. As reported by Mordor Intelligence (2023), the sector is anticipated to grow due to increased accessibility through e-commerce and international trade. This online market provides artisans with broader market access, further supporting global growth in demand for wooden handicrafts.

The trend toward sustainability is a significant factor influencing market demand. Consumers are prioritizing sustainable materials and traditional craftsmanship over mass-produced goods, particularly in regions like North America and Europe, where sustainability awareness is high (Research and Markets, 2023). Wooden handicrafts are viewed as eco-friendly due to the renewable nature of wood and the potential for responsible sourcing from certified forests, a key factor driving their demand in these regions (Market Watch, 2022).

Wooden handicrafts, especially in the home decor and gifting sectors, are gaining attraction as people opt for items that add a personalized and artisanal touch to spaces. Handmade wooden products such as carved furniture, wall art, and kitchenware are widely popular for interior decoration. As more consumers seek artisanal, handmade products with cultural resonance, wooden handicrafts have become favored items for both home decor and gifts. This is especially prevalent in North American and European markets, where unique and sustainable decor products are in demand (Allied Market Research, 2023).

In 2022, wooden cookware was the 734th most traded product worldwide, with a total trade value of \$2.44 billion. Between 2021 and 2022, exports of wooden kitchenware experienced a 6.97% increase, ascending from \$2.28 billion to \$2.44 billion. Wooden cookware trade constitutes 0.01% of total global trade. The commodities categorized as wood, wood products, and charcoal encompass wooden tableware and kitchenware utilized for cooking, serving, and consuming food in kitchens and dining areas (OEC, 2024).

In 2022, the principal exporters of wooden kitchenware were China (\$1.58 billion), Vietnam (\$93 million), India (\$90.3 million), Germany (\$82.6 million), and the Netherlands (\$69.8 million). The principal importers comprised the United States

(\$481M), Japan (\$272M), Germany (\$176M), France (\$126M), and the Netherlands (\$108M) (OEC, 2024).

Between 2021 and 2022, China recorded the most significant rise in wooden kitchenware exports, increasing by \$154 million, followed by Vietnam (\$14 million), Thailand (\$7 million), India (\$6.3 million), and Uzbekistan (\$6.06 million). The most rapidly expanding importers were Japan (\$33.2 million), India (\$20.5 million), Spain (\$17.7 million), Canada (\$15.4 million), and Thailand (\$14.3 million) (OEC, 2024).

With the increasing consumer inclination towards natural and organic lifestyles, the wooden cutlery market is anticipated to grow, exhibiting a projected Compound Annual Growth Rate (CAGR) of 4.8% from 2023 to 2033, ultimately achieving an estimated value of \$308.8 million by 2033.

Despite these growth factors, the wooden handicraft market faces some challenges. The availability and sourcing of quality raw materials like sustainably sourced wood can be difficult and often depends on regional policies on deforestation and environmental protection. Fluctuations in wood prices due to supply chain constraints can impact small artisans and influence pricing strategies. Furthermore, because many wooden handicrafts are produced by small and medium-sized enterprises, competition with cheaper, mass-produced goods poses a significant challenge (Market Research Future, 2023).

2.3 The Concept of Small and Medium Enterprise

Small and Medium Enterprises (SMEs) are defined as enterprises whose revenues, assets, or staff count are below a designated threshold, which differs by country and industry. These criteria are crucial for comprehending the economic significance of SMEs. The Organisation for Economic Co-operation and Development (OECD) estimates that small and medium-sized enterprises (SMEs) constitute 90% of firms and employ 63% of the worldwide workforce (Munro, 2013). SMEs are defined in several ways, which can be classified into three categories: definitions by international organizations, definitions by national legislation, and industry-specific definitions (Berisha and Pula, 2015).

The European Union (EU) defines a small firm as one that employs less than 50 individuals, whilst a medium-sized enterprise employs between 50 and 249 individuals (European Commission, 2020).

Table 2.1 Definition of Small and Medium Enterprises with European Union Standards

Enterprise category	Headcount: Annual Work Unit (ANU)	Annual turnover or Annual balance sheet total
Medium-sized	<250	≤€50 million
Small	<50	≤€10 million
Micro	<10	≤€2 million

Source: European Commission (2005)

The Small Business Administration (SBA) defines a small business in the United States as one with less than 500 employees, however this classification may differ considerably depending on the industry. The World Bank categorizes SMEs according to three quantitative parameters: staff count, total assets in U.S. dollars, and yearly sales in U.S. dollars (IEG, 2008).

Table 2.2 Definition of Small and Medium Enterprises by World Bank Standards

Enterprise indicators	Number of employees	Total assets or Total annual sales
Medium	>50; ≤300	>\$ 3,000,000; ≤\$ 15,000,000
Small	>10; ≤50	>\$ 100,000; ≤\$ 3,000,000
Micro	<10	≤\$ 100,000

Source: Independent Evaluation Group (2008)

It was found that the definitions of SME by European Union and World Bank are more or less the same in terms of working units but different in total assets with the EU accommodating larger financial values in turnover and assets, likely reflecting higher living costs and economic structures in Europe. Furthermore, each nation possesses the autonomy to delineate SMEs based on its specific criteria, leading to a diverse array of SME definitions globally. Consequently, contemporary SME theory encompasses several meanings (Berisha and Pula, 2015). Table (2.3) delineates several of these definitions.

Table 2.3 Distribution of Firms by Number of Employees in Different Countries

	Micro	Small	Medium	SME	Large
EU countries, Iceland, Norway and Switzerland	1-9	10-49	50-249	1-249	250+
Australia	0-9	10-49	50-199	0-199	200+
Canada	0-9	10-49	50-499	0-499	500+
Japan	4-9	10-49	50-249	4-249	250+
Korea	5-9	10-49	50-199	5-199	200+
Mexico	0-10	11-50	51-250	1-250	251+
New Zealand	1-9	10-49	50-99	0-99	100+
Turkey	0-19	20-49	50-249	1-249	250+
United States	0-9	10-99	100-499	1-499	500+

Source: OECD (2010)

In developing nations, where employment statistics and profits are frequently skewed by tax implications, sales are typically regarded as the primary metric of a business's scale and performance (Gibson and van der Vaart, 2008). The importance of delineating SMEs for policymakers resides in evaluating various business classifications and their impacts on employment, Gross Domestic Product, and other macroeconomic metrics. This informs policies, development plans, and support programs designed to promote small and medium firms (Berisha and Pula, 2015).

The Small and Medium Enterprise Development Law in Myanmar, enacted in April 2015, categorizes firms into six primary classifications according to employee count and capital investment value (SME Law, 2015).

2.4 The Role of SME in Economic Development

Small and Medium-sized Enterprises (SMEs) are recognized as significant contributors to economic growth and development in both industrialized and developing nations. Small and medium-sized enterprises (SMEs) promote employment, encourage innovation, and enhance income generation, all of which are essential for a nation's economic vitality. Their contribution to economic development is complex, influencing multiple tiers of the economy and tackling socio-economic issues. Although there are multiple definitions of SMEs, the significance and utility of defining them are evident in several domains: compiling statistics and assessing the sector's health over

time; facilitating comparisons between economies and regions within an economy; setting thresholds for taxation or regulatory objectives; and ascertaining eligibility for particular types of public assistance (UNIDO OECD, 2004).

Developing countries, like Myanmar, have recognized the significance of SMEs in job creation, innovation, and economic dynamism (Abe et al., 2012). Prior research has demonstrated that small and medium-sized enterprises are essential to a nation's economy. The effective execution of SME development is intricately connected to the nation's overall economic advancement. Promoting SME growth is a complex and challenging task, influenced not only by policies and external factors but also by the characteristics of SMEs and their performance (Oum, 2013).

Firstly, SMEs are vital for employment generation. They often represent a significant portion of total employment in a country, particularly in developing nations where formal job opportunities may be scarce. By offering jobs to diverse demographics, including unskilled, semi-skilled, and skilled labor, SMEs contribute to a reduction in unemployment rates and provide stable incomes that can uplift communities (Beck, Demirguc-Kunt, & Levine, 2005). In some regions, SMEs are responsible for employing over 70% of the labor force, underlining their crucial role in labor markets (Ayyagari, Beck, & Demirguc-Kunt, 2007).

Secondly, SMEs contribute significantly to Gross Domestic Product (GDP). As they are often involved in various sectors, such as manufacturing, services, and retail, they help diversify the economy, making it less vulnerable to sector-specific shocks. This diversification also supports a more resilient economy capable of withstanding global fluctuations. SMEs' contributions to GDP are particularly valuable in developing countries, where large corporations may be less prevalent. SMEs provide goods and services at local and regional levels, keeping economic activity dispersed and dynamic (Beck & Demirguc-Kunt, 2006).

SMEs also serve as a vital source of innovation. Due to their flexibility and adaptability, they can respond swiftly to market demands and technological changes. Many SMEs are led by entrepreneurs who bring new products, processes, and services to the market, often pioneering trends that larger corporations may later adopt. This innovation contributes to productivity growth and competitive advantage on both national and international scales (Acs, Morck, & Yeung, 1999). Through innovation, SMEs also enhance customer choices and improve quality standards, directly contributing to consumer welfare.

Moreover, SMEs encourage a more equitable income distribution and promote inclusive economic growth. By operating in local and rural areas, they create opportunities for individuals who might otherwise be excluded from economic participation, such as women and young people. In many cases, SMEs are family-owned or community-based, and their success directly benefits local economies. This inclusivity strengthens social cohesion and can help alleviate poverty, as income generated within communities often stays within those communities, creating a multiplier effect on local economic activity (Beck & Cull, 2014).

In addition, SMEs are instrumental in export growth, which is essential for economic development. By participating in global value chains, SMEs can access international markets and enhance their competitiveness. Export-oriented SMEs enhance a nation's balance of payments and promote its foreign exchange revenues. As SMEs grow and access new markets, they build international relationships that support both national and global economies (World Bank, 2013).

Lastly, SMEs contribute to economic stability by reducing dependency on large corporations or single industries. This diversified base of smaller businesses can sustain economic activity during downturns and provides a more stable foundation for recovery during economic crises (Ayyagari et al., 2007). Governments and policymakers often focus on creating an enabling environment for SMEs, including access to financing, training, and regulatory support, because of their proven impact on long-term economic development.

2.5 Factors Influencing the Upgrading of Small and Medium Enterprises

Small and Medium Enterprise (SME) upgrading refers to initiatives designed to enhance the capabilities, competitiveness, and performance of SMEs through various interventions. These interventions can include enhancing technological capabilities, improving production processes, expanding market access, and fostering innovation. The goal of SME upgrading is to help the enterprises become more resilient and competitive, especially in global markets, which can, in turn, contribute to economic development and job creation (J. Humphrey and H. Schmitz, 2002).

The primary objectives of SME development are to (a) generate employment and income, (b) improve SME performance and competitiveness, and (c) augment their participation in and contribution to the national economy (Abe et al., 2012). Various strategies to attain these objectives encompass (a) cultivating a conducive business

climate, (b) advancing entrepreneurship, (c) facilitating financing, (d) enhancing company development services, (e) stimulating innovation and technology, and (f) augmenting market access (Abe et al., 2012).

The determinants of SME growth are intricate. Comprehending and evaluating these elements is essential for optimizing operations, improving productivity, and facilitating informed business decisions. Internal and external factors significantly influence enterprise upgrading (Chau and Turner, 2002; Reeg, 2013; Seetharaman et al., 2016). This study examines both internal and external elements in the enhancement of wooden handicraft firms within the research region.

2.5.1 Internal Influencing Factors for Upgrading of Small and Medium Enterprises

The Resource-Based View (RBV) of the enterprise serves as a theoretical framework for identifying the essential resources that impact business development. It aids in evaluating a company's strengths, weaknesses, competitive advantage, and in developing a suitable business plan (Acedo et al., 2006; Barney, 1991; de Oliveira Wilk and Evaldo Fensterseifer, 2003). The RBV model categorizes the internal resources influencing an enterprise's development into six primary components (Madhani, 2010; Armstrong and Shimizu, 2007):

- (i) Human resources (entrepreneurial and employee attributes)
- (ii) Physical resources (equipment, site, and infrastructure)
- (iii) Products and marketing (quality of products and marketing initiatives)
- (iv) Innovation (emerging markets, novel designs, and advanced capabilities)
- (v) Financial assets (liquid reserves and capacity to generate capital)
- (vi) Business performance (sales, profit, and productivity).

(i) Human Resources

To demonstrate the impact of human resources on enterprise upgrading, the characteristics of an entrepreneur and the employee are examined in this study because entrepreneurs are essential to enterprise development by fostering innovation, embracing risk, and executing strategic decisions within organisations. Their vision and leadership can profoundly impact firm success by identifying market possibilities and creating products or services that fulfil consumer demands. Proficient entrepreneurs utilise their abilities to confront obstacles, adjust to evolving market dynamics, and

adopt innovative technology, hence enhancing the competitiveness of their businesses (Rao, 2021 & Heip, 2021). By fostering a culture of creativity and prompting the employees to engage in innovative thinking, entrepreneurs may establish a dynamic environment that facilitates ongoing enhancement and sustainable growth (Drucker, 2019).

An entrepreneur's personal network is a crucial asset for enterprise upgrading, offering access to resources, information, and prospective collaborations that can facilitate growth of enterprise (Bratkovic et al., 2009; Narkhede et al., 2014). Entrepreneurs can acquire insights about industry trends, best practices, and market dynamics through their networks, which are crucial for informed decision-making (Hoang & Antoncic, 2003). These network can also enable cooperation with other enterprises, access to funding sources, and possibilities for mentorship and assistance. Therefore, effective use of personal networks allows entrepreneurs to obtain varied viewpoints and resources, fostering new solutions and competitive advantages, therefore improving their firms' overall capabilities (Burt, 2019).

Employees are considered one of the most crucial factors of production in a business, as they play a key role in boosting productivity, driving innovation, and creating a competitive advantage. Their contributions exert a greater influence on the business performance of SMEs compared to other elements of intellectual capital (Muda and Rahman, 2016). They are integral to enterprise upgrading, as their skills, knowledge, and engagement directly impact productivity and innovation. A well-trained workforce can enhance operational efficiency and drive the adoption of new processes and technologies that are vital for enterprise advancement (Becker & Huselid, 2019). However, enterprises often fail attributable due to deficiency of proficient labor and obsolete technologies, and insufficient marketing strategies (Hampel-Milagrosa, 2014). So, investing in employee development and creating an inclusive work environment not only improves job satisfaction but also enhances the overall performance of the enterprise, positioning it for long-term success (Kearney & Parnell, 2018).

Due to their important roles in enterprise development, this study examines the characteristics of entrepreneurs and employees in wooden handicraft enterprises and how these factors influence SME upgrading.

(ii) Physical Resources

Recent studies underscore the correlation among technology, equipment, worker productivity, business success, and business growth (Heip, 2021). Companies that invest in contemporary gear generally attain greater labor efficiency and enhanced business performance relative to those utilizing outdated technology (Le, 2010; Tambunan, 2007). Innovative technology profoundly influences production and marketing endeavors (Sandee, 1994), enabling organizations that use cutting-edge solutions to secure a competitive advantage and draw more customers compared to those dependent on obsolete technologies. Technology is deemed an essential element for the development of businesses (Jasra et al., 2012).

However, SMEs in developing countries often struggle to adopt new technologies due to the high costs associated with technological investments (Jasra et al., 2012). Older equipment and technology hinder productivity and make it more difficult for businesses to access markets (Hampel-Milagrosa, 2014; Le, 2010).

Additionally, the location of an enterprise plays an important role in service access and export potential (Heip, 2021; Li et al., 2016; Stearns et al., 1995). Small and Medium Enterprises situated in urban or commercial areas are 25% more likely to survive and expand their markets more quickly than those located in rural regions (Liedholm, 2002; Mead and Liedholm).

Therefore, this study investigates the impact of technology, machinery, and location on the development of wooden handicraft enterprises.

(iii) Products and Marketing

The role of product development in SMEs is crucial for their growth and competitive positioning. Effective product innovation allows SMEs to differentiate themselves in the market, enhancing their ability to attract and retain customers (Benzing, Chu, & Kara, 2009). Moreover, product diversification provides SMEs with the flexibility to adapt to changing consumer demands and economic fluctuations, fostering long-term sustainability (Farsi & Toghraee, 2014). By focusing on customer-centered product improvements, SMEs can also improve brand loyalty and open doors to new markets (Atalay, Anafarta, & Sarvan, 2013). Thus, product development is not just a growth strategy but a means for SMEs to upgrade their capabilities and scale their operations effectively.

Marketing is a commercial activity dedicated to formulating strategies for pricing, marketing, and distribution of goods and services to satisfy the requirements of both current and prospective customers (Maro'ah et al., 2018; Kotler et al., 2015). The relationship between marketing and business expansion differs among various industries. Efficient marketing management is crucial for enhancing market share and promoting the growth of SMEs (Liu, 2019). Marketing competencies are seen as an essential asset for enterprises, favorably influencing business results and significantly contributing to export performance and strategy orientation (Liu et al., 2015; Nalcaci and Yagci, 2014).

Critical success factors for accessing markets include, among others, the ability to gather market information, participate in business networks, and overcome non-tariff barriers. Market access is often categorized into local and international markets. Due to the constraints of domestic markets, SMEs must pursue international markets by participating in global and regional value chains, which provide various value-added opportunities in international trade. However, SMEs face challenges in expanding beyond local markets due to limited access to market information and networking opportunities (Yao, 2014).

This study investigates the product and marketing dimensions of wooden handicraft firms and their influence on the enhancement of SMEs.

(iv) Innovation

Innovation encompasses the creation of new products, technologies, markets, services, organizational frameworks, and inventive combinations designed to fulfill client requirements (Ndesaulwa and Kikula, 2016; Martin and Namusonge, 2014; Diaconu, 2011; Baregheh et al., 2009). Plessis (2007, p. 21) asserts that innovation entails the generation of novel information and concepts that enhance corporate performance, focusing on the optimization of internal processes and structures to provide market-oriented products and services.

Like other industries, innovation plays a vital role in the wooden handicraft sector, enhancing product quality, improving production processes, and expanding market reach. By integrating innovative techniques and materials, artisans can create unique and high-quality products that cater to evolving consumer preferences. For instance, the use of modern design tools and sustainable materials not only elevates the aesthetic appeal of wooden handicrafts but also aligns with the growing consumer

demand for eco-friendly products (Osei et al., 2020). Furthermore, innovation in production processes, such as the adoption of digital fabrication technologies, can lead to increased efficiency and reduced waste, thereby improving the sustainability of the craft (Singh & Shukla, 2021). This combination of creativity and technology is essential for artisans to differentiate their offerings in a competitive marketplace. Moreover, embracing innovation allows wooden handicraft enterprises to adapt to changing market conditions and consumer behavior (Hennigs et al., 2018).

Innovation in SMEs within developing nations is frequently constrained by various causes, including inadequate economic development, which hinders investment in innovation. The restricted financial resources and capacities of these enterprises pose substantial barriers to their innovative potential (Chundakkadan and Sasidharan, 2019). The aforementioned factors underscore the significance of innovation in improving businesses. Consequently, the function of innovation has been integrated into the process of identifying methods to enhance timber firms.

(v) Financial Resources

Financial resources have been identified as a pivotal aspect affecting the development of small and medium enterprises (SMEs) (Jasra et al., 2012). These resources directly influence investments in production, marketing, and the growth of SMEs in Vietnam (Cuong et al., 2007a). In Tanzania, access to sufficient microfinance correlates with increased sales and earnings for SMEs (Makorere, 2014). Even minimal financing might act as a crucial catalyst, enabling SMEs to get the necessary resources for market establishment. Nonetheless, restricted access to financing continues to be a significant obstacle to the establishment and expansion of SMEs (United Nations, 2014; Theingi and Mon, 2010). In developing nations, SMEs encounter a funding deficit due to difficulties in securing capital. Despite the willingness of financial institutions to extend credit to SMEs, numerous enterprises fail to satisfy the lending requirements established by these institutions (Nguyen et al., 2019; Yang et al., 2019). Consequently, SMEs frequently depend on internal capital and resources from the informal sector. "Nearly 60 percent of exporting SMEs in the Asia-Pacific region rely solely on internal financing, compared to 40 percent globally" (United Nations, 2014). This highlights the importance of financial resources in the identification of factors influencing the upgrading of wooden handicraft enterprises.

2.5.2 External Influencing Factors for Upgrading of Small and Medium Enterprises

Enterprise upgrading is affected by both internal and external factors, which significantly impact the process for SMEs (Reeg, 2013). External variables are aspects beyond a company's control that influence its operations and performance. According to Reeg (2013), the external resources impacting enterprise enhancement comprise the corporate environment, social media, and business networks.

(i) Raw Material Supply

Myanmar has abundant forest resources that contribute significantly to its economy, biodiversity, and the livelihoods of many communities. Forests cover approximately 42.19% of the country's land area, making Myanmar one of the most forested nations in Southeast Asia (FAO, 2020). However, deforestation and forest degradation are major challenges, leading to a decline in forest cover due to factors like illegal logging, agricultural expansion, and infrastructure projects (The World Bank, 2021).

From 2010 to 2020, Myanmar lost about 2.2 million hectares of forest, a loss rate among the highest in Southeast Asia (The World Bank, 2021). The country has lost approximately 13% of its forest cover between 1990 and 2020, with an annual deforestation rate that ranks among the highest in Southeast Asia (FAO, 2020).

Deforestation poses significant challenges in Myanmar, particularly in relation to the raw material needs for wooden handicrafts. The country's rich forest resources have traditionally provided a sustainable source of timber for the handicraft industry, which is an important sector for both local economies and cultural heritage. However, as deforestation accelerates, the availability of high-quality timber is diminishing, leading to increased competition for resources and unsustainable practices.

The handicraft sector, which relies heavily on wood from native species, faces a dual challenge: the depletion of forests and the rise in illegal logging activities. With traditional sources of timber becoming scarce due to extensive logging and land conversion for agriculture, artisans often resort to unsustainable practices or illegal harvesting to meet their material needs (FAO, 2020). This not only threatens the sustainability of the handicraft industry but also contributes further to environmental degradation. Moreover, as certain species become overharvested, there is a risk of

losing valuable genetic resources, which could impact both biodiversity and the quality of handicrafts produced (ITTO, 2022).

As previously mentioned, the availability of raw wood materials has a significant impact on the production strategy of wooden handicraft enterprises. Hence, raw materials are identified as a key factor influencing the upgrading of wooden handicraft enterprises in the study area.

(ii) Institutional Conditions

Institutional conditions, which include the business environment, government policies, and support from both domestic and international organizations, play a key role in the development of business enterprises. Recent studies highlight that favorable institutional conditions promote enterprise upgrading (Chundakkadan and Sasidharan, 2019; Park et al., 2019; Belke, 2013). Establishing policies and an institutional framework that address the needs of SMEs is essential for creating a supportive policy and regulatory environment where SMEs can flourish. The design of the institutional framework is crucial in determining the effectiveness of policy implementation (OECD, 2014a).

Nevertheless, certain research indicate that obtaining policies may be difficult due to intricate methods (Kyophilavong et al., 2007). Moreover, policies may be ineffectively executed due to a substantial disparity between policy aims and real-world application. Factors like tax burdens, inequitable competition, inadequate finance, corruption, elevated inflation, volatile exchange rates, and ineffective land policies impede the development of small firms (Krasniqi, 2007; Nguyen and Wongsurawat, 2012). These problems collectively illustrate that institutional settings are a pivotal aspect affecting enterprise advancement.

2.6 Reviews on Previous Studies

Jahangir Ahmad Bhat and Pushpender Yadav (2016) conducted a study on the handicraft sector and its role in the Indian economy. The study aimed to analyze the contribution of handicrafts to foreign inflows into the Indian economy, as well as their growth and decline over the past fifteen years. The findings revealed that the handicraft sector is closely linked to the rural economy, and its growth or decline reflects the overall state of both the rural and national economies.

Yongzhong et al. (2018) performed a study on the conservation of cultural heritage in Pakistan's traditional crafts industry. The study sought to identify obstacles confronting traditional craftsmanship in developing nations and to suggest solutions that enhance the sustainability of craft heritage. The objective was to guarantee the transmission of craft skills and knowledge across generations. The study identified several impediments, including disputes regarding the definition and classification of handicrafts, insufficient data, industrialization, mass production, diminished interest among younger generations, inadequate infrastructure, a lack of innovation, restricted access to technology and education, and limited financial resources. These concerns are undermining the value of craft history, and the analysis indicated that traditional crafts are progressively vanishing. Urgent measures are required to safeguard this cultural asset, as the outlined difficulties provide substantial risks to its preservation in developing countries.

Mar Mar Maw (2019) studied about bamboo based handicraft industry of Myanmar with the objectives to identify the condition of production and utilization of the bamboo based handicraft and to find out the challenges and opportunities of bamboo based handicraft industries. From that study, it was found that the benefits of handicraft enterprises are creating job opportunities and upgrading their living standards. But, the main problems are scarcity of quality raw bamboo in order to produce quality products, high production costs, lack of investments and lack of advanced techniques for production. The author highlights that advanced bamboo production technologies, technical know-how and acquirement of quality raw bamboo are essential for development of bamboo based handicraft industries in Myanmar.

N. Sudha et al. (2021) conducted a contemporary study on the marketing strategies of wooden handicraft products, exploring opportunities and challenges in rural areas. The study revealed that the export of handicrafts, particularly wooden products, plays a significant role in the global market, with projections indicating it could reach \$984.8 billion by 2023, according to CISION reports. However, challenges faced by the global handicraft market include shorter product life cycles, lack of protection under Intellectual Property Rights (IPR), and pressure on producers.

Lakshmi Devaraj (2021) examined the role of artisans in Kerala, intending to assess the socio-economic conditions and obstacles encountered by craftsmen. The research indicated that the handicraft sector plays a crucial role in the Indian economy by employing numerous artisans in rural and semi-urban regions and earning

considerable foreign exchange. Nonetheless, the sector encounters obstacles like inadequate organization, insufficient education, limited capital, restricted exposure to new technologies, paucity of market information, and a fragile institutional framework. Notwithstanding these limitations, the Indian handicraft sector possesses significant growth potential owing to the availability of inexpensive labor and lower investment prerequisites relative to other nations, excluding China.

Tran Van Hiep (2021) analyzed the principal factors influencing the enhancement of small bamboo firms in North Vietnam, emphasizing the correlation between value chain upgrading elements and their effect on enterprise growth. The research revealed that bamboo and rattan handicraft firms significantly depend on handicraft families for production, with participation in trade fairs being essential for market access. The research highlighted that innovation in product design and raw materials is crucial for achieving a competitive advantage, whereas technology and advanced machinery are necessary for establishing a competitive edge in small semi-industrial bamboo firms.

Isaac Kazungu (2023) investigated the impact of Business Development Services (BDS) on the involvement of rural-based micro-enterprises (MEs) in Tanzania's export markets, particularly within the handicraft sector. The study revealed a strong link between rural MEs' export participation and various forms of support, including technical assistance, entrepreneurship, and leadership training. The findings highlighted that BDS plays a key role in encouraging rural MEs to enter export markets. The study advised creating a supportive policy and institutional environment to ensure that BDS is frequently offered at affordable rates, tailored to the needs of these MEs, and suggested establishing business networking platforms to deliver essential export market insights.

CHAPTER III

BACKGROUND OF WOODEN HANDICRAFT SECTOR IN MYANMAR

3.1 Background History of Handicraft in Myanmar

The traditional arts and crafts of Myanmar, known collectively as "Pan Sel Myo" or the "Ten Flowers," represent a foundational aspect of Myanmar's cultural heritage. These crafts include specialized skills such as blacksmithing, bronze casting, goldsmithing, lacquerware production, masonry, painting, stone carving, stucco work, and turnery. The significance of these arts is not only cultural but also historical, with methods and traditions being passed down through generations (Dagon Nat Shin, 1978).

The term "pan," derived from the Burmese word for "flower," reflects both the act of creation and the artistry involved. Scholars note that "pan" implies creative work, which encompasses the conceptualization and crafting process involved in each art form. Some researchers suggest that the term may also be rooted in religious and educational contexts, linking Myanmar's traditional crafts with the religious and cultural influences from neighboring regions, including Tibet and China (Dagon Nat Shin, 1978).

Historically, the development of the "Ten Flowers" is often associated with the Bagan period, especially under King Anawrahta's reign. As the first king to unify Myanmar, he promoted Buddhism, leading to a flourishing of artistic expression (Dagon Nat Shin, 1978). Artisans from diverse backgrounds, including Mon, Indian, and Pyu lineages, contributed to creating stupas, pagodas, and other religious structures adorned with elaborate carvings and sculptures (Dagon Nat Shin, 1978). This cultural exchange influenced the formation and refinement of Myanmar's traditional arts, blending regional influences into a unique Burmese style.

Evidence of early Burmese art and craftsmanship also appears in artifacts from the Pyu period, such as stone statues and metalwork found in the ancient city of Srikshetra (Dagon Nat Shin, 1978). During the Ava period, the arts further developed, showcasing Myanmar's distinctive aesthetics and cultural influences from the Mon and Indian communities (Dagon Nat Shin, 1978). This evolution contributed to the

prominence and preservation of the "Ten Flowers," which remain central to Myanmar's cultural identity today.

3.2 Ten Flowers of Myanmar

The traditional arts and crafts of Myanmar, collectively known as the "Ten Flowers" or "Ten Traditional Arts" (Myanmar: "Ten Flowers" of Myanmar), represent a variety of skilled trades that have been passed down through generations. Each of these "flowers" focuses on a specific craft, showcasing Myanmar's rich cultural heritage and artisans' skills.

- (i) **Panchi (Painting):** Panchi involves painting images of living beings, objects, and scenes. Artists use various colors to depict animals, people, and everyday scenes, often focusing on expressive and detailed representations (Dagon Nat Shin, 1978).
- (ii) **Punpu (Sculpture):** This art form involves crafting intricate sculptures from wood, stone, or plaster. Many works depict humans, animals, or floral designs, and Myanmar's traditional sculpture dates back to before the Bagan period. Examples of this craft can be seen at Shwezigone Pagoda and in historic monasteries like Shwe-Inpin and Bargayar in Mandalay (Dagon Nat Shin, 1978).
- (iii) **Panbe (Blacksmithing):** Myanmar's blacksmithing, which began during the Bagan period, involves heating and shaping iron into practical items like oxcart axles, scissors, knives, and farming tools. Blacksmiths in the Inlay region historically excelled in metalwork, especially during the Yadanapon era (Dagon Nat Shin, 1978).
- (iv) **Panyun (Lacquerware):** Panyun artisans craft lacquerware items from bamboo and wood, coating them in black lacquer. Items include bowls, cups, containers, and decorative boxes, often featuring intricate designs. This craft, especially prominent in Bagan, is a cultural emblem of Myanmar (Dagon Nat Shin, 1978).
- (v) **Panpoot (Wood Turning):** This craft uses a lathe to create wooden utensils and decorative items like bedposts, railings, and chair legs. Artisans use various wood types to fashion these intricate designs (Dagon Nat Shin, 1978).
- (vi) **Panyan (Masonry):** Panyan refers to construction using stone, brick, or concrete, with traditional masons building temples, pagodas, and bridges. This

architectural skill is evident in Myanmar's historic pagodas and religious structures (Dagon Nat Shin, 1978).

(vii) Pantaut (Stucco Work): This involves creating ornate floral patterns and mythical creatures in stucco, which decorates temples and religious buildings. Craftspeople carve intricate motifs of lions, dragons, and flowers in relief (Dagon Nat Shin, 1978).

(viii) Pantamaut (Stone Carving): Stone carving is primarily associated with creating Buddha statues, religious markers, and traditional mortars and pestles. Myanmar artisans are especially known for producing Buddha images and sacred symbols (Dagon Nat Shin, 1978).

(ix) Patain (Gold and Silversmithing): Skilled silversmiths craft items from gold and silver, such as ceremonial bowls, cups, plates, and belts, often engraved with intricate designs. This art reflects wealth and religious significance, especially in ceremonial contexts (Dagon Nat Shin, 1978).

(x) Pante (Bronze and Copper Work): Pante focuses on producing items from copper, bronze, or brass, including bells, gongs, and traditional vessels. Artisans in this field often work on religious items and ceremonial objects (Dagon Nat Shin, 1978).

These ten crafts reflect Myanmar's cultural heritage and serve as a testament to its artisans' historical skills, emphasizing cultural preservation and economic contribution to local communities. The combination of Panpu and Panpoot will be described as wooden handicraft in this study and the current status of wooden handicraft enterprises and factors influencing these enterprises upgrading in the study area will be explored in this study.

3.3 Status of Small and Medium Enterprises in Myanmar

The role of SMEs in Myanmar is crucial to the country's economy, as SMEs make up over 90% of all businesses and provide significant employment opportunities, particularly in rural areas (Asian Development Bank, 2021). Small and Medium Enterprises (SMEs) significantly contribute to the economic growth of developing countries (Kayanula and Quartey, 2000). In Myanmar, SMEs serve as key drivers of growth, making up over 99.4 percent of all businesses, with approximately 130,000 formally registered and around 620,000 estimated to be unregistered (United Nations, 2013). Agriculture is a crucial component of Myanmar's economy, providing income

for 70 percent of the population and accounting for about 32 percent of the GDP, over 60 percent of employment, and 20 percent of exports (OECD, 2014b).

According to data from the Ministry of National Planning and Economic Development, Myanmar had 55,523 enterprises in 1999, with small and medium-sized enterprises constituting 99.2 percent of this total. The count of firms registered as private industrial entities has consistently risen, from 28,848 in the fiscal year 1991 to 41,475 in 2005 (Myint, 2006). From 2002 to 2003, 89.6 percent of firms were privately owned, 8.6 percent were state-owned, and 1.6 percent were cooperatives (Myint, 2006). According to report of Ministry of Information indicated that the count of registered private industrial businesses reached 43,374 by the conclusion of 2006 (Kyaw, 2008).

On April 9, 2015, the government enacted the Small and Medium-Sized Enterprises (SME) Development Law, referred to as the SME Law. The SME Master Plan for 2020–2030 has been formulated based on seven principal target areas. The SME Law defines "small enterprises" as businesses with capital between MMK 50 million and MMK 500 million or those employing 30 to 300 individuals. Medium-sized enterprises are characterized by having capital ranging from MMK 50 million to MMK 1 billion or employing between 60 and 600 individuals. The overall SMEs Development Policy targets seven main areas of focus:

- (i) Human resources
- (ii) Technology advancement and innovation
- (iii) Financial resources
- (iv) Infrastructure growth
- (v) Market accessibility
- (vi) Fair taxation and procedural systems
- (vii) Supportive business environment.

Table 3.1 Small and Medium Enterprise Definitions in Myanmar

Sr.	Category	Small		Medium	
		Employees	Capital (millions kyat)	Employees	Capital (millions kyat)
1.	Manufacturing, mining, construction	Up to 50	Up to 500	51-300	501-1000
2.	Labour intensive manufacturing	Up to 300	Up to 500	301-600	501-1000
3.	Wholesale business	Up to 30	Up to 100	31-60	101-300
4.	Retail business	Up to 30	Up to 50	31-60	51-100
5.	Service business	Up to 30	Up to 100	31-60	101-200
6.	Others	Up to 30	Up to 50	31-60	51-100

Source: Small and Medium Development Law of Myanmar (2015)

Despite their significant role, these enterprises encounter substantial challenges, such as restricted access to financing, inadequate infrastructure, and a shortage of skilled workers. Additionally, political instability and economic sanctions have further impeded their growth, making it difficult for SMEs to expand or enhance productivity (World Bank, 2020). Consequently, SMEs in Myanmar often struggle to compete domestically and internationally, reducing their potential to drive economic development.

To address these issues, the Myanmar government has implemented several initiatives aimed at supporting SME growth, such as the SME Development Law and access to microloans through the Myanmar Economic Bank (Ministry of Planning, Finance, and Industry, 2021). International organizations, like the International Finance Corporation (IFC), have also contributed by offering technical assistance and financial support to strengthen Myanmar's SME sector (IFC, 2019). However, more targeted support, especially in improving digital infrastructure and facilitating access to global markets, is necessary to help these enterprises become more competitive and resilient against external shocks.

3.4 Overview of Wooden Handicraft Enterprises in Myanmar

Wooden handicraft enterprises in Myanmar have deep historical roots, reflecting the rich cultural heritage of the country. Traditional wooden crafts are well-respected in Myanmar and have been part of the local lifestyle and economy for centuries. These enterprises create a range of items, from religious artifacts and sculptures to furniture and household decor, often showcasing the distinctive styles and craftsmanship of various ethnic groups in Myanmar (Aye, 2018). The crafting process typically relies on locally sourced timber, including teak and rosewood, known for their durability and beauty. Wooden handicrafts have not only cultural significance but also economic importance, as they contribute to the income of many families, particularly in rural areas where alternative employment options are limited (Asian Development Bank, 2021).

In recent years, Myanmar's wooden handicraft enterprises have faced significant challenges, including deforestation and access to sustainable timber resources, which threaten the long-term viability of the industry. The scarcity of high-quality raw materials, due in part to illegal logging, has led to increased costs and limited availability of resources for these businesses (World Wildlife Fund, 2020). Additionally, competition from imported goods, often sold at lower prices, has impacted local demand for Myanmar-made handicrafts. As a result, many artisans have had to adapt their designs and materials to stay competitive, which has led to some loss of traditional craftsmanship and techniques that have been passed down through generations.

Despite these challenges, the Myanmar government and international organizations have shown support for reviving and sustaining wooden handicraft enterprises. Programs that promote eco-friendly practices and provide artisans with market access, both domestically and internationally, have emerged to support the growth of this sector (UNIDO, 2021). Such initiatives also aim to enhance artisans' skills, integrate new technologies, and promote sustainable sourcing of materials, ensuring that Myanmar's wooden handicrafts can continue to thrive. Expanding access to foreign markets, especially through e-commerce, presents an opportunity to increase demand for Myanmar's handicrafts and further stimulate the industry's growth.

CHAPTER IV

SURVEY ANALYSIS

4.1 Profile of Survey Area

This study was conducted in Bago Township, situated in Bago District within the Bago Region of Myanmar. Positioned at 17° 19' north latitude and 96° 29' east longitude, Bago Township serves as the capital of Bago Region and has historically been the capital of various Mon and Burmese kingdoms. It borders Yangon Region and lies along the eastern slopes of the heavily forested Bago Yoma mountains. Although the Mon people are now a minority in the area, Bago Township continues to hold cultural significance for them.

According to the Myanmar Population and Housing Census (2014), the township comprises 34 wards and 67 village tracts. Out of them, Mazin Ward is well-known for its wooden handicraft production based on traditional Panpu and Panpoot. It is one of the major production area of wooden handicraft in Myanmar and it can be said that the art of Panpoot from Bago Township is one of the best in Myanmar. These craftsmanship of traditional arts and crafts were dispersed to this area from Ywarlot Village, Chaung Sone Township, Mon State, historically famous area of Panpoot art. Most of the residents from Ywarlot Village are Mon people and the area is flourished with craftsmanship.

The wooden handicrafts from Bago Township became increasingly popular alongside the "Visit Myanmar Year 1996" tourism campaign, which was launched by the Myanmar government to promote the country's cultural heritage, historical sites, and scenic beauty to international tourists. Bago Township, being one of the key tourist destinations, saw a rise in the demand for its intricate wooden handicrafts, which showcased local craftsmanship and traditional artistry, contributing to the region's growing visibility on the global tourism map.

Wood craving was mainly conducted with traditional materials and craftmans had to put more efforts to make products. Since 1996, some mechnary and equipments has been applied together with traditional materials and the work has become smoother and the sculpture has become better.

Regarding with raw material, the usage of wood has been changed overtime. Up to last 10 years ago, Teak (*Tectona grandis* L.f), Padauk (*Pterocarpus macrocarpus* Kurz.), Rosewood (*Dalbergia oliveri* Gamble.), Thinwin (*Mellittia pendula* Benth.), Yintike (*Dalbergia cultrate* Grah.), Yamane (*Gmelina arborea* G.), Binga (*Mytragyna rotundifolia* O.Ktze.) were mainly used for making wooding handicrafts. These hardwood species was somewhat easy to be available in the study area during these period. Foreign buyers also love to buy the products made of these hardwood species. Nowadays, Kokko (*Albizzia lebbek*) becomes major tree species used for their production due to scarcity and higher price of hardwood species, its easy availability and cheap price. But, foreign buyers do not prefer products made of Kokko (*Albizzia lebbek*).

In previous time, the products were distributed to Yangon, Mandalay, Mawlamying and border area of Myanmar, like Tachileik, Shweli, Myawaddy. Major foreign buyers were from Thailand, China and Japan. Foreign visitors mainly bought home decoration items and in the past, Chinese investors used to purchase wooden handicraft products related to home decoration and then shipped the products to China.

Now, the products are mainly distributed to Yangon, Mandalay, Mawlamying. After Covid-19 period, the market access of the product has been decreasing. Only few enterprises export the products especially tablewares and kitchenwares to Japan and some europe countries. Most of the enterprises are now depending on local market for their products. The sale volume to both foreign and local market was apprently decreased also. Due to limited market access and decreasing demand, some wooden handicraft enterprises and artisans left the indusrty and revitalization and upgrading of these enterprise are needed for local economy development and job opportunity.

4.2 Wooden Handicraft Products from Bago Township

Wooden handicrafts from Bago Township are known for their traditional craftsmanship, intricate designs, and cultural significance. Artisans in Bago skillfully carve wood into a variety of decorative and functional items and it can be mainly classified into three categories which are described as follows,

- (i) **Wooden figures, statues and other religious items:** This includes Buddha statues, mythological figures, and animals, often carved with fine details. Buddha statues, for instance, are crafted with particular care to capture the

expression of serenity and compassion, which holds cultural and spiritual importance for many in Myanmar.

(ii) Household items: Tableware, kitchenware are mainly produced. Wooden bowls, trays, and boxes are popular, often decorated with traditional Burmese patterns. In previous time, these items are commonly made from teak wood, prized for its durability and resistance to pests, making them not only beautiful but practical as well.

(iii) Traditional Ornaments and Souvenirs: Small decorative items, like miniature boats, elephants, and pagodas, are crafted as souvenirs. These often feature intricate designs and represent symbols of Myanmar's heritage, making them highly appreciated by tourists.

The detailed list of wooden handicraft in the study area, Bago Township was presented in Appendix-I.

4.3 Survey Design

The survey was designed to gain an in-depth understanding of the small wooden handicraft enterprises in Bago Township. The objectives of the study were fulfilled by

- (i) Analysis of a structured questionnaire survey results which was collected from 40 enterprises out of nearly 100 wooden handicraft enterprises and
- (ii) Conducting Focus Group Discussion (FGD) to identify factors influencing to upgrade the enterprises.

The structured questionnaire survey results was analysed by Descriptive Statistics and influencing factors for wooden handicraft enterprises was examined by structural analysis and MicMac Method.

4.3.1 Data Collection by Questionnaire Survey

In this study, population represents total number of wooden handicraft enterprises in the study area and sample means total number of data collected enterprises. Simple random sampling was used to choose sample size from total population. Nearly 40 % of population was intended for sample size. According to Krejcie & Morgan, 1970, a sample size representing at least 30-40% of the total population is generally considered sufficient in small populations, as it provides a

balance between accuracy and feasibility. The field survey was conducted during August 2024.

Primary data collection involved the use of a structured questionnaire, which was distributed to a sample of 40 respondents out of nearly 100 population of wooden handicraft enterprises. The questionnaire was designed to know general information about enterprise owner, their products and usage of raw material, application of technology and machine, their employee characteristics, credit access, perception on obstacles in market access, their state of innovation, general obstacles in their enterprises and their view on cooperation with institutions. The questionnaire is attached in Appendix-II. Descriptive statistics was used for analyzing quantitative data.

4.3.2 Identification of Factors Influencing Wooden Handicraft Enterprises Upgrading

To examine the factors influencing the upgrading of wooden handicraft enterprises, structural analysis and the MicMac method (Matrix Cross-Reference Multiplication Applied to a Classification) was used. As the growth of these enterprises is shaped by multiple interrelated factors, clarification of the key factors and influencing relationships that affect wooden handicraft enterprise upgrading is required. Consequently, prospective structural analysis and the MicMac method were chosen for their ability to assess complex interdependencies and provide a structured approach to analyzing both present and future factors impacting enterprise development (Godet & Durance, 2011).

In 1971, Michel Godet developed the prospective structural analysis and the MicMac method to identify essential factors within a system by analyzing a matrix that displays connections between those factors (Nader Zali et al., 2015). Structural analysis is useful for revealing the interdependencies between drivers within a study system, focusing on mutual effects rather than direct cause-and-effect relationships (Nazarko et al., 2017; Ambrosio-Albala et al., 2009). Through the use of matrices and visual charts, prospective structural analysis helps illustrate the intricate web of relationships among factors, ultimately highlighting the influencing variables.

The prospective structural analysis and MicMac method are adaptable tools used extensively in fields such as business, urban planning, and social sciences. These methods are applied for various purposes, such as determining essential factors for urban growth (Nader Zali et al., 2015), creating rural strategies based on socioeconomic

elements (Ambrosio-Albala et al., 2009), and analyzing critical drivers in technology and sustainable supply chains (Nazarko et al., 2017; Dubey et al., 2017).

The structural analysis and MicMac method involve three main stages:

- (i) Stage 1: Collecting a list of relevant factors
- (ii) Stage 2: Defining relationships between factors
- (iii) Stage 3: Identifying the key factors.

(i) Collecting the List of Factors

For this study, collection of list of factors was based on key informant interviews, questionnaire survey results, focus group discussions and literature reviews of previous similar studies. A group of 12 variables, as presented in Table 4.1, was analyzed to accurately identify and categorize these influencing factors impacting the enterprise development system.

Table 4.1 List of Factors Affecting Wooden Handicraft Enterprises Upgrading

Factor	Variables	Label	Description
Internal	Entrepreneur	EN	Education, work experience, personal network, motivation, decision-making, leadership skills
	Employee	EM	Education, working skills, working condition, gender, salary, turnover, labor market
	Technology and equipment	TE	Quality, number of machines, machine application, productivity, investment, depreciation, technology transfer
	Location	LO	Preferable accessing of material, cheap labor, transportation cost, market access, cooperation with households, infrastructure
	Product	PR	Design, quality, catalog, price, quality control, product warranty
	Marketing	MA	Trade fairs, certificate, social media, showroom, website development, sale activities, marketing expenses, customer relations, market access

Table 4.1 Continued

Factor	Variables	Label	Description
Internal	Innovation	UB	New designs, new material, new products, new market, organizational innovation, new machinery
	Capital	CA	Cash accounts, financial investment, borrowing capacity, loan conditions
	Business performance	BP	Revenue, net profit, debt, market expansion
External	Raw material supply	RM	Quality, price, supply, transportation cost, competition, material processing
	Households	HH	Collaboration, cost structure, qualified labor, training, completed orders, income, technology, and machine application
	Institutional conditions	IC	Financial support, preferable policies, technology transfer, training services

Source: (Heip, 2021)

(ii) Specifying the Relations between Factors

Regarding specification of relations between the factors, Focus Group Discussion (FGD) was done with seven participants including two officials from Forest Department and five wooden handicraft entrepreneurs. On the matrix of selected 12 variables, the influence of each pair of variables were rated to complete the matrix. Each row and column's total score means the overall influence of each factors across the entire system. To determine the influence level between each pair of variables, the participants were asked to answer and discuss the following questions:

Is there a direct relationship between variable i and variable j?

If there is no relationship, assign a zero and explain why.

If there is a relationship, participants should discuss the nature of the influence and rate its strength using the following scale:

- (i) 0: Factor i has no influence on factor j
- (ii) 1: Factor i has a limited influence on factor j
- (iii) 2: Factor i has a strong influence on factor j
- (iv) 3: Factor i has a crucial influence on factor j (Heip, 2021).

(iii) Identifying Key Factors

MicMac software is utilized to categorize elements according to their connectivity and the strength of these associations. Ambrosio-Albala et al. (2009) indicate that the program is intended to facilitate group reflection and was employed in this study to ascertain variables affecting enterprise development. This instrument assesses the extent of influence and dependence among variables in a system using a matrix framework (Pablo J et al., 2014). The row totals in the matrix reflect the degree of influence each variable exerts on the system, whilst the column totals represent the extent of dependency each variable has on others (Heip, 2021). One of the key advantages of this method is its ability to map out the network of connections between variables and visually highlight the most important factors through charts (Heip, 2021). The investigation delineates seven pivotal aspects that affect the prospective expansion of wooden handicraft enterprises: key, aim, result, determinant, external, regulatory, and autonomous factors (Ambrosio-Albala et al., 2009; Godet & Durance, 2011; Nazarko et al., 2017). Central factors exert considerable influence and dependency on other elements within the system; thus, alterations to these components can profoundly affect the entire system due to their inherent instability. Aim factors, while significantly reliant on other elements, exert minimal impact independently, whereas result factors, also dependent, are more commonly affected than affecting, as their variations are frequently prompted by alterations in key and determinant variables. Determinant factors are especially significant due to their substantial impact and relative autonomy from other variables. External factors exert a moderate influence and are predominantly independent, while autonomous factors demonstrate low influence or reliance (Ambrosio-Albala et al., 2009; Godet and Durance, 2011; Nazarko et al., 2017; Heip, 2021).

4.4 Analysis of Survey Results

As this research has two objectives, the results of survey analysis are explained with two sections,

- (i) Current status of small-scale wooden handicraft enterprises in the study area,
- (ii) Key factors affecting small-scale wooden handicraft enterprises upgrading.

4.4.1 Current Status of Small-Scale Wooden Handicraft Enterprises in Bago Township

Regarding current status of small-scale wooden handicraft enterprises in the study area, the questionnaire survey results of general information about the enterprise owners, their products, and the use of raw materials, as well as their application of technology and machinery are presented. Also, the perceptions of respondents' barriers to market access, their level of innovation, overall challenges faced by their enterprises, and their views on collaborating with institutions are explained.

4.4.1.1 Demographic, Operational and Market Characteristics of Respondents

The demographic characteristics of the respondents is crucial in understanding the sample population and contextualizing the study's findings. The tables below summarize demographic operational, and market characteristics of respondents involved in the wooden handicraft industry.

Table 4.2 Demographic Characteristics of Respondents

No	Items	Description	No. of Respondents	Percentage (%)
1.	Gender	Male	32	80.0
		Female	8	20.0
2.	Age	30-40 yrs	7	17.5
		41-50 yrs	25	62.5
		51-60 yrs	8	20.0
3.	Work Experience of Owner	10 - 15 yrs	8	20.0
		16 – 20 yrs	8	20.0
		21 – 25 yrs	8	20.0
		26 – 30 yrs	16	40.0
4.	Types of Handicraft	Pan Pu	8	20.0
		Pan Poot	8	20.0
		Pan Pu and Pan Poot	24	60.0

Source: Survey data (2024)

Based on the Table (4.2) about demographic characteristics of respondents involved in the wooden handicraft industry, it was found that the sample comprises predominantly male respondents (80%), with a majority aged between 41-50 years (62.5%). Many owners have substantial experience, with 40% possessing 26-30 years in the industry. Most businesses (60%) produce both “Pan Pu” and “Pan Poot” types of handicrafts, showing a diverse product range.

Table 4.3 Operational Characteristics of Respondents

No	Items	Description	No. of Respondents	Percentage (%)
1.	Usage of Tree species last 10 years ago	Teak (<i>Tectona grandis</i> L.f)	4	10
		Thinwin (<i>Mellittia pendula</i> Benth.)	8	20
		Yintike (<i>Dalbergia cultrate</i> Grah.)	6	15
		Yamane (<i>Gmelina arborea</i> G.)	3	8
		Sanse (<i>Linociera terniflora</i> Wall.)	1	3
		Thitse (<i>Melanorrhoea usitata</i> Wall.)	2	5
		Padauk (<i>Pterocarpus macrocarpus</i> Kurz.)	33	83
		Binga (<i>Mytragyna rotundifolia</i> O.Ktze.)	10	25
		Tamalan (<i>Dalbergia oliveri</i> Gamble.)	19	48
		Kokko (<i>Albizzia lebbek</i>)	2	5
		2.	Current usage of tree species for production	Teak (<i>Tectona grandis</i> L.f)
Thinwin (<i>Mellittia pendula</i> Benth.)	14			35
Padauk (<i>Pterocarpus macrocarpus</i> Kurz.)	3			8
Binga (<i>Mytragyna rotundifolia</i> O.Ktze.)	7			18
Kokko (<i>Albizzia lebbek</i>)	35			88
Aurisha (<i>Acacia mangium</i>)	14			35
Rubber (<i>Hevea brasiliensis</i> (Willd. Ex A.Juss)Muell)	7			18
Euclyptus (<i>Eucalyptus spp.</i>)	7			18
Taukkyan (<i>Terminalia tomentosa</i> W.& A)	7			18
Thate (<i>Protium serratum</i> Engler.)	7			18

Source: Survey data (2024)

The operational characteristics of respondents related to usage of raw material is presented in Table (4.3). Notably, Padauk (*Pterocarpus macrocarpus* Kurz.), Binga (*Mytragyna rotundifolia* O.Ktze.), and Tamalan (*Dalbergia oliveri* Gamble.) were the main tree species used a decade ago, whereas there has been a shift towards Kokko (*Albizzia lebbek*) (88%) and other species like Thinwin (*Mellittia pendula* Benth.) (35%) and Aurisha (*Acacia mangium*) (35%) in current production. This shift in raw materials reflects changes in availability or cost pressures in sourcing traditional wood species.

Table 4.4 Conditions of Credit Access of Respondents

No	Items	Description	No. of Respondents	Percentage (%)
1.	Credit Access	Yes	2	5
		No	38	95
2.	Obstacles in accessing credit	Mortgaged property	38	95
		Interest rates	0	0
		Relation with banks	13	33
		Not lending required amount	8	20

Source: Survey data (2024)

The condition of credit access and obstacles are shown in Table (4.4). According to it, access to credit appears limited, as only 5% of respondents reported having credit access, with 95% relying on mortgaged property. Despite a significant share (33%) having bank relations, many struggle to secure necessary loan amounts.

Table 4.5 Market Characteristics of Respondents

No	Items	Description	No. of Respondents	Percentage (%)
1.	Domestic market share at 5 year ago	0%	1	2
		1-20%	7	18
		21-40%	20	50
		41-60%	-	0
		61-80%	-	0
		81-100%	12	30
2.	Current domestic market share	0%	1	2
		1-20%	7	18
		21-40%	-	0
		41-60%	-	0
		61-80%	-	0
		81-100%	32	80
3.	International market share at 5 year ago	0%	12	30
		1-20%	-	0
		21-40%	-	0
		41-60%	20	50
		61-80%	7	18
		81-100%	1	2
4.	Current International market share	0%	32	80
		1-20%	-	0
		21-40%	-	0
		41-60%	-	0
		61-80%	7	18
		81-100%	1	2
5.	Joining Local Exhibition	Yes	25	63
		No	15	38
6.	Joining International Exhibition	Yes	12	30
		No	28	70

Source: Survey data (2024)

The market characteristics of wooden handicraft enterprises in the study area are described in Table (4.5). In terms of market performance, there has been a noticeable shift towards the domestic market over the past five years, with 80% now holding an 81-100% share domestically, compared to only 30% five years ago. However, international market presence has declined, with 80% of respondents currently reporting no international sales compared to only 30% five years ago. Additionally, 63% participate in local exhibitions, but only 30% engage in international ones, suggesting a focus on domestic rather than international marketing efforts.

Based on the results, the area of increasing credit access, enhancing international market reach and sustainable wood sourcing should be enhancing. Given the low credit access (5%) and high dependency on mortgaged property (95%), financial institutions or industry associations could consider introducing tailored financial products for handicraft enterprises. Improving credit terms and providing flexible loan options could help enterprises expand production and diversify products.

With a significant drop in international market share, entrepreneurs might benefit from targeted export support programs. This could include subsidies for international exhibitions or training on global market standards to improve their competitiveness abroad.

The shift to using alternative wood species like Kokko (*Albizia lebbek*) and Thinwin (*Mellittia pendula* Benth.) suggests supply challenges with traditional species. Implementing sustainable sourcing practices and exploring certified forestry partnerships could help maintain quality while adapting to material changes.

4.4.1.2 Reliability Analysis

Fen and Randall (2018) state that reliability coefficients vary from 0 to 1, with 1 signifying optimal dependability and 0 denoting minimal trustworthiness. Table (4.6) presents an instance of a Cronbach's alpha reliability coefficient (Hari et al., 2010).

Table 4.6 Reliability Statistics

No.	Cronbach's Alpha Score	Reliability Level
1	0.0-0.20	Less Reliable
2	>0.20-0.40	Rather Reliable
3	>0.40-0.60	Quite Reliable
4	>0.60-0.80	Reliable
5	>0.80-1.00	Very Reliable

Source: (Hari et al, 2010)

Table 4.7 Reliability Test for Construct Variables

No.	Reliability Statistics		
	Factors	Cronbach's Alpha	Reliability Level
1.	Obstacles in Accessing Market	0.75	Reliable
2.	Issues in Innovation	0.73	Reliable
3.	Factor to Upgrade Cooperation	0.91	Very Reliable
4.	Current Obstacles of Enterprises	0.73	Reliable

Source: Survey data (2024)

The Cronbach's Alpha values in Table 4.7 demonstrate the reliability of each component in the study, assessing the consistency of items within each factor in representing a singular concept or construct. The items under all the factors show reliable consistency according to classification by Hari et al, 2010.

4.4.1.3 Obstacles in Accessing Market

Obstacles in accessing market refer to the challenges or barriers that businesses or individuals face when trying to enter, expand, or compete in a specific market. These obstacles can be varied and may include economic, regulatory, competitive, and even cultural factors that make it difficult for new or existing businesses to establish a foothold or grow their market share. Regarding with this, perceptions of respondents on factors relating their current obstacles in market access, like lack of capital, insufficient information of market, inadequate innovation in manufacturing, high transportation cost and support for government and institutions were assessed and the results are shown in below Table (4.8).

Table 4.8 Perception of Respondents on Obstacles in Accessing Market

No.	Economic Factors	Mean	Standard Deviation
1	Lack of Capital	4.4	1.03
2	Lack of Market Information	4.5	0.88
3	Poor Innovation in Production	2.4	0.76
4	High Transportation Cost	3.6	0.99
5	Poor Support from Government Institutions	4.2	1.37
	Overall Mean	3.8	

Source: Survey data (2024)

According to Table (4.8), the findings indicate that respondents perceive significant economic obstacles in accessing markets, with “Lack of Market Information” (M = 4.5, SD = 0.88) rated as the biggest barrier. This high mean score reflects that limited access to timely and relevant market data significantly impacts respondents’ ability to compete or meet demand effectively, underlining the importance of information in understanding consumer preferences and competitor activities. Following closely, “Lack of Capital” (M = 4.38, SD = 1.03) and “Poor Support from Government Institutions” (M = 4.2, SD = 1.37) are also seen as big obstacles. These scores highlight concerns around the limited financial resources and insufficient institutional support available for the wooden handicraft enterprises growth and market

engagement. The relatively high standard deviation for government support suggests differing perceptions among respondents, possibly due to variations in local policies or access to institutional resources.

On the other hand, “Poor Innovation in Production” ($M = 2.4$, $SD = 0.76$) is rated as a smaller obstacle, indicating that respondents may feel their current production methods are adequate or that innovation is not the primary challenge in accessing markets. The lower mean score here suggests that production issues are not as pressing as financial, informational, and logistical barriers. Meanwhile, “High Transportation Cost” ($M = 3.6$, $SD = 0.99$) is viewed as a moderate obstacle, implying that transportation expenses moderately hinder market accessibility. The overall mean score ($M = 3.8$) reflects a generally high perception of obstacles, with respondents viewing lack of capital, market information, and government support as the most substantial barriers to market entry and growth.

4.4.1.4 Issues Affecting Innovation in Enterprises

Innovation is essential for enterprises to remain competitive and grow in dynamic markets. Several issues can hinder an organization's ability to innovate effectively. Innovation frequently necessitates substantial investment in research, development, technology, and human capital. Enterprises with limited budgets may struggle to fund innovative projects, which can result in slower growth or limited product development. Having the right people is crucial for innovation. A shortage of skilled employees in areas like R&D, digital technology, and marketing can limit an organization's ability to innovate. Innovations need to align with market needs to be successful. If an enterprise lacks research into customer preferences, competitors, or industry trends, it may develop products that do not resonate with its target audience. Inadequate access to modern technology can limit an enterprise's innovation potential. Organizations with outdated systems may find it challenging to implement digital solutions, develop data-driven insights, or keep up with competitors. By addressing these issues, enterprises can create an environment that is more conducive to innovation, enabling them to stay competitive and meet evolving market demands.

Table 4.9 Perception of Respondents on Issues in Innovation

No.	Innovation in Enterprises	Mean	Standard Deviation
1	Finance	3.6	1.15
2	Capacity and Skills of Employee	4.2	0.41
3	Competitive Market	3.0	0.64
4	Government/Institutional Support	3.8	0.49
5	Technology	4.0	0.64
	Overall Mean	3.7	

Source: Survey data (2024)

The perceptions of respondents related to issues in innovation are shown in Table (4.9). The findings reveal that respondents see several factors as influential in fostering innovation within enterprises, with “Capacity and Skills of Employee” (M = 4.2, SD = 0.41) rated as the biggest factor. This high mean suggests that respondents consider employee expertise and skill development essential to driving innovative processes and sustaining competitiveness. The low standard deviation also implies consistent agreement among respondents about the importance of a skilled workforce in enabling innovation. “Technology” (M = 4.0, SD = 0.64) is rated as another significant factor, indicating a strong perception that technological advancements contribute greatly to innovation, likely by enabling improved efficiency and the development of new products or services.

On the other hand, “Finance” (M = 3.6, SD = 1.15) and “Government/Institutional Support” (M = 3.8, SD = 0.49) are rated slightly lower, showing that while they are still seen as important, they are perceived as less central than employee skills and technology. The relatively high standard deviation for finance indicates some variability in views, suggesting that access to finance may be a more significant challenge for some respondents than others. “Competitive Market” (M = 3.0, SD = 0.64) is rated as a medium factor, implying that while competition influences innovation, respondents see internal resources, such as employee skills and technology, as more crucial drivers. The overall mean score (M = 3.7) reflects a generally high perception of these factors’ importance, emphasizing the role of skilled employees, technology, and moderate support in enhancing innovation.

Given the importance of employee capacity, enterprises should prioritize training and development programs to strengthen their workforce. Moreover, leveraging available government resources, grants, or partnerships can provide the necessary support for innovation efforts and investing in the latest technologies can improve productivity and support innovative initiatives, aligning with respondents' emphasis on its importance.

4.4.1.5 Factors to Upgrade Cooperation

The Table (4.10) summarizes respondents' perceptions regarding factors that influence the upgrade of cooperation in enterprises. The factors are evaluated based on mean scores and standard deviations (SD).

Table 4.10 Perception of Respondents on Upgrading Cooperation

No.	Factors	Mean	Standard Deviation
1	Financial Support	2.3	0.49
2	Sharing Market Information	3.9	1.18
3	Technical Support	3.6	1.18
4	Training Support	4.2	1.11
5	Raw Material Supply	4.5	1.18
6	Households for Providing Semi-finished Products	2.6	1.49
	Overall Mean	3.5	

Source: Survey data (2024)

Based on the results, respondents generally have positive perceptions of certain factors that could help upgrade cooperation, as indicated by their agreement levels on a 5-point Likert scale. The factor “Raw Material Supply” (M = 4.5, SD = 1.18) received the highest mean score, suggesting strong agreement among respondents on the importance of reliable raw material supply in improving cooperation. Following this, “Training Support” (M = 4.2, SD = 1.11) was also rated highly, indicating that respondents agree on the value of training for fostering cooperative improvements. These high ratings imply that resources and skills development are seen as critical for enhancing collaborative efforts.

On the other hand, lower mean scores were observed for “Financial Support” ($M = 2.3$, $SD = 0.49$) and “Households for Providing Semi-finished Products” ($M = 2.6$, $SD = 1.49$), suggesting that respondents generally disagreed or were neutral about these factors being essential to upgrading cooperation. The lower mean score for financial support could indicate that respondents feel other types of support are more critical to cooperation or that financial assistance alone may not be sufficient. The relatively high standard deviation for the semi-finished products factor suggests a wide variation in opinions, indicating differing experiences or views on its importance. The overall mean score ($M = 3.5$) reflects a neutral to moderately positive perception of the listed factors, with a stronger emphasis on material resources and training as enablers of cooperation improvements.

Enterprises should prioritize securing reliable sources for raw materials, which is seen as vital for enhancing cooperation and production capabilities. Investing in technical assistance can strengthen cooperative efforts, helping enterprises innovate and improve their processes. Establishing platforms for sharing information and knowledge can facilitate better collaboration among enterprises and stakeholders. By addressing these areas, enterprises can foster stronger cooperation, ultimately leading to improved performance and competitiveness in the market.

4.4.1.6 Current Obstacles in Enterprise

The Table (4.11) presents respondents' perceptions of current obstacles they are facing in their enterprises, with a focus on various factors such as capital, market access, employee qualifications, and more.

**Table 4.11 Perception of Respondents on Current Obstacles in Small-Scale
Wooden Handicraft Enterprises**

No.	Statement	Mean	Standard Deviation
1.	Lack of Capital	3.5	0.76
2.	Difficult to Access Market	4.3	0.89
3.	Market Information	3.5	1.04
4.	Low Qualification of Employees	2.6	1.37
5.	Shortage of skillful workers	2.8	0.99
6.	Depending on HHs for Semi-finished Products	2.4	0.81
7.	Depending on Some big Distributers	1.4	0.49
8.	Poor Technology	2.8	1.34
9.	Poor Innovation	2.1	0.76
10.	Uncertain Price of Wood	4.8	0.41
11.	Decreased availability of Wood	4.6	0.5
12.	High Transportation Cost	4.3	0.76
13.	Poor support of Government/Institutions	3.6	0.81
	Overall Mean	3.3	

Source: Survey data (2024)

As per Table (4.11), the findings reveal several prominent obstacles in the small-scale wooden handicraft enterprises in the study area as perceived by respondents. The highest-rated obstacle is the “Uncertain Price of Wood” (M = 4.8, SD = 0.41), indicating a strong consensus that fluctuating wood prices create significant challenges for these enterprises. This volatility likely impacts budgeting, pricing, and overall financial stability, making it difficult for enterprise owners to plan effectively. Similarly, “Decreased Availability of Wood” (M = 4.6, SD = 0.5) is seen as a major constraint, suggesting that raw material scarcity is a pressing concern. Both of these factors highlight the dependency of wooden handicraft enterprises on a stable and accessible wood supply. “Difficult to Access Market” (M = 4.3, SD = 0.89) and “High Transportation Cost” (M = 4.3, SD = 0.76) are also rated as big obstacles, pointing to

issues in reaching customers and managing logistical costs. Together, these factors suggest that external conditions like material availability, market accessibility and logistical expenses significantly hinder the growth of these enterprises.

Conversely, factors like “Depending on Some Big Distributors” ($M = 1.4$, $SD = 0.49$) and “Poor Innovation” ($M = 2.1$, $SD = 0.76$) are rated as smaller obstacles. This indicates that while distribution dependencies and innovation could be relevant, respondents see them as less impactful than supply chain and cost-related issues. “Low Qualification of Employees” ($M = 2.6$, $SD = 1.37$) and “Shortage of Skillful Workers” ($M = 2.8$, $SD = 0.99$) received medium to small ratings, suggesting a need for workforce development but not as an immediate priority. The overall mean score ($M = 3.3$) reflects a moderate perception of obstacles, with the highest concern centered on material and market access issues.

To address these challenges, industry stakeholders should explore partnerships with forestry agencies or sustainable wood suppliers to stabilize wood availability and pricing, potentially reducing dependency on unpredictable supply chains (Kumar & Sharma, 2020). Additionally, developing subsidized transport options or shared logistics solutions may help lower transportation costs. Finally, creating targeted government support programs that improve market access and provide financial aid for small-scale enterprises could alleviate some of the financial and logistical constraints faced by these businesses.

4.4.2 Key Factors Affecting Small Wooden handicraft Enterprise Upgrading

To assess the factors influencing the upgrading of small wooden handicraft enterprises, a direct impact matrix was developed by structural analysis and MicMac Method, comprising 12 rows and 12 columns that represent 12 critical variables in the analysis. The characteristics of the direct impact matrix is shown in Table (4.12). The matrix evaluates the relationships between these variables, highlighting different levels of influence: no influence (35 instances), limited influence (22 instances), strong influence (58 instances), and crucial influence (29 instances). The degree of completion, or the percentage of matrix values differing from zero, is 75.69%. According to Ejdys et al. (2016), this degree of completion significantly exceeds the average acceptable level of approximately 20%, indicating a complex interplay among variables.

Table 4.12 Characteristics of the direct impact matrix

Indicator	Value
Matrix size	12
Number of zeros (no influence)	35
Number of ones (limited influence)	22
Number of twos (strong influence)	58
Number of threes (crucial influence)	29
Degree of completion	75.69%

Source: Survey Data (2024)

The cumulative score for each row indicates the importance of a factor's effect on the overall system regarding direct impact intensity. Table (4.13) illustrates the total strength of direct impacts among the variables in the structural analysis. The findings demonstrate that elements such as entrepreneurs, marketing, location, and raw material supply attained the highest scores in the matrix, indicating their significant influence on other components within the system. Conversely, elements such as household, employee, and institutional circumstances received the lowest scores, signifying their little impact on the other aspects within the system.

The cumulative score for each column indicates the extent to which one element relies on others. Table (4.13) indicates that product and business performance factors are significantly influenced by other elements inside the system, as seen by their highest scores in the columns. Conversely, capital, raw material supply, households, and institutional circumstances received the lowest scores, signifying their relative independence from the other components.

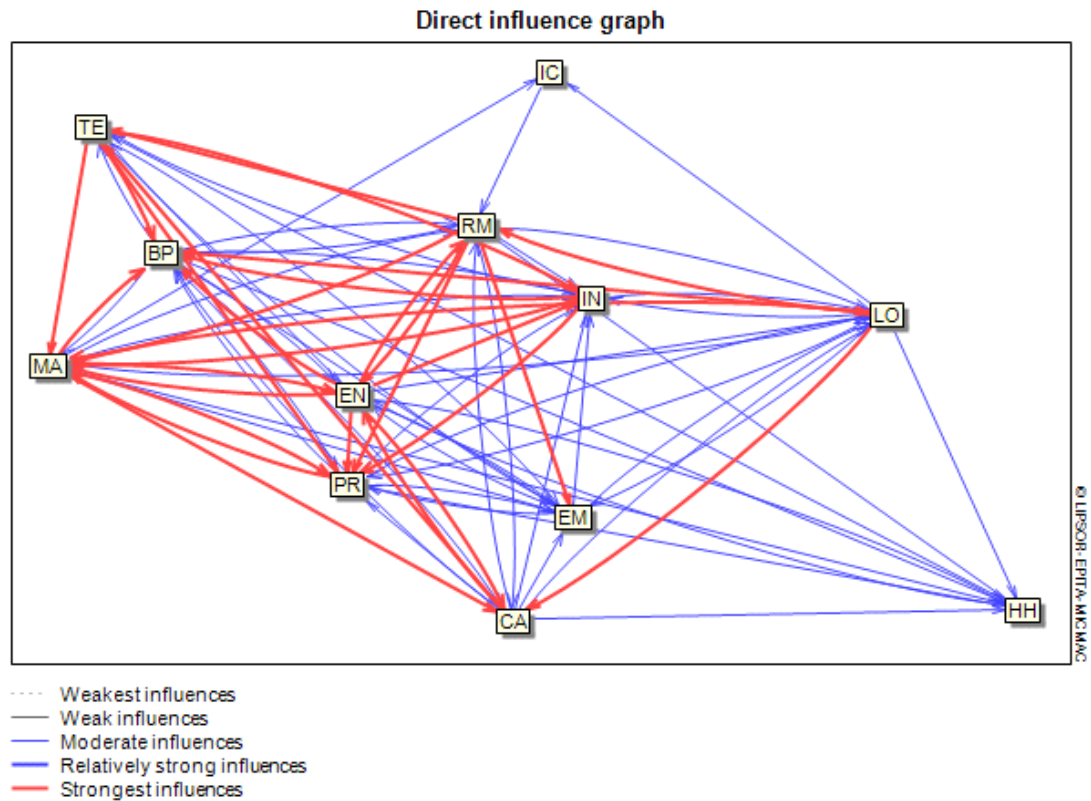
Table 4.13 Total strength of direct impact occurring between structural analysis variables

Short label	Variables	Number of influences	Number of dependencies
EN	Entrepreneur	26	21
EM	Employee	12	22
TE	Technology and equipment	18	20
LO	Location	25	19
PR	Product	13	26
MA	Marketing	26	21
IN	Innovation	17	22
CA	Capital	21	15
BP	Business performance	19	25
RM	Raw material supply	25	15
HH	Households	11	15
IC	Institutional conditions	12	4
	Total	225	225

Source: Survey Data (2024)

Figure (4.1) displays the direct influence graph for the development of small-scale wooden handicraft enterprises, visually representing the relationships and influences between factors. The arrows indicate the extent of direct impact each factor has on others. The results show that factors such as entrepreneurs (EN), raw material supply (RM), marketing (MA), innovation (IN), and product (PR) not only receive numerous arrows from other factors but also direct many arrows to other factors, highlighting their strong interconnections. These factors have a significant influence on the entire system and play a key role in driving the operations of wooden handicraft enterprises. In contrast, handicraft households (HH), enterprise location (LO), and institutional conditions (IC) exert less influence on enterprise development compared to the other factors.

Figure 4.1 Direct Influence Graph for Development of Small-Scale Wooden Handicraft Enterprises



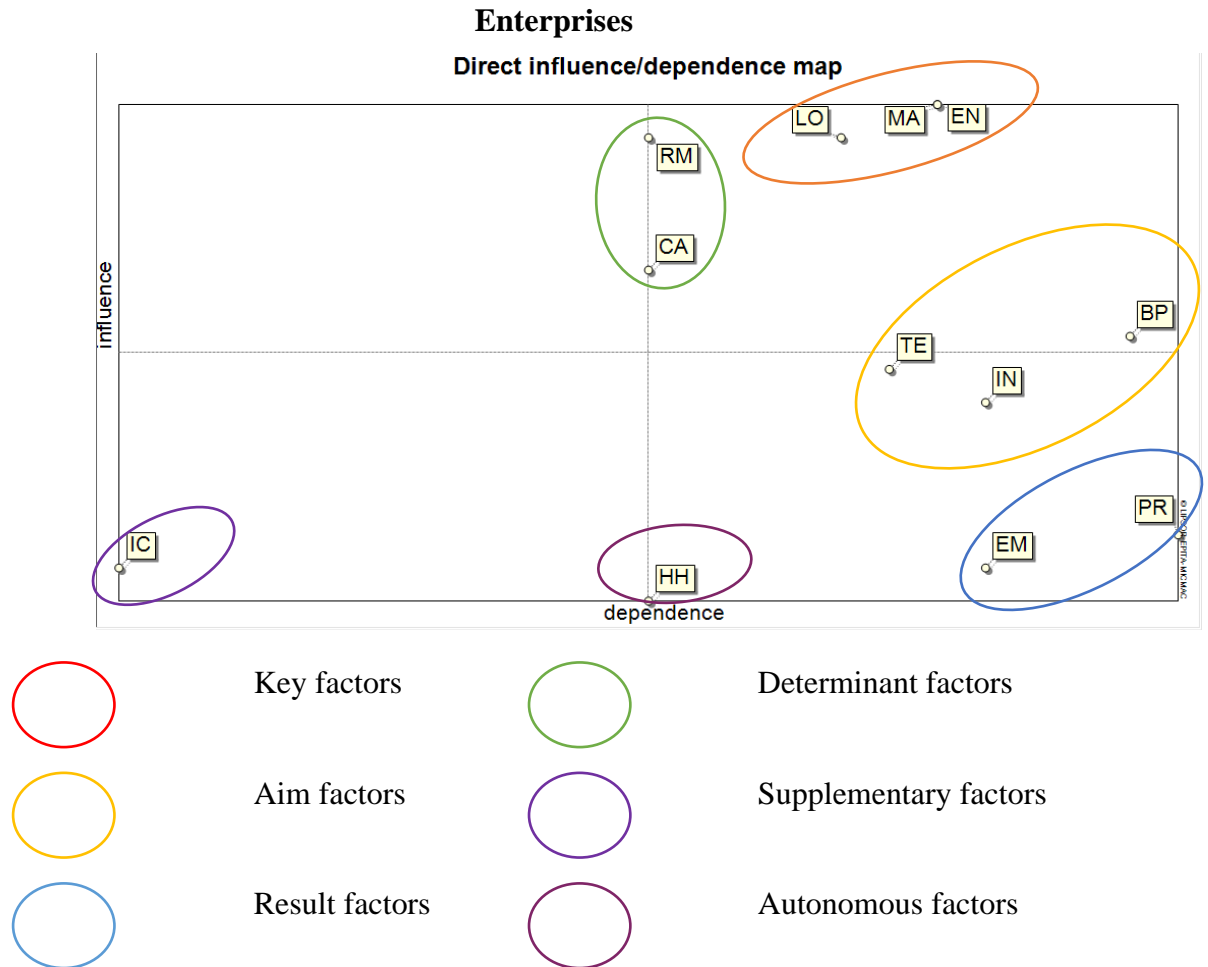
EN: Entrepreneur	IN: Innovation
EM: Employee	CA: Capital
TE: Technology and equipment	BP: Business performance
LO: Location	RM: Raw material
PR: Product	HH: Handicraft households
MA: Marketing	IC: Institutional conditions

Source: Survey Data (2024)

The direct influence-dependence diagram Figure (4.2) illustrates the configuration of the structural analysis variables and their interrelations. The horizontal and vertical axes are calibrated to reflect the increasing intensity of reliance and influence of components, respectively, according to their total scores. The resultant map reveals six factor groups influencing the enhancement of small-scale wooden handicraft enterprises: (1) Key factors: entrepreneur (EN), marketing (MA), and location (LO); (2) Aim factors: technology and equipment (TE), innovation (IN), and business performance (BP); (3) Result factors: employment (EM) and product (PR); (4) Determinant factors: raw material supply (RM) and capital (CA); (5) Supplementary

factors: handicraft household (HH); (6) Autonomous factors: institutional conditions (IC).

Figure 4.2 Direct Influence Map for Development of Wooden Handicraft



EN: Entrepreneur	IN: Innovation
EM: Employee	CA: Capital
TE: Technology and equipment	BP: Business performance
LO: Location	RM: Raw material
PR: Product	HH: Handicraft households
MA: Marketing	IC: Institutional conditions

Source: Survey Data (2024)

Based on the resulting Influence x Dependence Map (Figure 4.2), it is clear that entrepreneurship (EN), marketing (MA), and location (LO) play pivotal roles as Key Factors in the wooden handicraft industry. They exhibit high levels of influence and dependency. Any changes in these factors significantly impact the system due to their central role in enterprise functionality. To enhance business stability and growth,

policies should prioritize entrepreneurship development through training programs and mentorship, equipping enterprise owners with essential skills in finance, management, and strategic planning. By strengthening entrepreneurs, the entire system benefits, as they drive decision-making and steer business direction. Marketing efforts should also receive significant attention, particularly in expanding market access domestically and internationally. The government or enterprise associations should support small businesses in marketing their products by offering promotional grants or access to larger distribution channels. Improving location-related factors could involve supporting businesses to establish in areas with better infrastructure and accessibility, which would help reduce costs and improve customer reach.

Raw material supply (RM) and capital (CA), identified as Determinant Factors, play crucial roles in supporting system stability, with their influence shaping the supply chain and financial resilience of enterprises. Ensuring a steady supply of high-quality raw materials is critical for these enterprises, especially given the dependence on wood resources. Developing partnerships with sustainable forestry initiatives or creating a regulated wood supply chain would allow handicraft businesses to secure the materials they need without depleting local resources. For capital access, financial institutions and micro-lending agencies should offer flexible loan options tailored to small-scale handicraft enterprises, including low-interest loans or revolving credit lines. Ensuring that enterprises have adequate capital will enable them to invest in quality materials, upgrade equipment, and improve production processes, supporting overall enterprise stability and growth.

Technology and equipment (TE), innovation (IN), and business performance (BP) fall under Aim Factors and are highly dependent on other elements within the system though they exert a moderate influence, showing that they rely heavily on the system for effective implementation. To foster improvements in these areas, policies should focus on making advanced technology and tools accessible to handicraft enterprises. This could involve subsidies or grants for equipment purchases and training programs that guide enterprises in using new technologies effectively. Additionally, fostering an environment of innovation requires more than just access to technology—it needs a mindset shift towards experimentation and creativity. Government or enterprise associations should establish innovation hubs or workshops where artisans can learn new techniques, experiment with product designs, and develop unique selling propositions that differentiate their products in the market.

Employee skills (EM) and product quality (PR) are Result Factors that depend heavily on the performance of Key and Determinant Factors. Enhancing workforce skills is essential, as employees play a critical role in the production process. Local training centers should be set up to provide specialized training in woodworking techniques, quality control, and finishing. In addition, standardizing quality measures across the industry could enhance product consistency and help enterprises meet customer expectations. Improved employee skills and standardized product quality would likely enhance customer satisfaction, leading to greater demand and potentially higher sales. By investing in employee development and product quality, the overall appeal of handicraft products can increase, providing a competitive advantage in both domestic and international markets.

Finally, handicraft households (HH) as a Supplementary Factor shows limited influence and dependency on the system, indicating its supportive but non-essential role. The institutional conditions (IC) as an Autonomous Factor indicate low influence and dependency, yet there's still potential to enhance the business environment through institutional support. Although institutional factors are less central, government policies that provide a favorable business climate, such as simplified registration processes and tax incentives, could indirectly benefit the entire industry. Additionally, local governments could work with industry groups to establish support networks that offer business advice, market insights, and legal assistance, making it easier for handicraft businesses to navigate regulatory challenges.

In summary, improving entrepreneurship, marketing, location, raw material supply, and capital access will drive substantial growth in the wooden handicraft sector. Ensuring easy access to technology and encouraging innovation can further enhance business performance. Policies supporting workforce training and product quality will improve outcomes for employees and strengthen the appeal of handicraft products. Institutional support, while less critical, can still play a role in creating a more conducive environment for these enterprises to thrive. By addressing these factors, policymakers and industry stakeholders can help uplift the wooden handicraft industry, contributing to economic growth and cultural preservation.

CHAPTER V

CONCLUSION

Handicrafts represent the cultural heritage of communities worldwide, showcasing local artistry and materials. As part of the larger home accessory market, the global handicraft industry was valued at \$680 billion in 2021 and is expected to grow significantly to \$1,252 billion by 2027. Items such as woodware and metal crafts play a major role in this market, often seen in kitchenware, decorative products, and toys. Handicrafts are essential to many developing economies, including those in Asia, such as China, Vietnam, and India, where handicrafts contribute significantly to exports. In Myanmar, handicrafts are deeply rooted in cultural history, with traditional crafts known as 'Myanmar's Ten Flowers' still actively practiced. As the country's second-largest employment sector, crafts employ around 2.4 million people, accounting for 12% of the urban labor market. Myanmar's National Export Strategy (2020-2025) prioritizes handicrafts for export-led growth, yet challenges persist, including limited market access, organizational issues, and the reliance on tourism. To foster sustainable economic growth, it is essential to explore factors that enable small-scale handicraft businesses to grow and upgrade. This research, therefore, seeks to identify these factors, aiming to inform policies that can drive rural development, alleviate poverty, preserve culture, and support the economic prosperity of Myanmar's handicraft sector.

5.1 Findings

5.1.1 Current Status of Small-scale Wooden Handicraft Enterprises

The study reveals that enterprises within the wooden handicraft sector face significant demographic, operational, and market challenges. Predominantly male-owned (80%) and composed mainly of experienced owners aged 41-50, these enterprises demonstrate a shift in material use, increasingly favoring wood species like Kokko (*Albizzia lebbek*) over traditional varieties like Padauk (*Pterocarpus macrocarpus* Kurz.), likely due to changing availability and cost factors. The enterprises' limited access to credit (only 5%) indicates a reliance on mortgaged property for financial support, restricting growth potential. In terms of market

performance, these enterprises have shifted focus to the domestic market, with 80% holding high local market shares (81-100%), whereas international presence has decreased significantly over the past five years. Barriers to market access, particularly a lack of market information and capital, were highlighted as major issues, underscoring the importance of resources and information for competing effectively.

In addition to operational challenges, several factors affecting innovation and cooperation among enterprises were examined. Employee capacity, skills, and technological resources emerged as key drivers of innovation. Respondents also cited reliable raw material supplies and training support as crucial for fostering cooperation within the industry. Notably, unstable wood prices and limited wood availability were rated as the most severe obstacles. High transportation costs further constrained these enterprises, indicating a dependency on stable supply chains and effective logistics for market access and production efficiency. These findings emphasize that raw material scarcity, market access difficulties, and logistical barriers significantly impact the industry's growth and sustainability.

5.1.2 Factors Influencing Enterprises Upgrading

The findings of the direct impact matrix and Influence x Dependence Map reveal the critical drivers and dependencies influencing the growth and sustainability of small-scale wooden handicraft enterprises in Myanmar. Key factors such as entrepreneurship, marketing, and location stand out due to their high influence and dependency within the system, highlighting their central role in shaping the overall success of these enterprises. Entrepreneurs and marketing play a substantial role, directly affecting production quality and market reach, while location impacts accessibility and infrastructure benefits. Effective policies focused on supporting these areas—through entrepreneurship training, market access expansion, and strategic location support—are likely to significantly boost the growth and resilience of handicraft enterprises.

The analysis further underscores the importance of determinant factors, specifically raw material supply and capital, which provide essential stability. These factors have a substantial impact on the supply chain and production capacity, indicating that efforts to secure sustainable wood sources and accessible financing could greatly benefit handicraft enterprises. Meanwhile, the influence of technology,

innovation, and business performance shows that while these areas are moderately impactful, they heavily depend on broader systemic support. Improving access to modern tools, fostering a culture of innovation, and enhancing production techniques through training can help increase operational efficiency and product differentiation. Ultimately, by focusing on these factors, Myanmar's wooden handicraft sector can achieve improved competitiveness, aligning economic and cultural preservation goals.

5.2 Suggestions

Based on the findings, the followings are suggested to enhance the growth of small-scale wooden handicraft enterprises in Bago Township.

- (i) To alleviate financial constraints and promote growth, financial institutions and enterprises associations could develop tailored credit solutions for handicraft enterprises. Given that only a small percentage of respondents have credit access, introducing flexible loan programs or credit options suited to the needs of these businesses could empower them to invest in production expansion and innovation. Supporting market access through government-backed financial initiatives or grants specifically for small handicraft businesses could also improve their competitive position both domestically and internationally. By providing businesses with additional resources, the industry can better navigate financial challenges and capitalize on growth opportunities.
- (ii) To tackle the supply chain issues and promote sustainability, establishing partnerships with certified wood suppliers or forestry agencies may help stabilize wood prices and ensure a reliable supply. Given the shift to alternative wood species, exploring certified and sustainable forestry options can help mitigate supply uncertainties while supporting environmental conservation. Additionally, industry stakeholders might consider creating shared logistics solutions to reduce transportation costs, making it easier for businesses to reach their market. Investing in technical training programs and information-sharing platforms can also foster stronger cooperation, further enhancing the industry's overall resilience and competitiveness.
- (iii) To foster growth within the wooden handicraft sector, it is recommended that initiatives focus on strengthening key factors like Entrepreneurship (EN) and Marketing (MA). Training programs and mentorship in finance, management, and strategic marketing could empower entrepreneurs to make informed

business decisions and explore new markets. Marketing efforts should be expanded, particularly for international audiences, as export potential is high in markets valuing unique handcrafted goods. Government and industry associations could aid by offering marketing grants or establishing partnerships that connect small businesses with larger distribution networks, maximizing their reach and sales potential.

(iv) Securing steady Raw Material Supply (RM) and expanding access to Capital (CA) are also vital to ensuring resource availability and financial stability. Developing a regulated supply chain in collaboration with sustainable forestry initiatives would help enterprises secure the necessary wood materials without ecological strain. To improve capital access, microfinance options, low-interest loans, or flexible credit lines tailored to small handicraft businesses should be available. This financial backing enables investment in quality materials and improved equipment, reducing production bottlenecks and allowing businesses to meet growing demand efficiently. By addressing these areas, the handicraft sector can enhance profitability, support local economies, and uphold cultural craftsmanship.

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APPENDIX – I

LIST OF WOODEN HANDICRAFTS IN BAGO TOWNSHIP

Sr.	Wooden Handicraft
1.	Address Card Box
2.	Alcohol Pot
3.	Alms Meal Bowl
4.	Animal Statues
5.	Apple Ash Tray
6.	Ash Tray
7.	Baby Bowl
8.	Baby Fork
9.	Baby Spoon
10.	Bagan Bagan
11.	Bagan Lady
12.	Belt
13.	Bird Shoehorn
14.	Bird Shoehorn & Shoehorn Stand
15.	Boat
16.	Bowl
17.	Buddha Statue
18.	Buffalo Sculptures
19.	Bull Sculptures
20.	Bullock cart
21.	Butter Knife
22.	Cake Suber
23.	Candle cup
24.	Candle Tray
25.	Candy Box
26.	Carving tray
27.	Cassa
28.	Cat Sculptures

Sr.	Wooden Handicraft
29.	Chicken Sculptures
30.	Child Fork
31.	Child Soup Spoon
32.	Child Spoon
33.	Chinese Buddha
34.	Chopstick
35.	Chopstick Rest Kinoko
36.	Chopstick Rest Kinoko
37.	Chopstick Rest Kuri
38.	Chopstick Rest Mame
39.	Chopstick Rest Minimini spoon
40.	Chopsticks (set)
41.	Cigarette Case (Owl)
42.	Clock
43.	Cloth hook
44.	Coral Fish Sculptures
45.	Cow Sculptures
46.	Cup
47.	Cylinder Box
48.	Deer Sculptures
49.	Different Types of Fruits
50.	Dog Sculptures
51.	Dolphin Shoehorn
52.	Dragon Sculptures
53.	Drinking cup
54.	Duplicate figure
55.	Eagle Sculptures
56.	Ear Stick
57.	Elephant family sculpture
58.	Elephant Flower Pot
59.	Elephant Statues

Sr.	Wooden Handicraft
60.	Eye roll
61.	Find bottled water
62.	Flower Basket
63.	Flower Pot
64.	Flower Vase
65.	Fly Spoon
66.	Food Carrier Box
67.	Food Tray
68.	Foot Taner
69.	Fork
70.	Frog
71.	Frog and mouse
72.	Frogs and Mice Sculptures
73.	Fruit Tray
74.	Glass wine bottle
75.	Goat
76.	Green Tea Cup
77.	Guinomi Cup
78.	Hammer
79.	Hanging elephant figure
80.	Heat plate
81.	Hime Spoon
82.	Honey Mother Spoon
83.	Honey Stick
84.	Horse
85.	Horse figure
86.	Horse Sculptures
87.	Hot water cup
88.	Human Statues
89.	Ice cutter
90.	Ice Spoon

Sr.	Wooden Handicraft
91.	Incense Pot
92.	Japanese Tea Cup
93.	Jewellery Box
94.	Jum Knife
95.	Junior Hanger Pole
96.	Kettle
97.	Key Chain
98.	Key hook
99.	Korokoro
100.	Lamp house
101.	Large Vase
102.	Lawka Nat Statues
103.	Lighter Case
104.	Lion Sculptures
105.	Lucky Fish Sculptures
106.	Madler
107.	Make-up Box
108.	Mama Spoon
109.	Meat Stick
110.	Mini Tray
111.	Momi
112.	Monkey Sculptures
113.	Mother elephant
114.	Natural Big Spoon
115.	Natural Simple Fork
116.	Natural Simple Spoon
117.	Natural Spoon
118.	Nigiri
119.	Palm sandal
120.	Pen cup
121.	Pen pot

Sr.	Wooden Handicraft
122.	Phone Speaker
123.	Photo gallery
124.	Pig Sculptures
125.	Pipe
126.	Plate
127.	Pu Sculptures
128.	Pumpkin Sculptures
129.	Queen Statue
130.	Rabbit Sculptures
131.	Rat Sculptures
132.	Rhino Sculptures
133.	Rice bowl
134.	Rice Spoon
135.	Sculpture vase
136.	Shoe Horn
137.	Silm Cup
138.	Silm Mini Cup
139.	Simple Spoon
140.	Snake
141.	Spanish sandals
142.	Spoons
143.	Square Stand
144.	Sugar Spoon
145.	Table Clock
146.	Table Lump
147.	Table vase
148.	Taner
149.	Tea leaves Box
150.	Teaspoon
151.	Tiger Family Sculptures
152.	Tiger Sculptures

Sr.	Wooden Handicraft
153.	Tiger Sculptures
154.	Tissue box
155.	Toys
156.	Tray Large Size
157.	Tray Medium Size
158.	Tri Fork
159.	Tri Spoon
160.	Umbrella lamp
161.	Underplate (Set)
162.	Uni China Spoon
163.	Uni Curry Spoon
164.	Uni Fork
165.	Uni Soup Spoon
166.	Uni Spoon
167.	Various boxes
168.	Various bracelets
169.	Various cans
170.	Various Clocks
171.	Various hand rolls
172.	Various mortars
173.	Walking Stick
174.	Wall Lump
175.	Welcome Statue
176.	Wine Cup
177.	Wristband
178.	Yacht

APPENDIX – II

QUESTIONNAIRES

Name company:

Address:

Name of interviewee:

Position:

Gender:

Which year starting operation?.....

Does your enterprise have a business registration certification?

If yes: how many years?

If no: why?

.....

PRODUCTS OF THE ENTERPRISE

What are your products?

Type of tree species used for production

10 years ago

At time of Interview.....

EMPLOYEE CHARACTERISTICS

How many regular workers are there in your enterprise At starting operation or 10 years ago:

	1 – 10 workers		Workers		20 – 30 workers
	> 30 workers				

At time of interview:

	1 – 10 workers		10 – 20 workers		20 – 30 workers
	> 30 workers				

Salaries/wages of employees are paid:

	On hour basis	On daily basis	On a monthly basis
	Based on number of products		

CREDIT ACCESS

Where can the company access financial resources?

<input type="checkbox"/>	Government	<input type="checkbox"/>	Bank	<input type="checkbox"/>	NGOs
<input type="checkbox"/>	Self-finance	<input type="checkbox"/>	Others	<input type="checkbox"/>	

If loan from banks, to what extent is your enterprise able to fulfill requirements from banks?

<input type="checkbox"/>	High	<input type="checkbox"/>	Medium	<input type="checkbox"/>	Low
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The interest rate of bank per month or year

What are the major obstacles to borrowing from the bank?

<input type="checkbox"/>	Mortgaged property	<input type="checkbox"/>	Corruption	<input type="checkbox"/>	Relations with banks
<input type="checkbox"/>	Interest rates	<input type="checkbox"/>	Not lending required amount	<input type="checkbox"/>	

MARKET ACCESS

Does your enterprise have any certification?

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	
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If yes, how many?.....

Does the enterprise attend an exhibition?

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	
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What is the sale volume rate in the domestic market? (as % of total sales)

At 5 years ago:

At time of interview:.....

What is the sale volume rate in the international market? (as % of total sales)

At 5 years ago:

At time of interview:.....

Does the enterprise have any marketing activities

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	
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If Yes:

<input type="checkbox"/>	Exhibition	<input type="checkbox"/>	Website	<input type="checkbox"/>	Catalogue
<input type="checkbox"/>	Showroom	<input type="checkbox"/>	All	<input type="checkbox"/>	

How you rate the following obstacles in accessing the market

(1=Smallest, 2=Small, 3=Medium, 4=Big,5=Biggest)

Obstacles	1	2	3	4	5
Lack of Capital					
Lack of Market Information					
Poor Innovation in Production					
High Transportation Cost					
Poor Support from Government Institutions					

STATE OF INNOVATION

How you rate the following issues affecting the innovation in your enterprise

(1=Smallest, 2=Small, 3=Medium, 4=Big,5=Biggest)

Issue	1	2	3	4	5
Finance					
Capacity and Skills of Employee					
Competitive Market					
Government/Institutional Support					
Technology					

ENTREPRENEUR CHARACTERISTICS

Education qualification and experience of the enterprise owner

<input type="checkbox"/>	Graduated from University/college
<input type="checkbox"/>	Graduated from Vocational program
<input type="checkbox"/>	Has Post-graduate degree in business administration
<input type="checkbox"/>	Without training and doing business with your personal experiences

How you rate the following obstacles in your business ((1=Smallest, 2=Small, 3=Medium, 4=Big,5=Biggest) ?

Obstacles	1	2	3	4	5
Lack of Capital					
Difficult to Access Market					
Market Information					

Obstacles	1	2	3	4	5
Low Qualification of Employees					
Shortage of skillful workers					
Depending on HHs for Semi-finished Products					
Depending on Some big Distributers					
Poor Technology					
Poor Innovation					
Uncertain Price of Wood					
Decreased availability of Wood					
High Transportation Cost					
Poor support of Government/Institutions					

COOPERATION

Do you receive support or cooperate with actors or institutions?

<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
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If yes,

Who are your business partners?.....

What kind of support or cooperation?.....

How do you rate the following factors of cooperation to upgrade? (if you strongly agree give one, if strongly disagree give five and if your view is in between give values within this range)

Factors	1	2	3	4	5
Financial Support					
Sharing Market Information					
Technical Support					
Training Support					
Raw Material Supply					
Households for Providing Semi-finished Products					

Thank you for your cooperation.