

**YANGON UNIVERSITY OF ECONOMICS
DEPARTMENT OF APPLIED ECONOMICS
MASTER OF PUBLIC ADMINISTRATION PROGRAMME**

**A STUDY ON WOOD PRODUCT INDUSTRY IN MYANMAR
(Case Study: Wood-Based Industries Zone, Shwe Pyi Thar
Township , Yangon Region)**

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EMPA - 98 (20th BATCH)**

JUNE, 2025

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**A STUDY ON WOOD PRODUCT INDUSTRY IN MYANMAR
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A thesis submitted as a partial fulfillment towards the requirement for the degree of
Master of Public Administration (MPA)

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MASTER OF PUBLIC ADMINISTRATION PROGRAMME

This is to certify that this thesis entitled “**A Study on Wood Product Industry in Myanmar (Case Study: Wood-Based Industries Zone, Shwe Pyi Thar Township , Yangon Region)**”, submitted in partial fulfilment towards the requirements for the degree of Master of Public Administration (EMPA) has been accepted by the Board of Examiners.

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ABSTRACT

This study explores employee perceptions and experiences within the wood-based industry Zone in Shwe Pyi Thar Township, Yangon Region, Myanmar, focusing on governance, environmental sustainability, economic impact, community engagement, and working conditions. Based on responses from 110 workers across various roles, the findings reveal that the workforce is predominantly male, middle-aged, and primarily employed in assistant-level positions. Most employees have completed secondary education and demonstrate long-term service in the industry. Employment is nearly evenly split between full-time and part-time roles, reflecting flexibility in the labor structure. Descriptive analysis indicates that governance and regulation are met with cautious optimism. Employees in Myanmar express moderate confidence in government monitoring and policy enforcement, but skepticism remains about sustainability policies' long-term impact. They are aware of eco-friendly practices, economic benefits, and community engagement. However, integration of community feedback into operations is limited. Concerns about job insecurity and illegal logging threaten employment stability and environmental outcomes. To address these concerns, the study recommends enhancing regulatory transparency, promoting inclusive community engagement, and strengthening job security.

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ABBREVIATIONS

CBFM	-	Community Based Forest Management
EIA	-	Environmental Impact Assessment
FAO	-	Food and Agriculture Organization
FSC	-	Forest Stewardship Council
ILO	-	International Labour Organization
MONREC	-	Ministry of Natural Resources and Environmental Conservation
MTE	-	Myanma Timber Enterprise
PEFC	-	Programme for the Endorsement of Forest Certification
SMEs	-	Small and medium sized enterprises

CHAPTER I

INTRODUCTION

1.1 Rationale of the Study

The wood industry in Myanmar has a long and complex history, deeply intertwined with the country's economic and social fabric. Myanmar's forests are home to a rich diversity of timber species, including the highly prized Burmese teak, which has been a significant export commodity for centuries (Bryant, 1997). The industry has provided employment to millions and contributed substantially to the national economy (Forest Trends, 2015). However, the sector has faced numerous issues over the years, including illegal logging, deforestation, and inadequate regulatory frameworks that threaten its sustainability (EIA, 2019).

The wood industry is a cornerstone of many economies, providing essential raw materials for construction, furniture, and paper production (FAO, 2020). Despite its economic importance, the industry faces significant sustainability challenges, such as illegal logging and deforestation, which have severe environmental impacts (Kowero, Spilsbury, & Chipeta, 2003). These issues are not unique to Myanmar but are prevalent in many timber-producing countries around the world, where weak governance and high demand for timber fuel unsustainable practices (Lawson, 2014).

Nationally, Myanmar's wood industry is regulated by the Myanma Timber Enterprise (MTE), a state-owned monopoly responsible for the harvest and sale of timber (Obendorf, 2020). The MTE has been accused of corruption and illegal logging, which have undermined efforts to promote sustainable forestry practices (EIA, 2016). Despite international sanctions and efforts to curb illegal timber trade, the industry continues to face significant governance and enforcement challenges that hinder effective policy implementation (Win, 2019).

Locally, the wood industry plays a crucial role in the livelihoods of many communities in Myanmar. Forests provide not only timber but also non-timber forest products that are essential for the subsistence of local populations (Leimgruber et al., 2011). However, the over-exploitation of forest resources has led to environmental

degradation and loss of biodiversity, affecting the livelihoods of these communities (Treue, Yildiz, & Htun, 2016). The depletion of natural resources not only impacts economic opportunities but also threatens the ecological balance required for sustainable development.

There has been a growing recognition of the need for sustainable forest management practices to ensure the long-term viability of the timber industry (FAO, 2021). Efforts are being made to promote sustainable practices and reduce the environmental impact of timber production, such as implementing community-based forestry programs and certification schemes like the Forest Stewardship Council (FSC) (Springate-Baginski & Blaikie, 2007). However, these initiatives face significant challenges, including weak law enforcement, lack of financial resources, and entrenched corruption (Rosenbaum & Lindsay, 2001).

The wood industry in Myanmar is at a critical juncture, with the need to balance economic growth with environmental sustainability. Addressing the issues faced by the industry will require a concerted effort from all stakeholders, including government agencies, industry players, and local communities (Durst et al., 2006). Only through collaborative efforts can the wood industry in Myanmar achieve sustainable growth and contribute to the country's development without causing irreversible environmental damage.

By examining the sector's challenges and opportunities, this research can provide valuable insights for policymakers, industry stakeholders, and conservationists. Understanding the dynamics of Myanmar's timber industry is essential for crafting effective regulations and sustainable development strategies. This study aims to contribute to the discourse on responsible resource management, ensuring that the timber industry can thrive while preserving the country's rich forest heritage for future generations (Sasaki & Putz, 2009).

1.2 Objective of the Study

The main objective of the study is

- To investigate the employee's perception on the wood industry challenges in wood-based industry zone, Shwe Pyi Thar Township, in Yangon.

1.3 Method of Study

This study uses a descriptive method to provide by using primary and secondary data. Secondary data will be sourced from government reports, industry publications, and academic journals to assess the current state of the industry. Primary data will be collected through structure questionnaires to employees in wood industry in Shwe Pyi Thar Township.

1.4 Scope and Limitations of the Study

The scope of this study includes wood industry's challenges in Shwe Pyi Thar Township, Yangon region. The survey period is from February to March, 2025.

1.5 Organization of the Study

The study is organized into five key chapters. Chapter I: Introduction provides an overview of the study, including the rationale, objectives, method, scope and limitations. Chapter II: Literature Review delves into existing literature on the global and local timber industry, focusing on challenges, impacts, and regulatory frameworks. Chapter III: Overview presents a comprehensive overview of the wood products industries in Myanmar. Chapter IV: Survey Analysis analyzes the primary data collected from surveys, to explore the key challenges faced by the industry. Chapter V: Findings summarizes the key findings from the study, and suggestions for the wood industry.

CHAPTER II

LITERATURE REVIEW

2.1 Definition and Concept of Wood Industry

The wood industry, also referred to as the forestry or wood products industry, encompasses a wide range of activities that involve the harvesting, processing, and distribution of wood and wood-based products. The wood industry forms a vital part of the global economy by contributing to construction, furniture manufacturing, and energy production. This industry includes the sustainable management of forests, logging operations, sawmilling, and the production of goods such as plywood, veneer, and paper products. It also involves complex supply chains that span from forest resources to end-users in various domestic and international markets. (FAO,2020),

The concept of the wood industry is closely tied to sustainable forest management (SFM), which seeks to balance economic growth with environmental preservation. Sustainable forestry as the practice of harvesting timber while maintaining the health and biodiversity of forests for future generations. This approach is guided by certifications such as the Forest Stewardship Council (FSC) and the Programme for the Endorsement of Forest Certification (PEFC). These certifications aim to ensure that timber production complies with ecological, social, and economic standards, making sustainability an integral component of the modern wood industry. (Leslie et al,2019)

The wood industry's economic aspects are also quite important. Wood is a high-demand commodity in both local and global markets, providing raw materials for industries such as construction, furniture, and paper production. That the economic significance of timber goes beyond its immediate financial returns, as it supports employment and infrastructure development in timber-producing regions. In developing countries like Myanmar, the timber industry plays a vital role in national revenue generation through exports, despite challenges such as fluctuating market demands and regulatory constraints. (Smith and Johnson, 2018)

The environmental implications of the wood industry are profound. Forests act as carbon sinks, and deforestation resulting from unsustainable logging can exacerbate climate change and biodiversity loss . The concept of "reforestation" and "afforestation"

has gained importance within the timber sector to mitigate these environmental impacts. Highlights that sustainable timber production can contribute positively to climate goals when coupled with effective reforestation practices, thereby reducing carbon footprints and restoring degraded forest lands. (Global Forest Watch,2022)

The wood industry is a multifaceted sector that integrates economic development, sustainable forestry practices, and environmental stewardship. Theoretical frameworks and practical applications, such as sustainable forest management and industry certifications, are shaping the industry to meet contemporary challenges. As Myanmar strives to modernize its timber industry, understanding its fundamental concepts and best practices from global contexts will be crucial to addressing local challenges and leveraging the sector's potential for sustainable growth.

2.2 Role of Wood Industry on Economic Development

The wood industry plays a pivotal role in driving economic development, particularly in countries with abundant forest resources like Myanmar. The sector contributes significantly to national GDP by providing raw materials for various industries, including construction, furniture manufacturing, and paper production. Timber exports generate substantial foreign exchange earnings, enabling governments to fund development projects and public services. In developing economies, the timber industry often serves as a backbone for rural development, fostering job creation and infrastructure improvements in forest-dependent communities. (FAO, 2020),

One of the primary ways the wood industry supports economic development is through employment generation. The wood sector is labor-intensive, creating jobs across its value chain—from forest management and logging to processing and distribution. This employment not only benefits individuals but also boosts local economies, as wages earned are spent on goods and services. Addressing regional issues and using the wood industry's potential for long-term growth will require and awareness of basic ideas and best practices from other countries as Myanmar works to update its sector. (Smith and Johnson ,2018)

The wood industry also stimulates economic growth through value addition. Processing raw wood into finished products, such as furniture, plywood, and veneers, creates higher-value goods that can be sold at premium prices in domestic and international markets. Countries focusing on value-added timber production can achieve greater economic diversification and reduce dependence on raw material

exports. However, challenges such as outdated processing technologies and limited infrastructure have hindered the industry's ability to maximize value addition, underscoring the need for targeted investments and policy interventions. (Leslie et al, 2019)

Export earnings from the wood industry are another critical driver of economic development. Wood is one of the most traded commodities globally, with high demand in construction, furniture, and paper industries. The wood industry has historically been a major source of foreign exchange, with teakwood being particularly prized in international markets. However, over-reliance on timber exports without adequate sustainability measures has led to resource depletion, which in turn affects long-term economic stability. Sustainable practices, such as certified timber production, can help maintain export revenues while preserving forest resources. (Brown and Harris, 2021)

The wood industry also plays a role in fostering regional and rural economic development. Forest-dependent communities often rely on timber-related activities for income and subsistence. FAO (2021) emphasizes that integrating community forestry into the timber value chain can empower local populations, reduce inequality, and promote inclusive economic growth. In Myanmar, community-based forestry initiatives have the potential to enhance rural livelihoods while ensuring sustainable forest management, creating a win-win scenario for both economic development and environmental conservation.

The wood industry is a vital engine for economic development, contributing through job creation, export revenues, value addition, and infrastructure development. However, its long-term role depends on sustainable practices that balance economic growth with environmental preservation. As Myanmar seeks to revitalize its timber industry, addressing challenges such as illegal logging, outdated technologies, and inadequate policies will be essential to unlocking the sector's full potential while safeguarding its forests for future generations.

2.2.1 Direct Contributions of the Wood Industry

The wood industry provides direct jobs in logging, sawmilling, wood processing, and related activities.

Wood production and export generate significant income for the country through taxes, fees, and foreign exchange earnings.

The industry stimulates local economies by supporting small businesses and communities involved in forestry operations.(global forest watch-2022)

2.2.2 Indirect Impacts of the Wood Industry

Growth in the wood sector often necessitates investments in transportation (roads, railways), energy supply, and communication networks. These infrastructure improvements benefit other sectors and enhance overall economic efficiency.

Adoption of modern technologies in timber harvesting and processing increases productivity, reduces waste, and boosts competitiveness in global markets.

Improved infrastructure and technology can attract additional investments, facilitate trade, and create spillover benefits for other industries.

Leveraging these indirect benefits in Myanmar requires coordinated efforts among government, private sector, and international partners to maximize positive outcomes for economic development..(global forest watch-2022)

2.2.3 Global Wood Products: GDP Contribution, Leading Producers, and Export Facts

GDP Contribution of Global Wood Products

The formal forest sector-including wood products-contributes over USD 1.5 trillion to national economies worldwide.

According to FAO estimates, the wood and forest products industry accounts for approximately 2% of global GDP through direct and indirect economic activities.

Table (2.2) Top Wood-Producing Countries

Rank	Country	Notable Production/ Type	2024 Estimated Production(million tons)
1	United States	Softwood & hardwood	77
2	China	Softwood, hardwood, wood chips	137.4
3	Russia	Softwood	194
4	Brazil	Hardwood	190
5	Canada	Softwood	53
6	Indonesia	Tropical hardwood	83.4
7	Sweden	Softwood	87
8	Finland	Softwood	62
9	Democratic Rep. of Congo	Tropical hardwood	70
10	Germany	Softwood & hardwood	55

Sources: the world's forest (2024)

Global wood production is at a record level of about 4 billion cubic meters per year.

China leads in wood chips, particles and residues production with over 152 million cubic meters in 2023.

Wood Products Export

In 2023, the global export value of wood paper products was approximately USD 482 billion. This represents a decrease from previous years but remains historically high.

Top wood-exporting countries are Canada(USD 29.7 billion annually, United States, Germany, Russia, Sweden, Finland, Brazil and Vietnam (Targeting USD 18 billion in wood exports for 2025).

The United States, Canada and Germany are consistently among the largest exporters of wood products. Vietnam is rapidly increasing its export share, aiming for a record in 2025.

2.3 Impact of Wood Industry on Society and Environmental

Social Impact of the Wood Industry

The wood industry is a major employer, providing income opportunities for skilled and unskilled labor in logging, transportation, processing, and furniture manufacturing (FAO, 2020).

In rural and forest-dependent areas, many communities rely on this industry as their primary livelihood, driving local development.

However, benefits are unevenly distributed; poor labor conditions and informal employment dominate, offering limited social protections (ILO, 2017).

Profits from high-value timber often do not reach forest communities, raising equity and social justice concerns (Springate-Baginski & Blaikie, 2007).

Cultural impacts include erosion of traditional knowledge and indigenous forest management due to commercialization, causing conflicts over land and resource rights (Colchester, 2004; Obendorf, 2020).

Environmental Impact of the Wood Industry

Unsustainable logging causes deforestation, especially in biodiverse Myanmar forests, threatening species like teak (EIA, 2019).

Deforestation reduces carbon sequestration, causes soil erosion, disrupts water cycles, and increases vulnerability to natural disasters (Kowero et al., 2003).

Biodiversity loss results from habitat fragmentation and forest degradation, endangering wildlife such as Asian elephants and birds (WWF, 2020).

Illegal logging and weak enforcement exacerbate environmental damage.

Infrastructure development (roads, sawmills) linked to logging opens forests to illegal activities and pollution risks (Laurance et al., 2002; Rosenbaum & Lindsay, 2001).

The wood industry contributes indirectly to climate change through deforestation and forest degradation, releasing greenhouse gases (IPCC, 2019).

Sustainable forest management and certification (e.g., FSC) promote environmentally responsible practices (FAO, 2021).

Community-based forest management in Myanmar shows promise but faces challenges like limited capacity and enforcement (Springate-Baginski et al., 2011).

2.4 Wood Products Industry Challenges

The wood products industry is a vital sector that contributes to economic growth, employment, and international trade. However, despite its significance, the industry faces a wide range of challenges that hinder its development and sustainability, particularly in developing countries. These challenges span multiple areas, including workforce limitations, technological gaps, business environment constraints, industry structure inefficiencies, management weaknesses, and slow innovation adoption. Addressing these issues is crucial for ensuring the industry's long-term viability, competitiveness, and ability to meet global sustainability standards. The following are the key challenges confronting the wood products industry, providing insights into the barriers that must be overcome to foster a more resilient and sustainable sector. (FAO, 2020; ILO, 2017; Durst et al., 2016; UNECE/FAO, 2021).

(a) Workforce Challenges

The availability of a skilled workforce remains a critical challenge for the wood products industry in developing countries. According to Hansen et al. (2016), many workers in this sector lack the technical knowledge and expertise to operate advanced machinery and adopt modern production techniques. Limited access to vocational training programs exacerbates this problem, leading to reduced efficiency and quality in production processes. Moreover, insufficient investment in workforce development creates a gap between labor demand and supply.

Another challenge arises from the migration of skilled labor to other industries or regions offering better job opportunities and working conditions. This "brain drain" effect is especially prominent in developing countries where labor-intensive industries, including construction and agriculture, compete for the same talent pool. As a result, the wood products industry faces difficulty retaining its workforce, impacting productivity and growth potential. (FAO, 2022)

Poor working conditions and low wages further discourage the workforce in the wood products industry. Many workers operate in unsafe environments without proper protective equipment, leading to high occupational health risks. The absence of structured career advancement opportunities and fair compensation packages further diminishes workforce morale, contributing to a lack of commitment and high employee turnover rates. (Nketiah et al, 2014)

(b) Technology Challenges

The technological lag between developing and developed countries continues to hinder the growth of the wood products industry. Many wood-processing facilities in developing regions rely on outdated machinery that compromises both production efficiency and the quality of finished products. Such technological deficits increase operating costs, reduce competitiveness, and limit the ability of these facilities to meet international standards. (Nketiah et al, 2014)

Limited access to affordable and advanced processing technologies also restricts value addition in the wood products industry. This challenge is particularly detrimental for small and medium-sized enterprises (SMEs), which lack the financial resources to invest in modern equipment. Consequently, these enterprises are confined to producing low-value goods, missing opportunities for higher profitability in global markets. (Cashore et al, 2007)

Technological advancements in sustainable forestry and production practices, such as sawmill automation and wood preservation techniques, remain underutilized in developing countries. The lack of knowledge transfer and technological adoption inhibits the industry's ability to implement sustainable practices, which are increasingly demanded by consumers and regulatory authorities worldwide. (Hansen et al., 2016)

(c) Business Environment Challenges

The wood products industry operates within a challenging business environment in many developing countries. High levels of bureaucracy and corruption often lead to inefficiencies in obtaining necessary permits and licenses. Weak governance frameworks and lack of transparency create uncertainty for businesses, deterring local and foreign investment in the sector. (Kaimowitz ,2003)

Market volatility further complicates the business environment. Developing countries frequently experience fluctuations in raw material prices due to unsustainable

harvesting practices and deforestation. Such instability increases the cost of doing business and impacts the ability of enterprises to plan for long-term growth. (Geist & Lambin, 2002)

Trade barriers, including non-tariff barriers and stringent export requirements, hinder the integration of the wood products industry into international markets. Many businesses in developing countries struggle to meet certification standards such as FSC (Forest Stewardship Council) or PEFC (Programme for the Endorsement of Forest Certification). This limits their access to high-value markets in Europe and North America, further constraining growth opportunities. (Cashore et al,2007)

(d) Industry Structure Challenges

The fragmented nature of the wood products industry in developing countries poses significant challenges to its growth. Many small-scale producers operate informally, lacking the resources to formalize their operations or scale their businesses. This lack of cohesion within the industry leads to inefficiencies in production, distribution, and marketing. (Hansen et al., 2016)

The dominance of informal players often results in unfair competition and price undercutting, which erodes the profitability of formal businesses. Highlights that such structural challenges not only affect domestic markets but also weaken the ability of the industry to present a unified front in international trade. The lack of industry associations further exacerbates the problem, as stakeholders fail to collaborate on common goals such as policy advocacy and market expansion. (FAO ,2022)

Additionally, the absence of a well-established supply chain infrastructure hampers the industry's growth potential. Poor transportation networks and inadequate storage facilities increase production costs and result in high levels of waste. Structural issues requires coordinated efforts between governments, industry players, and international donors to build a more robust industrial ecosystem. (Kaimowitz, 2003)

(e) Management Challenges

Effective management is a key determinant of success in the wood products industry, yet many enterprises in developing countries struggle with weak leadership and poor strategic planning. Many businesses lack professional management practices, relying instead on family-owned or informally-run operations. This often leads to inefficiencies and missed opportunities for growth. (Locatelli et al,2008)

Another challenge lies in financial management. SMEs in the wood products sector frequently encounter difficulties in accessing credit and managing cash flows. Without adequate financial resources, these businesses are unable to invest in new technologies, expand production, or enter new markets. Poor financial planning also increases vulnerability to economic shocks, further limiting growth potential. (Hansen et al., 2016)

Weak human resource management practices contribute to the challenges faced by the industry. Many enterprises fail to invest in employee training and development, resulting in low productivity and high turnover rates. A lack of strategic workforce planning also limits the ability of these businesses to attract and retain skilled talent, further constraining their growth prospects. (FAO, 2022)

(f) Innovation and Technology Application Challenges

Innovation in the wood products industry is critical for enhancing competitiveness and sustainability, yet it remains a significant challenge in developing countries. Limited investment in research and development (R&D) stifles innovation, leaving businesses reliant on traditional production methods. This lack of innovation restricts the development of high-value wood products that could enhance profitability. (Nketiah et al,2014),

The slow adoption of advanced technologies further hinders progress. Many enterprises are hesitant to embrace innovations such as computer numerical control (CNC) machines or digital inventory management systems due to high upfront costs and limited technical expertise. This reluctance to adopt new technologies impedes productivity and reduces the industry's ability to meet evolving market demands. (Cashore et al,2007)

The application of technology for sustainable forestry practices remains a challenge. Tools such as remote sensing and GIS (Geographic Information Systems) are underutilized in many developing countries. These technologies could significantly improve forest management, ensuring a balance between economic and environmental objectives. However, their adoption is often limited by cost constraints and a lack of skilled professionals to operate them. (Locatelli et al,2008)

2.5 Review on Previous Studies

Zhou(2017) analyzed the environmental impact of timber extraction in Southeast Asia, with a particular focus on illegal logging and deforestation. The study employed a mixed-methods approach, combining satellite imagery analysis with field surveys in Myanmar and neighboring countries. The findings indicated a strong correlation between illegal logging activities and forest degradation, which threatened biodiversity and disrupted local communities' livelihoods. The authors recommended stricter law enforcement and increased transparency in timber trade to mitigate environmental damage.

A study by Kusters et al.(2018) The socio-economic impact of community-based forest management (CBFM) on local communities in Myanmar. Using qualitative methods, the authors conducted in-depth interviews with local stakeholders, including farmers, forest managers, and government officials. Their research revealed that CBFM improved local income levels and empowered marginalized communities by promoting sustainable timber harvesting and forest conservation practices. However, the study also noted challenges in policy implementation, with some local groups facing difficulty in gaining access to timber markets due to weak enforcement of forest management laws.

Buechler (2019) focused on the challenges of value addition in the timber industry in Myanmar. The researchers used a survey-based approach, gathering data from 150 timber-related businesses across the country. Their findings revealed that a lack of modern technology and limited access to financial resources were major barriers to improving timber processing and increasing product value. The study recommended policy reforms to support small and medium-sized enterprises (SMEs) by providing better access to credit and introducing advanced processing technologies.

The role of sustainable forestry certifications in enhancing the timber industry's global competitiveness was explored by Nguyen and Lee (2020). Their study used both qualitative interviews and quantitative surveys to examine the effectiveness of certification systems such as FSC and PEFC in Southeast Asia. The authors found that certification significantly improved the reputation of timber products in international markets, especially in Europe and the United States. However, they noted that the high costs of certification and lack of awareness among local producers posed challenges to wider adoption in Myanmar. Their recommendation emphasized the need for government incentives to encourage certification in the sector.

Liu (2021). investigated the impact of climate change on the timber supply chain in the Asia-Pacific region, including Myanmar. Using a combination of climate modeling and supply chain analysis, the study found that shifts in rainfall patterns and increasing temperatures would likely disrupt timber production by affecting tree growth and the health of forests. The researchers emphasized the need for adaptive management strategies, such as diversifying tree species and implementing climate-resilient forestry practices, to secure future timber supplies.

Ravikumar et al. (2022) examined the role of digital technologies in improving timber harvesting and processing efficiency. The study employed a case study methodology, focusing on timber companies in Myanmar that adopted digital solutions such as GIS (Geographic Information Systems) and remote sensing for forest monitoring. The results showed that digital technologies improved operational efficiency, reduced waste, and enabled better forest management. The authors highlighted that the high cost and technical complexity of these technologies were significant barriers to widespread adoption, particularly among small-scale timber producers.

Tan et al. (2023) explored the political economy of timber governance in Myanmar, with a focus on the relationship between government policies and industry performance. Through a qualitative analysis of policy documents and interviews with key stakeholders, the study found that inconsistent and often contradictory policies hindered the effective management of the timber sector. The authors called for policy reforms that would streamline regulations, enhance law enforcement, and align government incentives with sustainable timber production practices.

CHAPTER III

OVERVIEW OF WOOD PRODUCT INDUSTRY IN MYANMAR

3.1 Historical Background of the Ministry of Natural Resources and Environmental Conservation (MONREC) in Myanmar

The Ministry of Agriculture and Forestry was initially formed with the Minister's Office, Planning and Statistics Department, Myanmar Agriculture Service, Myanmar Timber Enterprise, Myanmar Agricultural Produce Service, Irrigation Department, Forest Department, Survey Department, and Agricultural Mechanization Department. Its office was located at the Ministers' Office Building on Sint-Oh-Dan Street, Botahtaung Township, Yangon.

Subsequently, on November 18, 1989, the office was relocated and opened in a building within the compound of the Survey Department on Kaba-Aye Pagoda Road, off Thirimingalar Lane, Yankin Township, Yangon.

By Order No. 17/92 dated March 5, 1992, issued by the State Law and Order Restoration Council (SLORC), the Ministry of Agriculture and Forestry was reorganized into two separate ministries: the Ministry of Forestry and the Ministry of Agriculture and Irrigation. The Ministry of Forestry comprised the Minister's Office, Planning and Statistics Department, Forest Department, and Myanmar Timber Enterprise. On June 25, 1997, to more effectively implement greening operations in the Central Dry Zone of Myanmar, a new department, the Dry Zone Greening Department, was established and expanded. The office of its Director-General was opened in Mandalay Region. On August 1, 2004, the Survey Department under the Ministry of Forestry was transferred to the Ministry of Agriculture and Irrigation. Following this, on February 17, 2006, the Ministry of Forestry relocated its office to Building No. (28) in Nay Pyi Taw and commenced operations there. Commencing on September 6, 2011, pursuant to Notification No. 83/2011 of the President's Office, the Ministry of Forestry was renamed the Ministry of Environmental Conservation and Forestry. Starting from March 30, 2016, according to Notification No. 1/2016 of the Office of the President of the Republic of the Union of Myanmar, it was renamed the Ministry of Natural Resources and Environmental Conservation (MONREC).

Environmental conservation and forestry operations will be implemented through the following eleven (11) policies: (1) Conservation and protection of water, land, natural environment, and biodiversity. (2) Mitigation of climate change and support for agriculture through the conservation of natural forests and establishment of forest plantations. (3) Fulfillment of the basic forest product needs of rural communities. (4) Promotion of public participation and collaboration in natural environmental conservation and forest management. (5) Ensuring sustainable harvesting and utilization of timber and other forest products, and supplying the timber required by the public for house construction. (6) Minimizing wastage in the extraction and utilization of forest resources and promoting the development of wood-based industries. (7) Enhancing capacity building in the forestry and environmental sectors. (8) Implementation of environmental conservation activities. (9) Achieving environmental harmony and balance through the integration of environmental considerations into development processes (Environmental Mainstreaming). (10) Accurate surveying, mapping, and production of various-scale topographic maps required by the State. (Under the purview of the Survey Department). (11) Precise surveying and demarcation of the State's territorial boundaries. (Under the purview of the Survey Department)

3.2 Current Situation of Myanmar Timber Enterprise

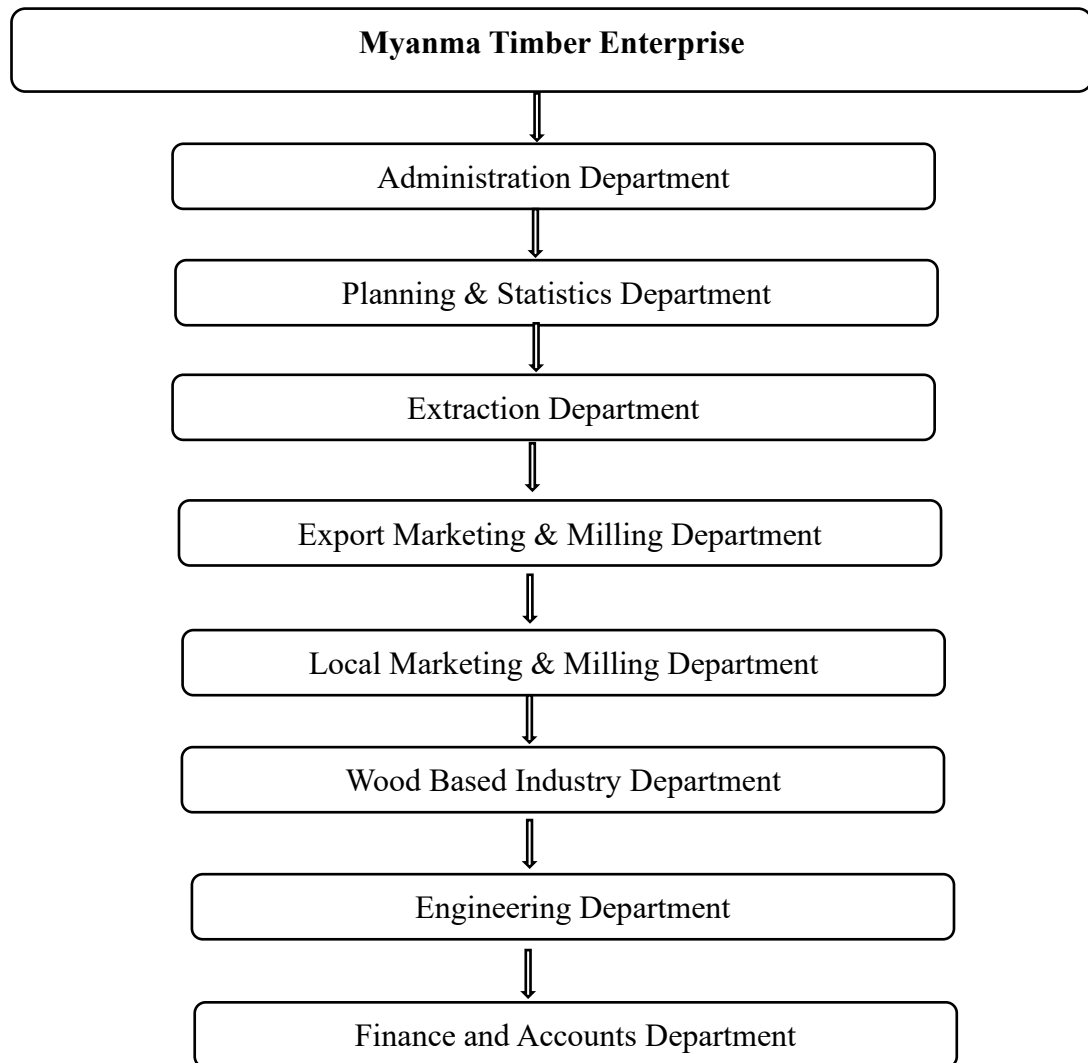
Since 1948, Myanmar Timber Enterprise (MTE) has operated as a state economic entity and is still in existence today. It has carefully carried out its responsibilities in various periods for more than 70 years, continuously contributing to state revenue without experiencing losses.

In the years following 1990, MTE stepped up its attempts to raise national treasury money, while the organization itself slowly increased in size.

However, harvesting and selling wood from natural forest resources is MTE's main business. As a result, forest resources—which are currently experiencing major changes—are essential to the enterprise's future. Wood output is continually being impacted by the degrading forests caused by a variety of issues, as well as the ongoing effects of environmental damage and climate change.

MTE's income decreases in step with the decline in timber production. This calls for an extensive review of the business's previously successful state. MTE must now be restructured into a more improved, strong, and efficient organization that can carry out operations in accordance with national policy in order to conform to current situations.

Table (3.1) Organizational Structure of Myanmar Timber Enterprise (MTE)



Source: Myanmar Timber Enterprise (MTE) 2025

Table (3.2) Distribution Status of Timber Logs by Fiscal Year

No.	Fiscal Year	Product	Local Distribution	Export Distribution
1	2020-2021	Teak Logs	8000	14000
		Hard Logs	70000	40000
2	2021-2022	Teak Logs	3000	20000
		Hard Logs	50000	50000
3	2022-2023	Teak Logs	10000	9000
		Hard Logs	30000	15000
4	2023-2024	Teak Logs	2000	6000
		Hard Logs	10000	10000
5	2024-2025	Teak Logs	4000	3000
		Hard Logs	29000	12000

Source: Myanmar Timber Enterprise (MTE)

3.2.1 Wood-based Industries Department

Under Myanmar Timber Enterprise (MTE) and the Ministry of Natural Resources and Environmental Conservation (MONREC), the Wood-Based Industries Department (TBID) is one of eight main departments. Its main duties include manufacturing wood-based final goods from teak and hardwood raw materials, distributing them to both local and overseas markets, and making sure that the desired amount of money is made both domestically and internationally.

High-value wood-based goods must be given importance by Wood-Based Industries Department in order to achieve this goal in the face of changing global market conditions and rising environmental conservation concerns. This strategy maximizes financial gains while reducing wastage of valuable forest resources.

In accordance with national economic policies, Wood-Based Industries Department will therefore:

Support the department and private wood-based industries to exchange technology and market information in a systematic method.

Develop cooperative development projects.

Promote coordinated sectoral growth, carry out all actions in accordance with MONREC's policy guidelines and directions.

Table (3.3) Statistical of Wood-Based Factories by State/Region

No	State/Region	Factory's Name	Products Categories
1	Sagaing	No 5 Plywood factory	Hardwood Veneer
2	Sagaing	No 1 Veneer factory	Hardwood Veneer
3	Mandalay	No 2-A Moulding factory	Parquet/finger joint
4	Mandalay	No 2-B Moulding factory	Parquet/finger joint
5	Yangon	No 1 Plywood factory	Veneer
6	Yangon	No 2 Plywood factory	Veneer
7	Yangon	No 1 Furniture factory	Wood furniture
8	Yangon	No 2 Furniture factory	High Value Lumber/Parquet
9	Yangon	No 3 Furniture factory	Wood furniture
10	Yangon	No 4 Furniture factory	High Value Lumber/Veneer
11	Yangon	No 5 Furniture factory	High Value Lumber/Parquet
12	Yangon	No 6 Furniture factory	High Value Lumber
13	Yangon	No 7 Furniture factory	High Value Lumber
14	Yangon	No 1 Moulding factory	High Value Lumber
15	Yangon	No 9 Furniture factory	High Value Lumber
16	Ayeyarwaddy	No 4 Plywood factory	Hardwood Veneer
17	Yangon	No 2 Plywood factory	Hardwood Veneer
18	Yangon	No 10 furniture factory	High Value Lumber
19	Yangon	No 3 Veneer factory	Hardwood Veneer

Sources: Wood-based Industries department(2025)

Table(3.4) Wood-based Department Production Output Status of Sawmills

No	Fiscal Year	Veneer (tons)	Parquet (tons)	High Value Lumber(tons)	Hardwood Plywood(tons)
1	2019-2020	14000	97.5	22750	17500
2	2020-2021	12600	91	20800	16100
3	2021-2022	12250	87.75	19500	15400
4	2022-2023	11200	78	18200	14000
5	2023-2024	10500	71.5	16250	12600

Source: Forest Trends Myanmar Sector Reports (2025)

3.3 Wood-based Industry Zone Shwe Pyi Thar in Yangon

Among the 8 major departments under Myanma Timber Enterprise, employees from the Local Marketing & Milling Department, Export Marketing & Milling Department, Wood-Based Industry Department, and Engineering Department located in the Shwepyithar Industrial Zone, as well as employees from various private factories, were interviewed. The factories and workshops of the Myanmar Timber Enterprise under the Ministry of Natural Resources and Environmental Conservation are located in Shwepyithar, Thanlyin, and Hlaing Townsh Pps. Among these, the factories are concentrated in the Shwepyithar Industrial Zone, which is why this location was chosen.

The wood-based industrial zone was established in 1996 with land allocation granted by the State Government. The zone is owned by the Ministry of Natural Resources and Environmental Conservation (MONREC) and operated by Myanma Timber Enterprise (MTE), where the majority of the timber sawmills and wood-based factories are located. Administrative matters are handled by the Industrial Zone Management Committee, while coordination and necessary affairs within the zone are carried out by the Zone Administration and Coordination Committee. Within the Shwe Pyi Thar Wood-Based Industrial Zone, there are 15 factories. These factories primarily produce timber-related products, which are distributed and exported both local and export. Main products manufactured by the Myanma Timber Enterprise are (1) Teak Conversion (2) Hardwood Conversion (3) Veneer(4) Wood Furniture (5) Parquet (6) High Value Lumber .

Table (3.5) Factories and products in the Shwe Pyi Thar Wood-based Industrial Zone

No	Factories Name	Products
1.	No 3 Saw Mill	Conversion
2.	No 4 Saw Mill	Conversion
3.	No 6-B Saw Mill	Conversion
4.	No 9 Saw Mill	Conversion
5.	No 7 Furniture Factory	Wood Furniture
6.	No 2 Veneer Factory	Veneer
7.	No 3 Veneer Factory	Veneer
8.	Wood Pellets Factory	Pellets
9.	Glue Factory	Wood Furniture
10.	Forest Products Joint Venture Corporation	Wood Furniture
11.	City Furniture Co.Ltd	Wood Furniture
12.	Taw Win Family Co.,Ltd	Wood Furniture
13.	Htoo International Industries Co., Ltd	Wood Furniture
14.	Myanmar Peltier Bois Ltd (1)	Wood Furniture
15.	Myanmar Peltier Bois Ltd (2)	Wood Furniture

Sources: Myanma Timber Enterprise (2025)

CHAPTER IV

SURVEY ANALYSIS

4.1 Survey Profile

This study targeted employees working within the timber industry in Shwe Pyi Thar Township, Yangon Region, Myanmar. The primary purpose of the survey was to explore their perceptions and experiences regarding governance, environmental sustainability, economic impact, community engagement, and working conditions within the industry. The structured questionnaire was distributed to a sample of workers from various roles and departments, including production, logistics, and administrative units, ensuring a representative cross-section of the workforce.

The survey results provide a comprehensive snapshot of the current state of the timber industry from the perspective of its workforce, offering valuable insights for policymakers, industry leaders, and sustainability advocates aiming to improve governance, sustainability practices, and working environments.

Table (4.1) Number of Workers in Shwe Pyi Thar Industrial Zone

No.	Factories Name	Employees
1	No 3 Saw Mill	12
2	No 4 Saw Mill	15
3	No 6-B Saw Mill	9
4	No 9 Saw Mill	7
5	No 7 Furniture Factory	11
6	No 2 Veneer Factory	10
7	No 3 Veneer Factory	10
8	Wood Pellets Factory	20
9	Glue Factory	7
10	Forest Products Joint Venture Corporation	11
11	City Furniture Co.Ltd	9
12	Taw Win Family Co.,Ltd	13
13	Htoo International Industries Co., Ltd	13
14	Myanmar Peltier Bois Ltd (1)	9
15	Myanmar Peltier Bois Ltd (2)	11
	Total	167

Source: GAD (2024)

Sample size is chosen based on 167 total population Based on that population, sample size estimation was done by using as below equation (Yamane, 1967). The resulting sample size needed is 116 to conduct the survey research.

$$n = \frac{N}{1 + N(e)^2}$$
$$n = \frac{167}{1 + 167(0.05)^2}$$

Therefore, n = 116 where,

n = sample size needed

e = level of precision (95% confidence level)

N= total population

The sample size needed to conduct is 116, the survey questions are distributed to the study area and only 110 respondents are answered very well. Therefore, 6 respondents answers are not considered to interpret in survey findings.

4.2 Survey Design

This survey aims to gather insights from employees working within the timber industry in Shwe Pyi Thar Township, Yangon Region, Myanmar, focusing on their perceptions and experiences related to governance, environmental sustainability, economic impact, community engagement, and working conditions. The structured questionnaire was designed to ensure a representative sample of the workforce, including employees from various roles such as production, logistics, and administrative positions. By collecting data from a diverse group of workers, the study seeks to understand how different job functions and professional experiences might influence employees' views on these critical issues.

The survey consists of two main sections: Part A focuses on collecting demographic information, including the respondents' age, gender, education level, job position, and years of experience in the timber industry. This section helps to contextualize the data and examine how personal and professional factors might influence employee perceptions. Part B uses a five-point Likert scale to assess attitudes and experiences concerning five key variables: Governance and Regulation, Environmental Sustainability, Economic and Livelihood Impact, Community and Social Engagement, and Challenges and Working Conditions. This structured approach allows for a detailed analysis of how employees perceive their working environment and the broader impact of the timber industry on local communities and the economy.

4.3 Survey Results

By studying this survey, the perceptions and attitudes of employees in the Wood-Based Industrial Zone, Shwe Pyi Thar Township, Yangon Region, regarding governance and regulation, environmental sustainability, economic and livelihood impacts, community and social engagement, challenges, and working conditions.

4.3.1 Demographic Characteristics of Respondents

The demographic information on respondents who work in Shwe Pyi Thar Township's wood industry is part of a study that looks at the character of the workforce in this industry. Age groups, education levels, job titles, years of service, employment kinds, and gender distribution are highlighted in the data. This demographic profile is essential for comprehending the social factors and labor structure of the local wood industry workforce, which can help with workforce development, industry planning,

and policymaking. In Shwe Pyi Thar Township, a significant industrial area in Yangon recognized for its wood-based manufacturing operations, the data also illustrates more general socioeconomic trends. These demographic insights aid in identifying differences and strengths in the workforce, directing plans to improve productivity and working conditions in Myanmar's wood sector.

Table (4.2) Demographic Characteristics of Respondents

Sr No	Gender	Frequency	Percent
1	Male	93	84.5
2	Female	17	15.5
	Total	110	100.0
3	Age		
	21-30	5	4.5
	31-40	33	30.0
	41-50	54	49.1
	Above 50	18	16.4
	Total	110	100.0
4	Education		
	Primary School	39	35.5
	High School	62	56.4
	Bachelor	9	8.2
	Total	110	100.0
5	Position		
	Assistant Manager	82	74.5
	Senior Assistant	11	10.0
	Supervisor	13	11.8
	Manager	4	3.6
	Total	110	100.0
6	Year of Service		
	Less than 1 year	15	13.6
	1 to 3 year	2	1.8
	4 to 6 years	21	19.1
	7 to 10 years	72	65.5
	Total	110	100.0
7	Employment Type		
	Full Time	51	46.4
	Part Time	59	53.6
	Total	110	100.0

Source: Survey Data (2025)

The demographic profile of the respondents reveals that the majority of employees in the wood industry in Shwe Pyi Thar Township are male, with 84.5% identifying as male and only 15.5% as female. Regarding age distribution, most respondents are between 41 and 50 years old (49.1%), followed by those aged 31 to 40 years (30.0%). A smaller proportion fall into the older age bracket above 50 years (16.4%), and only a few are younger, aged between 21 and 30 years (4.5%).

In terms of educational background, over half of the respondents (56.4%) have completed high school, while 35.5% have attained only primary education. A minority of 8.2% hold a bachelor's degree, indicating relatively low levels of higher education among the workforce. When looking at job positions, the vast majority (74.5%) work as assistants, with smaller numbers serving as supervisors (11.8%), senior assistants (10.0%), and a very limited number as managers (3.6%).

Years of service indicate that a significant number of respondents (65.5%) have been employed in the industry for 7 to 10 years, suggesting long-term engagement in the field. This is followed by 19.1% who have served for 4 to 6 years, 13.6% for less than a year, and only 1.8% with 1 to 3 years of service. Interestingly, the employment type data shows a fairly even split, with 53.6% working part-time and 46.4% employed full-time. This distribution suggests a flexible labor structure within the industry.

4.3.2 Reliability Analysis

The table presents the reliability statistics for five independent variables used in a questionnaire aimed at exploring the experiences and perspectives of employees in the wood industry in Myanmar. The reliability of each variable is measured using Cronbach's Alpha, a statistical coefficient that assesses internal consistency—how closely related a set of items are as a group. A Cronbach's Alpha value above 0.70 generally indicates acceptable reliability, while values above 0.90 suggest excellent consistency. Each variable in the table—Governance and Regulation, Environmental Sustainability, Economic and Livelihood Impact, Community and Social Engagement, and Challenges and Working Conditions—consists of five items.

This reliability analysis plays a crucial role in validating the questionnaire used in the study. High Cronbach's Alpha values demonstrate that the items under each variable are measuring the same underlying concept consistently. For instance, the variables "Governance and Regulation" ($\alpha = 0.922$), "Environmental Sustainability" ($\alpha = 0.939$), and "Economic and Livelihood Impact" ($\alpha = 0.904$) all exhibit excellent

internal consistency, ensuring that the questionnaire is both reliable and suitable for statistical analysis. The relatively lower, but still acceptable, values for “Community and Social Engagement” ($\alpha = 0.770$) and “Challenges and Working Conditions” ($\alpha = 0.789$) indicate that while these scales are reliable, there might be room for refinement or clearer item construction.

Analyzing the data shows that Environmental Sustainability has the highest reliability score (0.939), indicating very strong internal consistency among its five items. This suggests that respondents had very consistent perceptions regarding sustainability practices in the timber industry. Governance and Regulation (0.922) and Economic and Livelihood Impact (0.904) also showed excellent reliability, meaning these topics were well-understood and consistently rated by participants. Although Community and Social Engagement and Challenges and Working Conditions had slightly lower reliability values (0.770 and 0.789), they still meet the acceptable threshold for research purposes. These figures suggest that the questionnaire design is robust overall, enabling the researcher to confidently use the collected data for further statistical analyses such as factor analysis, correlation, or regression.

Table (4.3) Reliability Analysis

Sr. No.	Variables	Cronbach's Alpha	N of Items
1	Governance and Regulation	0.922	5
2	Environmental Sustainability	0.939	5
3	Economic and Livelihood Impact	0.904	5
4	Community and Social Engagement	0.770	5
5	Challenges and Working Conditions	0.789	5

Source: SPSS Output

4.3.3 Employees’ Perception on Governance and Regulation

Employees in Myanmar’s wood sector generally perceive governance systems as moderately effective, with an overall mean score of 3.89 and individual scores ranging from 3.82 to 3.92. Corruption’s impact on fair practices is the top concern (mean 3.92), while trust in government monitoring and regulation is high (3.91). However, lower scores for confidence in sustainability efforts (3.82) and policy communication (3.87) highlight concerns about long-term vision and transparency. This is shown in table 4.4 below

Table (4.4) Perception on Governance and Regulation

Perception on Governance and Regulation	Mean
The wood industry in Myanmar is effectively regulated.	3.91
Government monitoring and enforcement are adequate.	3.91
Corruption affects fair practices in the wood industry.	3.92
Regulatory policies are clearly communicated to employees.	3.87
I feel confident in the government’s efforts toward sustainability. (eg .Implementation of Pollution Control Measures, Support for worker Training and Safety Programs)	3.82
Overall	3.89

Source: Survey Data (2025)

The overall mean score of 3.89 suggests that employees in the wood industry generally agree that governance and regulatory frameworks are in place and functioning to some extent in Myanmar. The responses to individual items are closely clustered, with means ranging from 3.82 to 3.92, indicating a consistently moderate-to-positive perception across all aspects of governance. Notably, the highest agreement is seen in the statement “Corruption affects fair practices in the wood industry” (Mean = 3.92), suggesting a broad acknowledgment among respondents that corruption is a significant challenge despite regulatory efforts.

The item “The wood industry in Myanmar is effectively regulated” and “Government monitoring and enforcement are adequate” both share a mean of 3.91, reflecting a belief that formal structures for regulation and oversight are present and perceived as somewhat effective. However, slightly lower means for items like

confidence in the government’s sustainability efforts (Mean = 3.82) and communication of regulatory policies (Mean = 3.87) hint at concerns around the long-term vision and clarity in policy dissemination. These responses suggest room for improvement in transparency and engagement with frontline workers in regulatory matters.

4.3.4 Employees’ Perception on Environmental Sustainability

Employees in Shwe Pyi Thar Township’s wood sector generally agree their companies are committed to environmental sustainability, reflected by an overall mean score of 3.88. The highest rating (3.93) highlights strong anti-deforestation efforts, while individual scores (3.82–3.93) indicate consistently positive views. A lower score (3.82) for sustainability as a strategic priority suggests some gap between practice and organizational commitment, but high scores for training (3.91) and forestry practices (3.89) demonstrate operational sustainability. This is shown in table 4.5 below

Table (4.5) Perception on Environmental Sustainability

Perception on Environmental Sustainability	Mean
My organization follows sustainable forestry practices. (eg, Environmental Compliance and waste utilization)	3.89
There are efforts to reduce deforestation in my workplace. (eg, Reuse of waste and by products, Compliance with environmental protection regulations)	3.93
Employees are trained in sustainable wood processing methods.	3.91
The organization works in conservation efforts for the environment. (eg, Use of recycled and sustainable raw materials, Support for reforestation and plantation programs)	3.87
Sustainability is a priority in our company’s operations.	3.82
Overall	3.88

Source: Survey Data (2025)

The overall mean score of 3.88 indicates that employees in the wood industry in Shwe Pyi Thar Township generally agree that their organizations are making efforts toward environmental sustainability. The individual mean scores range from 3.82 to 3.93, reflecting a consistently positive perception, though with slight variation.

The highest mean score of 3.93 for the statement “There are efforts to reduce deforestation in my workplace” suggests that anti-deforestation initiatives are visible and possibly prioritized within the workplace environment.

Other items such as “Employees are trained in sustainable wood processing methods” (Mean = 3.91) and “My organization follows sustainable forestry practices” (Mean = 3.89) also received relatively high agreement, pointing toward a perceived commitment to operational sustainability and employee capacity building. However, the lowest mean score of 3.82 for “Sustainability is a priority in our company’s operations” may reflect a subtle gap between sustainable practices and organizational priorities, hinting that sustainability, while practiced, might not always be deeply embedded in the strategic direction of the company.

4.3.5 Employees’ Perception on Economic and Livelihood Impact

Employees in the wood industry generally view their work as having a positive impact on their economic well-being and livelihoods. With an overall mean score of 3.89, they feel fairly compensated, experience stable employment, and recognize contributions to the local economy. Slightly lower but still positive scores on job security and family livelihood suggest some concerns about long-term stability. This is shown in table 4.6 below

Table (4.6) Perception on Economic and Livelihood Impact

Perception on Economic and Livelihood Impact	Mean
The wood industry provides stable employment opportunities.	3.89
In comparison to the cost of living, my income is reasonable.	3.93
The industry has increased my family's income..	3.88
The industry offers an acceptable level of stability at work.	3.86
The wood industry contributes to the local economy. (eg, Employment generation, development of supporting industries)	3.89
Overall	3.89

Source: Survey Data (2025)

The overall mean score of 3.89 indicates that employees in the wood industry perceive a generally positive economic and livelihood impact from their work. Individual item means range narrowly from 3.86 to 3.93, demonstrating a consistent

agreement across various aspects of economic well-being. The highest mean score of 3.93 is for the statement “I earn a fair income compared to the cost of living,” suggesting that most respondents feel adequately compensated relative to their living expenses, which is a key factor in evaluating livelihood quality.

Perceptions are also strong for statements like “The wood industry provides stable employment opportunities” and “The wood industry contributes to the local economy” (both with Mean = 3.89), reflecting a shared view that the industry plays a significant role in both personal and community-level economic stability. Slightly lower scores, such as “Job security in the industry is satisfactory” (Mean = 3.86) and “The industry has improved my family’s livelihood” (Mean = 3.88), still fall within the "agree" range, but may suggest mild concerns about long-term job stability or broader household impacts.

4.3.6 Employees’ Perception on Community and Social Engagement

Employees view the wood industry’s community engagement positively overall (mean 3.87), with strong agreement on support, crisis aid, respect for rights, and worker participation. However, lower scores on incorporating community concerns into business decisions reveal a need for better local inclusion in planning to enhance social responsibility. This is shown in table 4.7 below

Table (4.7) Perception on Community and Social Engagement

Perception on Community and Social Engagement	Mean
The organization supports the local community. (eg, infrastructure and social services)	3.95
Community concerns are considered in business operations.	3.65
Workers are involved in decision-making processes.	3.91
The industry provides support during community crises.	3.91
I feel that the industry respects the rights of local people.	3.92
Overall	3.87

Source: Survey Data (2025)

The overall mean score of 3.87 reflects a generally positive perception among employees regarding the wood industry's engagement with the local community. The responses suggest that most workers believe their companies are contributing meaningfully to community well-being and maintaining respectful relationships with local populations. The highest agreement was found in the item "The company supports the local community" with a mean of 3.95, indicating strong recognition of corporate involvement in community development initiatives.

Statements such as "The industry provides support during community crises" and "I feel that the industry respects the rights of local people" (means = 3.91 and 3.92, respectively) further reinforce the perception that companies are responsive and respectful to community needs. Additionally, the statement "Workers are involved in decision-making processes" received a mean of 3.91, suggesting that employee voices are considered in organizational matters, which contributes to a sense of social inclusion and empowerment within the industry.

However, the relatively lower score for "Community concerns are considered in business operations" (Mean = 3.65) indicates a potential weakness in fully integrating community input into strategic or operational decisions. This item also had one of the higher standard deviations (0.629), pointing to some disagreement or uncertainty among respondents. Despite this, the overall low variability in responses (standard deviations mostly around 0.60) indicates a shared understanding among employees. In conclusion, while community engagement is perceived positively, efforts to more thoroughly incorporate local concerns into business planning could further enhance social responsibility.

4.3.7 Employees' Perception on Challenges and Working Conditions

Employees generally have a positive view of their working conditions in the wood industry, but job insecurity is a major concern affecting morale. They agree on safe workplaces and skill development support, and recognize the negative impact of illegal logging. Access to tools needs improvement. Overall, while conditions and training are good, job insecurity and illegal logging require urgent organizational and policy action. This is shown in table 4.8 below

Table (4.8) Perception on Challenges and Working Conditions

Perception on Challenges and Working Conditions	Mean
Working conditions are safe and healthy.	3.90
I have access to necessary tools and equipment.	3.72
My workplace is badly impacted by illegal logging. (eg. Shortage of legal wood supply, price instability and increased costs)	3.94
The company supports skills development and training.	3.90
The biggest challenge I face is job insecurity. (eg. Pressure to meet unrealistic production targets)	3.98
Overall	3.89

Source: Survey Data (2025)

The overall mean score of 3.89 suggests that employees in the wood industry generally have a positive perception of their working conditions, though there are some noteworthy challenges. The highest-rated item, “The biggest challenge I face is job insecurity” (Mean = 3.98), indicates that job stability remains a major concern for employees, despite otherwise favorable conditions. This high score implies that job insecurity is widely acknowledged and could be a significant factor affecting morale and long-term commitment in the sector.

Other aspects such as safe and healthy working conditions and company support for skills development scored 3.90, showing strong agreement among respondents that their workplaces maintain a safe environment and invest in employee capacity-building. Similarly, the item “Illegal logging negatively affects my work environment” scored 3.94, underscoring that external challenges like illegal practices have a noticeable impact on employees’ day-to-day experience and possibly job security.

While the score for access to necessary tools and equipment is slightly lower at 3.72, it still falls within the "agree" range, suggesting room for improvement in operational support. In conclusion, while employees report favorable conditions and training opportunities, concerns such as job insecurity and the effects of illegal logging highlight critical areas for organizational and policy-level intervention.

CHAPTER V

CONCLUSION

5.1 Findings

The findings from the demographic analysis of the 110 respondents reveal that the timber industry workforce in Shwe Pyi Thar Township is predominantly male and largely composed of middle-aged workers, particularly those between the ages of 41 and 50. Most employees have completed secondary education, with a small proportion having attained higher education qualifications. The majority hold assistant-level positions, indicating a workforce concentrated at the operational level rather than in supervisory or managerial roles. A significant number of respondents have extensive experience in the industry, reflecting a stable and long-serving workforce. Additionally, there is a relatively balanced distribution between full-time and part-time employment, suggesting a degree of flexibility in the industry's labor arrangements.

The analysis of descriptive statistics from the employee survey reveals that governance and regulation in Myanmar's timber industry is perceived with cautious optimism. Respondents rated items such as government monitoring and policy communication relatively high suggesting general confidence in regulatory systems. However, the mean for confidence in government sustainability efforts (3.82) is slightly lower, indicating that while regulations exist, their long-term impact and enforcement may not be fully trusted by employees.

With regard to environmental sustainability, employees reported a strong perception that their organizations prioritize eco-friendly practices. The overall mean reflects high awareness and participation in sustainable forestry, reduction of deforestation, and conservation activities. Training in sustainable methods and company initiatives demonstrate that the industry is making efforts to embed environmental responsibility in its operations, although slight variations suggest that such practices may not be uniformly applied across all workplaces.

For the economic and livelihood impact, respondents showed strong agreement that the wood industry provides stable employment, fair income, and local economic

benefits. Many workers believe that their jobs have improved family livelihoods and offer satisfactory job security. These results emphasize the industry's role in both household welfare and broader community development, particularly in regions like Shwe Pyi Thar Township where such employment can be a critical source of stability.

Community and social engagement was also positively perceived. Most employees agree that their companies support the community, respect local rights, and involve workers in decision-making. However, there is a slightly lower score for integrating community concerns into business operations (3.65), indicating a gap between outreach efforts and actual participatory engagement. This shows that while social responsibility is acknowledged, deeper inclusion of local voices remains an area for growth.

Finally, employees reported favorable views of working conditions and operational challenges. Safe working environments, access to training, and company support are valued, but concerns persist around job insecurity and the impact of illegal logging. These challenges highlight vulnerabilities in the sector that can undermine employee morale and industry sustainability if not addressed adequately.

5.2 Suggestions

To address the concerns revealed in the study, it is recommended that government agencies and industry regulators improve transparency and enforcement of regulations. Increasing public communication of policy frameworks and establishing independent anti-corruption mechanisms could build greater trust among employees and stakeholders. This would also help align regulatory efforts with sustainability goals in a more credible and impactful way.

Secondly, companies should deepen their commitment to inclusive decision-making and community participation. By actively incorporating feedback from local communities and employees in operational strategies, businesses can enhance their social license to operate and improve public perception. Strengthening community dialogue mechanisms and expanding CSR initiatives will ensure that local concerns are not only heard but acted upon.

Lastly, addressing job insecurity and the operational effects of illegal logging should be prioritized. Employers and policymakers should collaborate to stabilize

employment through contracts, benefits, and consistent wage structures, while also tightening enforcement against illegal logging. At the same time, scaling up skills training and providing adequate tools and resources will empower workers and increase productivity in a safer, more supportive environment.

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APPENDIX

(1) Teak Conversion

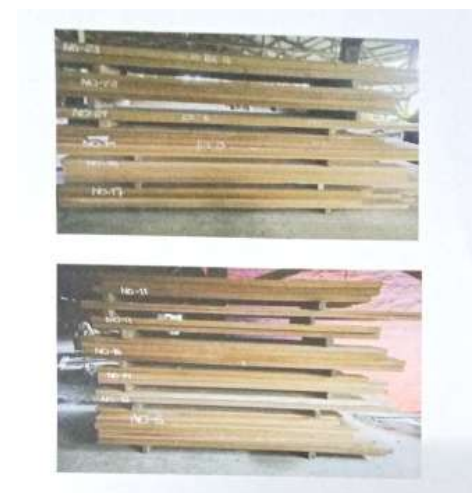


(2) Vanner



No	Product Name	Product Photo
1	Flatt Vanner	
2	Short Cut Vanner	
3	Full Vanner	

(3) High Value Lumber




(4) Wood Furniture

No	Product Name	Product Photo
1	ဝိတ်စင် (Wooden Chair)	
2	စာဖတ်စင် (Reading Chair)	
3	စားစာစင် (Dining Chair)	
4	အိပ်ခန်းစင် (Bedroom Chair)	
5	ပန်းစင် (Plant Chair)	

No	Product Name	Product Photo
1	အိပ်ခန်းစင် (Bedroom Chair)	
2	စားစာစင် (Dining Chair)	
3	ပန်းစင် (Plant Chair)	
4	စာဖတ်စင် (Reading Chair)	
5	ဝိတ်စင် (Wooden Chair)	

(5) Wood Pellet

No	Product Name	Product Photo
1	အုတ်စင် (Wood Pellet)	

**Questionnaire: Exploring the Experiences and Perspectives of Employees in the
Wood Industry in Shwe Pyi Thar Township, Yangon Region**

Part A: Demographic Information

(Please tick ✓ or fill in the blank where appropriate)

1. Gender

Male

Female

2. Age

Under 20

21–30

31–40

41–50

Above 50

3. Education Level

No formal education

Primary school

High school

Diploma/Certificate

Bachelor's degree or higher

4. Position in the Industry

Assistant

Supervisor

Manager

Other: _____

5. Years of Experience in the Wood Industry

- Less than 1 year
- 1–3 years
- 4–6 years
- 7–10 years
- More than 10 years

6. Employment Type

- Full-time
- Part-time

Part B: Perceptions on Industry Challenges and Sustainability

Please indicate your level of agreement with the following statements using the scale below:

Scale:

1 – Strongly Disagree | 2 – Disagree | 3 – Neutral | 4 – Agree | 5 – Strongly Agree

7. Perception on Governance and Regulation

Sr No	Perception on Governance and Regulation	Agreeable Level				
1	The wood industry in Myanmar is effectively regulated.	1	2	3	4	5
2	Government monitoring and enforcement are adequate.	1	2	3	4	5
3	Corruption affects fair practices in the wood industry.	1	2	3	4	5
4	Regulatory policies are clearly communicated to employees.	1	2	3	4	5
5	I feel confident in the government's efforts toward sustainability. (eg .Implementation of Pollution Control Measures, Support for worker Training and Safety Programs)	1	2	3	4	5

8. Perception on Environmental Sustainability

Sr No	Perception on Environmental Sustainability	Agreeable Level				
1	My organization follows sustainable forestry practices. (eg, Environmental Compliance and waste utilization)	1	2	3	4	5
2	There are efforts to reduce deforestation in my workplace.(eg, Reuse of waste and by products, Compliance with environmental protection regulations)	1	2	3	4	5
3	Employees are trained in sustainable wood processing methods.	1	2	3	4	5
4	The organization works in conservation efforts for the environment. (eg, Use of recycled and sustainable raw materials, Support for reforestation and plantation programs)	1	2	3	4	5
5	Sustainability is a priority in our company's operations.	1	2	3	4	5

9. Perception on Economic and Livelihood Impact

Sr No	Perception on Economic and Livelihood Impact	Agreeable Level				
1	The wood industry provides stable employment opportunities.	1	2	3	4	5
2	In comparison to the cost of living, my income is reasonable.	1	2	3	4	5
3	The industry has increased my family's income..	1	2	3	4	5
4	The industry offers an acceptable level of stability at work.	1	2	3	4	5
5	The wood industry contributes to the local economy. (eg, Employment generation, development of supporting industries)	1	2	3	4	5

10. Perception on Community and Social Engagement

Sr No	Perception on Community and Social Engagement	Agreeable Level				
1	The organization supports the local community. (eg, infrastructure and social services)	1	2	3	4	5
2	Community concerns are considered in business operations.	1	2	3	4	5
3	Workers are involved in decision-making processes.	1	2	3	4	5
4	The industry provides support during community crises.	1	2	3	4	5
5	I feel that the industry respects the rights of local people.	1	2	3	4	5

11. Perception on Challenges and Working Conditions

Sr No	Perception on Challenges and Working Conditions	Agreeable Level				
1	Working conditions are safe and healthy.	1	2	3	4	5
2	I have access to necessary tools and equipment.	1	2	3	4	5
3	My workplace is badly impacted by illegal logging.(eg. Shortage of legal wood supply, price instability and increased costs)	1	2	3	4	5
4	The company supports skills development and training.	1	2	3	4	5
5	The biggest challenge I face is job insecurity. (eg. Pressure to meet unrealistic production targets)	1	2	3	4	5