

Analysis of Employability Skill Gap in the Unorganised Manufacturing Sector

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Abstract

Industrialisation is essential for economic growth. Unorganised manufacturing industries such as handloom, handicraft, and wooden furniture significantly provide employment opportunities. The sector's development depends on the productivity of workers' skills. However, skill gaps often arise when workers' skills do not match the requirements of the industries. To examine this, primary data have been collected from employers and employees in selected industries in Manipur. The primary objective is to analyse the employability skill gap in the unorganised manufacturing sector. The study found the existence of a skill gap in the sector, hindering industrialisation and economic growth. While workers have industry-specific skills, there is a significant lack of common skills such as advertising, digital design, and accountancy. This shortfall negatively impacts the sustainability and growth of the industries. Thus, on-the-job training and apprenticeship programs are essential for industrial workers, particularly in the small and unorganised manufacturing industries. Additionally, improving technical and vocational institutions and integrating them with schools is necessary to enhance students' technical skills and promote entrepreneurship and self-employment.

Keywords: Skill Gap, Employability, Manufacturing Industries, Handloom, Handicraft, Wooden Furniture, Skill Training

Introduction

Industrialisation is often considered a vital catalyst for economic growth. It plays a significant role in production, employment, investment, and capacity utilisation. The advancement of the industrial sector is highly dependent on a workforce of skilled employees who possess the necessary competencies to effectively address the diverse demands of various industries. Skills are defined as the

ability to do something well that encompasses mental and physical proficiency or competency (Attewell, 1990). They constitute a vital source of well-being and flourishing in society that enables action across a broad array of life domains and is a central ingredient of capabilities (Heckman & Corbin, 2016). Skills are cultivated through talent and training or practice that develops skill sets that add value to the organisation and career development (Katole, 2020). This underscores the necessity for workers to enhance their employability skills in order to secure employment and improve their living conditions. Employability skills are acknowledged as significant policy tools to upgrade mobility and earnings (Sisodia & Agarwal, 2017). Consequently, skills and competencies of workers are essential elements of employability in the economy, particularly in the industrial sector.

The production capabilities and innovative advancements of industries are also dependent on the skill levels of the workforce. Highly skilled labour tends to be more productive in the labour market (Heckman & Corbin, 2016). It implies that skilled workers are more likely to have better jobs and higher incomes, which allow them to have higher living standards. It necessitates employees to adapt required skills promptly in order to sustain competitiveness. However, the youth are encountering difficulties in obtaining employability skills and essential competencies required to succeed in various industry sectors (Malik & Venkatraman, 2017). The challenges in the skills and competencies of workers are unable to meet the requirements of the industries that consequently lead to a skill gap in an economy.

The economic progress of a nation or state may be impeded by various factors, notably the existence of a

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skill gap within the sector. A skill gap obstructs economic growth and hampers the inclusive development of the economy as a whole (Basavapattan, 2021). This gap is defined as the gap between the skills of workers and employer expectations (Radermacher, Walia & Knudson, 2014). As a result, a mismatch occurs between the skills provided by the workforce and the demands of industries within the economy. This misalignment negatively impacts productivity levels and the generation of innovative ideas among workers in the industrial sector, as skills are essential for the effective execution of work-related tasks. The shortage of skilled labour across various industry sectors is impeding the growth of Indian industries (Malik & Venkatraman, 2017). Thus, the skills gap undermines the sustainability and productivity of industries, ultimately obstructing income growth for these industries in general and for workers in particular.

The unorganised manufacturing sector holds a substantial position within India's industrial landscape. It refers to household-based manufacturing activities as well as small-scale and micro-industries (Diwaker & Ahamad, 2014). These unorganised industries encounter common constraints that adversely impact their development. According to NCEUS (2009), they face significant limitations in accessing capital, productive assets, education and training, infrastructure services, market knowledge, technical assistance, organisational capacity, bargaining power, and competition from both one another and larger entities. The Indian manufacturing sector faces low productivity issues despite access to a large pool of affordable, low-skilled labour, primarily due to the dominance of small firms that restrict economies of scale (Joumard, Sila & Morgavi, 2015). This indicates that challenges related to the recruitment of required skilled personnel or a shortage of skills have emerged as a significant issue for this sector. Industries make a significant contribution to a state's economy in terms of job creation and production.

The Ministry of Micro, Small, and Medium Enterprises (MSME) classified both manufacturing and service industries mainly based on the size of their investment and turnover. As per the MSME (2020) in the revised criteria on 1st July 2020, the investment in plant and machinery for 1) micro-enterprises should be less than one crore rupees, 2) small enterprises between one and 10

crore rupees, and 3) medium enterprises between 10 to 50 crore rupees. In Northeast India, Manipur is a relatively small and industrially underdeveloped state. Between 1990–91 and 2000–01, the state experienced a decline in the primary sector and growth in the tertiary and secondary sectors, which were driven by manufacturing industries, particularly handlooms and handicrafts (Gonmei, 2013). Over the subsequent years, the state has experienced sluggish growth in the industrial sector. With the exception of cottage and village industries, all the industries fall under the category of micro or small-scale industries in the state (DES Manipur, 2021).

Manipur possesses a rich heritage of products, including bamboo crafts, furniture, and jewellery, which significantly contribute to India's handloom and handicraft sector (Garg, Gupta & Joshi, 2021). The industrial landscape continues to reflect the prominence of traditional skills and industries within the state. It also shows a lack of medium- and large-scale manufacturing industries that could provide a greater number of employment opportunities in the state. Concurrently, the state is recognised as one of the low per capita income states in India. The per capita Gross State Domestic Product (GSDP) at current prices for the fiscal year 2019–20 was Rs. 85,307, which is comparatively lower than the national average of Rs. 1,34,226 for India (DES Manipur, 2021). The underdeveloped state of its industrial sector is one of the primary causes of the state's low income.

Based on previous studies and reports, it has been established that skills and competencies are critical for the advancement of the industrial sector, which subsequently contributes to economic growth. Consequently, the shortage in employability skills presents a substantial barrier to the development of industries, particularly within the unorganised sectors. In Manipur, cottage and traditional industries represent the primary sectors thriving in terms of employment opportunities. It refers to a state characterised by industrial underdevelopment and a deficiency of medium- and large-scale industries. The industrial underdevelopment and slow growth of small-scale industries present considerable challenges for the state. In this context, the unorganised manufacturing sector has emerged as a significant area of focus, primarily due to the absence of medium and large-scale industries. The manufacturing industries include such as handlooms,

handcrafts, and wooden furniture works, considering their significant role in terms of employment in the state.

A pertinent question emerges: Is there a significant disparity between the skills required by industries and those possessed by the available workforce? In other words, does an employability skills gap exist within the unorganised manufacturing sector in the state? This paper aims to analyse the skill levels of workers in relation to the competencies required by selected industries, including handlooms, handicrafts, and wooden furniture works. The primary objective is to analyse the employability skill gap among workers in the unorganised sector. Additionally, the study seeks to identify the skills and competency levels of the workers and examine any mismatches or shortages of skills.

Methodology and Data Source

The study is based on primary data collected in Manipur. To fill the data gap and support the primary findings, it also incorporates secondary data from published literature and reports from the state government. Manipur is topographically divided into hills and valleys, and primary data was collected from both areas. According to the DES Manipur (2021), Imphal West recorded the highest number of enterprises registered under Udyog Aadhaar, with 7,767 among the valley districts. Among the hill districts, Churachandpur reported the highest, with 1,172 enterprises. Considering this, these two districts have been selected for the primary field survey, which was conducted in February 2022. It took a reference period of one year preceding the date of the field survey to understand workers' skill levels and the shortage and

mismatch of skills possessed by workers and required by employers.

The handloom industry was divided into three categories based on the number of looms and workers. Industries in Category A refer to an industry having fewer than ten looms and workers; those in Category B with ten to thirty looms and workers; and those in Category C include industries that have more than thirty looms and workers. The handicraft industry was divided into two categories based on the types of establishments. Industries in Category A are manufacturing units run by individuals, while those in Category B are run by a group of people or society. The wooden furniture industry was classified as 1) raw wood manufacturing and 2) ready-made fitting of unfinished products exported from Myanmar. From these industries, one industry from each category has been drawn for the study. Thus, there are six handloom industries and four industries each for handicrafts and wooden furniture.

A case study was adopted with the view of obtaining requisite skills by the industries and intrinsic characteristics related to the skills possessed by the workers due to the limited availability of secondary data. The industries include handlooms, handicrafts, and wooden furniture works. These are the industries in which the vast majority of industrial and skilled workers are employed and engaged for a living. They were drawn purposively for the study based on their peculiar characteristics to address the objective of the study. Data were collected using unstructured personal interviews. The study purposively selected 14 employers and randomly selected 34 respondents from employees, varying by industry and its category.

Table 1: Number of Respondents from Each Category of Industry

Industries	Category	No. of Employers			No. of Employees		
		Hills	Valleys	Total	Hills	Valleys	Total
Handloom	A, B, and C	3	3	6	10	10	20
Handicraft	A and B	2	2	4	3	3	6
Furniture	A and B	2	2	4	4	4	8
Total	-	7	7	14	17	17	34

Sources: Primary field survey, Manipur (February 2022).

Using primary data, the study analyses the employability skill gap in selected industries (Table 1). The data are interpreted descriptively and substantiated with existing

empirical literature to address the research questions and objectives and draw inferences. Based on its findings, the study suggests policy implications.

Conditions of Manufacturing Industries

In Manipur, the secondary or industrial sector accounted for 11.56 percent of the GSDP at current prices in 2019–20. Within this sector, manufacturing holds a significant

position. Notwithstanding the state's rich mineral and forest resources, the rate of industrialisation has been markedly slow. The sector-wise share of the secondary sector from 2017–18 to 2019–20 are presented in Table 2.

Table 2: The Secondary Sub-Sectors Share (%) of GSDP at Current Prices in Manipur

(Rupees in lakhs)

Sub-Sectors	2017–18		2018–19 (Q)		2019–20 (A)	
	(Rs.)	(%)	(Rs.)	(%)	(Rs.)	(%)
Manufacturing	61998	18.61	65361	19.31	67483	18.87
Electricity, gas, water supply & other utility services	59750	17.94	53103	15.69	63507	17.76
Construction	211321	63.45	220076	65.01	226659	63.37
Secondary (Total)	333069	100.00	338540	100.00	357649	100.00

Source: DES Manipur, 2021.

Notes: Q - Quick Estimates and A - Advance Estimates.

In the secondary sector, the contribution of manufacturing demonstrated fluctuations during 2017–18 to 2019–20. It remains relatively lower than that of the construction sector, while being marginally higher than the contributions from electricity, gas, water supply, and other utility services throughout the observed period. The condition of selected manufacturing industries such as handloom, handicrafts, and wooden furniture are discussed in this section.

Handloom Industry

The handloom industry is one of the prominent industries that employs significant numbers of educated and uneducated women in Manipur. It is the largest traditional cottage industry, providing avenues of employment opportunities to the people of the state (DES Manipur, 2021). Handloom weaving functions not only as a symbol of status among women but also plays a crucial role in the socio-economic framework of the state. This industry is predominantly practiced in small-scale units with minimal investment, reflecting its traditional cottage industry status. Additionally, it is characterised by a rich legacy of exceptional handloom weaving that is evident throughout the state. Manipur is renowned for its handloom production. However, the majority of handloom industries consist of small-scale production units, with only a few capable of offering training in addition to their manufacturing activities.

For this present study, the handloom industry is divided into three categories based on the number of looms and the

number of workers. Industries in category A have fewer than 10 looms and workers; those in Category B have 10 to 30 looms and workers; those in Category C have more than 30 looms and workers. The category-A industries are mostly run and managed by individuals as production units for clusters or larger industries and showrooms. As a production unit, it links with other industries mainly for marketing. The Categories B and C industries acted as production units as well as training centres. They are run by NGOs, community-based, and church-based organisations, whereas handloom cooperative societies and corporations exist in the valley.

As per the employers of handloom industries, Categories B and C, their main aims are to impart weaving skills and provide employment that can improve the livelihood conditions of trainees and weavers. Some of them stated that they avail themselves of loan facilities provided from the available commercial banks. However, the handloom industry classified under category A, as well as the majority of those in categories B and C in the hills, have not received loans or grants from banks and government sectors.

Handicraft Industry

The bamboo and cane handicraft industry constitutes a traditional sector that flourishes in the state. However, the industry primarily relies on traditional tools and techniques due to a lack of capital. The craftsmen are also predominantly dependent on traditional skills, as the

majority of them do not have formal training. Despite this, the handicraft industry has manufactured a variety of products using split cane and bamboo materials, which have been meticulously processed into high-quality rope. Its products mainly include daily utility items and decorative pieces, serving practical household purposes. In the past, industry owners reported that handicraft products like baskets, mats, and simple chairs were primarily used as necessities in homes and agricultural settings. Nowadays, the purpose of handicraft items has expanded beyond basic needs to include both basic necessity and decorative pieces, such as flower stands, pen holders, picture frames, fruit and vegetable baskets, hair clips, vases, containers, and other similar items.

The diversification of handicraft products has made a substantial contribution to market expansion, thereby encouraging skilled artisans to establish handicraft industries. In the state, the existing industries operate on a relatively modest scale in terms of investment, production capacity, and workforce size. Consequently, the handicraft industry can be categorised into two distinct classifications based on the number of employees and the nature of the establishments. Category A encompasses industries operated by individuals who employ family members as labourers, while Category B comprises industries managed by groups or societies that engage hired skilled workers.

Despite the abundant availability of raw materials such as bamboo and cane in the hills, the handicraft industry has widely flourished in the valley areas in terms of production scale and number of employees. In the valley, industry owners and managers reported selling their products in both local markets and outside the state, while those in the hills mentioned only selling at local markets. This suggests that valley industries have more effective production strategies, better market connections, advertising, and a larger consumer base both within and outside the state. However, industries in the hills have mostly sold their products in their local markets due to a lack of market linkages. The majority of industries have sought loans from commercial banks to purchase modern industrial tools and equipment. Only a few of them have received bank loans to strengthen and upgrade their industries. However, some of them did not get such loans due to a lack of the required documents and the difficulties

of the loan process. Some received loans from the NGOs, but the loan amount could not meet the required amounts to sustain and expand the industry. Thus, the shortage of financial capital has appeared as the primary challenge for the handicraft industry.

Wooden Furniture Works

The wooden furniture industry plays a crucial role in employment generation, particularly for menfolk. It is widely established that the raw materials necessary for this industry are more readily accessible within the state compared to steel, iron, and plastics. In Manipur, there exists a considerable demand for wooden furniture, which is sought after for various household needs, decorative purposes, and as gifts, especially during ceremonies such as weddings and other customary events. However, industry managers indicate that the market for wooden furniture is primarily limited to local consumers within the state. This industry is typically owned and managed by individuals who have received both formal and informal training from parents and elders and who also possess extensive work experience.

Based on the preferences of the residents of the state, several prominent types of wood are deemed suitable for furniture production. These include teak, as well as locally recognised varieties such as *uningthou*, *leihao*, *chalpi*, *hol*, *vong*, *yangou*, and *khangra*. Among these, teak is regarded as one of the most expensive and sought-after options. However, due to its scarcity in the state, it is primarily imported from Myanmar via Moreh town. Considering this, the industry can be categorised into two distinct segments: A) raw timber manufacturing and B) ready-made fittings of unfinished wooden products imported from Myanmar.

Category A of industry is significantly reliant on locally sourced timber and the initial stages of manufacturing processes. It is heavily dependent on human physical strength, skill, and machinery. Conversely, the Category B industry deals with the fitting of rough, ready-made wooden materials by innovating the designs, sizes, polishing, and finishing processes. This sector is capable of producing larger quantities and delivering products to customers more rapidly, as its operational processes are comparatively simpler than those of Category A.

However, it necessitates a greater investment for the procurement of raw materials, which are often imported from Myanmar. In both categories, employees extensively utilise mechanical power machinery to enhance efficiency and save energy, thereby necessitating a dependable supply of electricity. In situations where public electricity supply is unavailable, private power generators are utilised, resulting in additional energy costs.

Skills of Workers in the Unorganised Manufacturing Sector

In the unorganised manufacturing sector, the employees (workers) possess basic and specific skills with respect to their production process in each industry. They also possess other basic skills which are required in some other industries through informal training.

Table 3: Distribution (%) of Respondents' Educational Levels and Formal Training

Particulars	Hills		Valleys		Total	
	(No.)	(%)	(No.)	(%)	(No.)	(%)
Below Matriculate	9	52.94	7	41.18	16	47.06
Matriculate	5	29.41	6	35.29	11	32.35
Higher Secondary	3	17.65	4	23.53	7	20.59
Total	17	100.00	17	100.00	34	100.00
No formal training	13	76.47	10	58.82	23	67.65
Undergone formal training	4	23.53	7	41.18	11	32.35
Total	17	100.00	17	100.00	34	100.00

Sources: Primary field survey, Manipur (February 2022).

In Table 3, the highest educational attainment for the majority of workers (47%) is below matriculation, which is higher in the hills at 53 percent compared to 41 percent in the valleys. Conversely, the proportion of workers with higher secondary education and above is the lowest in both areas and lower in the hills. Surprisingly, the majority (68%) have not undergone any formal training related to their work process. Table 4 presents the monthly income and family size, regardless of industry.

Table 4: Respondents' (Workers) Monthly Income and Family Size

Particulars	Hills	Valleys	Total
Average family size (Persons)	5.8	4.3	5.1
Average monthly income (Rs.)	9273	13805	11539

Sources: Primary field survey, Manipur (February 2022).

The workers' average monthly income is Rs. 11,593, which is lower in the hills compared to the valleys. Many workers indicate that this amount is insufficient to meet their family needs and expenses. Despite the lower income, family sizes are larger in the hills, suggesting poor living conditions. The following section discusses additional data collected from employees and employers in the selected industries.

Skills of the Handloom Weavers

In the handloom industry, a significant majority of weavers, comprising 95 percent, are women. Among the weavers, the majority 71 percent, have acquired their handloom weaving skills through formal training at handloom training centres. Conversely, the remaining 29 percent of weavers have acquired their skills informally, primarily through on-the-job experiences with parents and peers. Notably, some of these individuals have previously developed skills in hand weaving, particularly through instruction from their mothers and peers. Nevertheless, they demonstrate a remarkable aptitude for quickly learning handloom weaving skills and techniques.

As per the owners and managers of the industries, there are no visible differences in the skills and competencies of the weavers who have had formal and informal training. The majority of skilled weavers have the knowledge and skills to produce various types and designs of traditional attire, such as fitting the threads in the looms, fitting graphed designs on shawls, colour mixing, and other production skills. As expected, weavers who have more years of experience have higher competency levels and spend less time on production. They do not have specific working hours, as they are paid per piece of product and

the types of shawls they produce. Accordingly, their daily wage ranges between Rs. 270 and Rs. 500. The majority of the weavers stated that their wages were unable to meet their family expenses, especially for widows and women-headed households. Additionally, the prices of their products are determined by intermediaries, thereby obligating them to sell at the established market rates. Handloom weavers face challenges in earning a sufficient daily income, which affects their ability to support their children's education and health.

Irrespective of the categories, the handloom industries in the hills generally produce their traditional tribal shawls and attires, which have the highest local market demand. However, valley industries have larger marketing facilities and produce various designs of handloom products for trending fashions, including tribal and non-tribal shawls and attires. Moreover, the existing industries produce similar types of products. This implies that the innovation ideas, marketing skills, and competency levels of the workers in the valley appeared greater as compared to those in the hills.

Market competition is highly based on skills in colour mixing and innovative designs of the products. It has become challenging for less-educated employers and employees to bring out new computerised graph designing and introduce new trending fashions. It largely affects the handloom industries in the hills to expand the market, as traditional shawls are their main product. However, based on skills and competencies, the majority of weavers fulfilled the weaving expectations of the employers and were highly competitive in both the hills and valleys.

Bamboo and Cane Handicraft Skills

Bamboo and cane are extensively used in the production of handicraft items in Manipur. Traditionally, menfolk inherit and possess basic skills for crafting daily household items from these materials, owing to their abundant availability. Among handicraft workers, only 31 percent of craftsmen in the hills and 36 percent in the valley have received formal training provided by NGOs, the Ministry of Culture, and the Ministry of MSME. However, the majority of craftsmen acquire their skills informally through peers, co-workers, family elders, and relatives while engaged in industrial work and domestic settings. As a result, they are predominantly familiar with traditional tools, including knives, chisels, pointed

rods, and other handmade equipment, as well as a limited number of basic power tools. The lack of advanced power tools and machinery hinders both the competency levels and the efficiency of the work process. The primary skills involved in the handicraft production process encompass cutting materials into pieces and slices, squeezing and curling, polishing, varnishing, painting, and other specific skills.

In category A industries, except for one or two craftsmen, the rest are unskilled and engage in various manufacturing processes under the supervision of the skilled craftsmen. Moreover, they often exhibit a deficiency in innovation, as their specialisation in specific production items results from insufficient training and exposure. The majority of handicraft products, with the exception of those commissioned by customers and larger industries, are sold by themselves. Sometimes, they are compelled to sell their goods at reduced prices due to economic pressures and to clear the stock. This situation indicates a deficiency in effective marketing skills and strategies. Thus, lack of marketing facilities and financial capital are the most significant barriers to the industry's long-term viability and expansion. The Category B industries have an average of four to five workers in the hills and seven to eight workers in the valley. These industries produce a greater variety of items as they employ competent workers with expertise in different items.

According to the owners and managers of the handicraft industry in Category B, when they receive bulk orders from larger customers, they outsource services to smaller industries to fulfil that demand. Moreover, when the industry is unable to complete the order on time, it shares the ordered items with smaller industries. Such bulk demands enable the industry as well as the workers to increase their income and further help them to improve their living conditions. Additionally, if an industry receives a bulk demand with a monetary value of one lakh within a fixed time. Then the workers give extra effort to complete it as per the time fixed by the customers. It is compensated with an incentive of Rs. 100–150 per day in addition to their salary.

Regardless of their category, owners and managers of industries in the valleys reported supplying their products to showrooms both within and outside the state. In contrast, owners and managers of industries in the hills mentioned that they sell their products in local markets due to high

transportation costs. This witness that valley industries have better marketing facilities, greater demand, and are well connected with handicraft showrooms for most of their products. Industries in the hills are constrained by higher transportation costs to deliver their products to such showrooms. This affects the industry's ability to employ a larger number of workers and further impacts extension and growth, particularly in the hills. Despite this, the majority of handicraft workers have the required skills and competencies for the industry.

Skills of the Workers in Wooden Furniture Works

In wooden furniture works, the skills and competency levels of the workers were measured in terms of their ability to carry out the work process assigned to them. Employability skills for wooden furniture work include the skills of using tools and equipment safely, selecting the proper tools for a particular task, taking measurements by using the appropriate measuring scales and tools, interpreting blueprints and drawings, measuring and cutting the timber according to the required dimensions and angles, making appropriate joints for stability and strength, fixing glasses and mirrors according to customer requirements, and estimating the total cost involved in the production of a product.

Regardless of their category, owners and managers of the wooden furniture industry noted that only 20 to 30 percent of their employees submitted documents verifying the completion of formal training at the time of recruitment. The majority of employees are hired as fresh recruits and learn on the job. It is found that only a few have completed formal training under Industrial Training Institute (ITI) programmes and NGOs. This implies lack of formal training among the workers that hinders bringing out new ideas and trending designs of furniture. The majority of workers are less educated and acquire skills informally due to the poor socio-economic circumstances of their families, which means they are

compelled to earn a livelihood rather than attend formal training. They acquired skills in the workplace from co-workers and employers. Most of them were quick in learning the work process and how to handle machines and tools within two to three months.

The employers reported that workers receive some allowances during their first six to seven months as trainees. After completing either formal or informal training, workers are paid daily wages based on their competency levels and years of experience. The daily wages range from Rs. 400 to Rs. 700, indicating that these wages are insufficient to support their families. Furthermore, most of these workers come from poor economic backgrounds and face difficulties in spending on health, education, and other daily necessities, especially during times of health issues. Typically, they work an average of eight to nine hours per day. According to the owners and managers of the industry, the majority, 67 percent of their workers from both the hills and valleys possess the requisite and expected skills. This means that the workers are able to carry out the work processes independently and with the desired quality according to the provided blueprints.

Employability Skills Mapping and Gap Analysis

The term skill gap refers to a shortage and mismatch of skills among the workforce. Skills shortage refers to insufficient graduates at a particular level of education, and skills mismatch refers to a lack of skills to fill the position (Aring, 2012). Consequently, the employability skill gap represents the disparity between the supply of skills (possessed by workers) and the demand for skills (required by industries), which encompasses the qualifications and competencies sought by industries. The main or specific skills, along with their corresponding sub-skills and competencies of the workers, are detailed in Table 5, accompanied by their respective codes.

Table 5: List of Main and Sub-Skills Required by Industries and Possessed by Workers

Codes	Main/Specific Skills	Code of the Sub-Skills
A	Marketing skills	A ₁) Communication, A ₂) calculating, A ₃) social media and A ₄) digital advertising skills.
B	Management skills	B ₁) Resources management, B ₂) book-keeping, and B ₃) accountancy.
C	Ability skills	C ₁) quick learning, C ₂) ability to carry out innovative ideas, and C ₃) safe use of tools and equipment

Codes	Main/Specific Skills	Code of the Sub-Skills
Hw	Weaving skills	Hw ₁) fitting threads in looms Hw ₂) measurement, Hw ₃) draw freehand designing, and Hw ₄) graphic computerised designing
Hc	Crafting skills	Hc ₁) measurement, Hc ₂) cutting into pieces and slices, Hc ₃) squeezing and curling, Hc ₄) polishing, and Hc ₅) varnishing and painting
F	Carpentry skills	F ₁) measurement, F ₂) cutting, F ₃) fitting appropriate joints, F ₄) polishing, F ₅) interpreting and drawing blueprints, and F ₆) computerised designs and blueprints

The skills possessed and those required vary across different industries and they are also influenced by the extent of skill shortages and mismatches. In order to identify the employability skill gap, the study has systematically mapped the skills possessed by workers against those required by employers within the selected manufacturing industries such as handlooms, handicrafts, and wooden furniture works.

Regardless of the industry, employers require proficiency in marketing (A), management (B), and technical skills (C) as basic competencies, particularly in an unorganised

sector where the allocation of tasks is not distinctly segregated among various sections. Thus, these basic employability skills are generally anticipated to be possessed by employees. However, specific skills such as weaving (Hw) are particularly required in the handloom industry. Likewise, crafting skills (Hc) are essential for the handicraft industry, and carpentry skills (F) are requisite for the wooden furniture industry. A matrix of skills required by the selected unorganised manufacturing industries and the skills possessed by industrial workers in the state is cross-tabulated in Table 6.

Table 6: Matrix of Skills Required (Column) by the Industries with the Skills Possessed (Row) by Workers in Manipur

Industries	Handloom	Handicraft	Wooden Furniture	Others
Handloom	Hl ₁ , Hl ₂ , Hl ₃ , (Hl₄) A ₁ , A ₂ , (A₃) B ₁ , B ₂ , (B₃) C ₁ , (C₂) , C ₃	<i>Hc₁, Hc₂, Hc₄, Hc₅</i>	-	-
Handicraft	<i>Hl₁, Hl₂, Hl₃, Hl₄</i>	Hc ₁ , Hc ₂ , Hc ₃ , Hc ₄ , Hc ₅ A ₁ , A ₂ , (A₃) B ₁ , B ₂ , (B₃) C ₁ , C ₂ , C ₃	F ₁ , F ₂ , F ₃ , F ₄	-
Wooden Furniture	-	<i>Hc₁, Hc₂, Hc₄, Hc₅</i>	F ₁ , F ₂ , F ₃ , F ₄ , F ₅ , (F₆) A ₁ , A ₂ , (A₃) B ₁ , B ₂ , (B₃) C ₁ , C ₂ , C ₃	-
Others	-	-	-	-

Sources: Primary field survey, Manipur (February 2022).

Notes: 1) The code numbers of the skills are given in Table 1. 2) Bold letters and figures in the parenthesis are shortage skills.

3) Additional skills are italicised.

In the handloom industry, weavers are equipped with a diverse array of specialised skills, including the ability to fit threads in looms (Hw₁), measure shawls for weaving (Hw₂), and draw freehand designs (Hw₃). However, there is a notable shortage in a specific skill of graphic computerised design (Hw₄). This implies that this skill (Hw₄) is not possessed by the majority of weavers. The

supply shortage was caused primarily by the fact that a significant proportion of weavers acquire their working skills through informal training and possess a low level of education. Concurrently, employers are actively seeking weavers who possess this particular skill set to enhance the production of new and innovative designs.

The handloom industry is also facing a significant shortage of essential skills such as social media marketing (A_3) accountancy (B_3), and ability to carry out innovative ideas (C_2). This adversely impacts the sustainability and growth of the industry, as these employability skills and competences are crucial for effective marketing and management practices. With the exception of two handloom industries in the valley that have successfully marketed their products outside the state through the Manipur Handloom Cooperative Society and various NGOs, the majority of these industries primarily sell their products in local markets. This further hinders opportunities for product expansion and the creation of employment.

In the handicraft industry, artisans possess specific skills such as measurement (Hc_1), cutting into pieces and slices (Hc_2), squeezing and curling (Hc_3), polishing (Hc_4), and varnishing and painting (Hc_5). However, the industry is experiencing a significant shortage of essential skills, particularly in social media marketing (A_3) and accountancy (B_3). This shortage is primarily due to a low level of education and lack of exposure among the workforce. Lack of marketing and accounting expertise among employees hinders the expansion of their markets. Furthermore, the industry is also unable to recruit an individual dedicated solely to marketing efforts. As a result, the majority of the handicraft industry sells its products in local markets at a low price. It has been observed that only a limited number of industries have successfully marketed their products outside the state, often relying on third-party agencies such as NGOs for assistance.

In the furniture industry, workers are equipped with essential skills such as measurement (F_1), cutting (F_2), fitting appropriate joints (F_3), polishing (F_4), and interpreting and drawing blueprints (F_5). However, they exhibit a shortage in the skill of computerised design and blueprint creation (F_6). It was mainly due to lack of formal training and unable to afford some specific power machines for designing. This shortcoming sometimes hinders their ability to meet the demands for new and innovative furniture designs from consumers. Nevertheless, customers continue to place orders based on the workers' freehand drawings, blueprints, and sample designs of the furniture. In the category pertaining to ready-made fittings for unfinished wood materials, the designs and styles

are constrained by the limited availability of imported ready-made products, which restricts the potential for modification. Additionally, the industry is also facing a significant shortage of essential skills such as social media marketing (A_3) and accountancy (B_3). This shortfall can be primarily due to the low educational qualifications, as the majority of the workers were matriculated and below. Additionally, a significant proportion of the workforce originate from low socio-economic backgrounds and marginalised communities.

Certain workers were engaged in a specific industry while also possessing additional skills applicable to other sectors. Some workers in the handloom and furniture industries possessed handicraft skills (Hc_1 , Hc_2 , Hc_4 , and Hc_5), with the exception of squeezing and curling skills (Hc_3) related to cane and bamboo. Despite their diverse skill sets, these workers continue to remain in their current industries due to the favourable working conditions, competitive remuneration, and based on their interest in work. For instance, women, who represent the majority of handloom weavers, perceive the working environment in the handloom sector to be more advantageous compared to that of other industries.

Similarly, some workers of the handicraft industry have handloom weaving skills (Hw_1 , Hw_2 , Hw_3 , and Hw_4) and carpentry skills (F_1 , F_2 , F_3 , and F_4). Despite this, they have opted to remain within the handicraft industry due to their extensive knowledge and experience pertinent to their current roles. It is noteworthy that not all workers in the furniture industry possess weaving skills, and conversely, not all handloom weavers are equipped with carpentry skills. Moreover, this is associated with the general perception that weaving is an activity for women and carpentry jobs are an activity for men. Consequently, the gender distribution within these occupations is significantly influenced by gender-related considerations.

The unorganised manufacturing sectors have been predominantly established by private individuals, groups, and societies in Manipur. This sector faces significant challenges, primarily due to a lack of financial capital necessary for the procurement of raw materials, as well as for the acquisition of new tools, equipment, and advanced machinery, which hinders their growth, potential, sustainability, and expansion. Furthermore, a considerable proportion of the workforce in these industries possesses

low educational qualifications and has acquired their skills through informal training, resulting in limited capacity for innovation. With the advancement of technology, manufacturing sectors increasingly demand innovative and marketing skills for selling their products online, graphic design skills to bring out trending fashions, and accountancy skills for financial management. As a result, the skill gap is visible and cannot be neglected in the manufacturing industries in the state. This hamper economic development through improper manpower planning and utilisation of labour.

Conclusion

The study identified the existence of a gap between the employability skills possessed by workers and those required by employers in the unorganised manufacturing sector in the state. This gap has a detrimental impact on the development of existing industries and overall economic growth. While workers possess specific skills relevant to their respective industries, there is a notable shortage in several common skills across these industries. The shortfall of skills includes advertising, digital design, accountancy, and innovative capabilities, which adversely affect the sustainability and expansion of manufacturing.

In the state, it is imperative to minimise and bridge the skills gap. To address this issue, the industries need to implement on-the-job training and apprenticeship programs for workers. This initiative is necessary as many individuals enter the job market without any prior skills training, primarily due to economic constraints. It is also imperative to revitalise existing and establish new institutions for technical and vocational education. It is recommended that the current ITIs be strengthened by leveraging existing facilities and ensuring the availability of qualified instructors for the designated training trades, while also considering the needs of both industries and workers. Furthermore, integrating ITIs with higher secondary schools could significantly improve the technical skills of students, potentially motivating them to pursue advanced degrees in technical fields. Such initiatives may improve entrepreneurial skills, knowledge, and self-employment.

The unorganised manufacturing sector requires enhancements for effective management and initiatives to promote sustainability and growth in the state. Thus, both central and state governments extend financial

assistance through various schemes, grants, and loans from commercial banks. Such support could significantly bolster production capabilities and foster employment generation in the sector. Additionally, it is essential to establish a supportive environment that fosters entrepreneurship, generates employment opportunities, and implements the requisite measures and policies to address the existing skills gap.

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