Article

The Roles of Small and Cottage Industries in Generating Employment: A Study in the Pottery, Handicraft, and Handloom Industries

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Abstract: *This study focuses on the contribution of small and cottage industries to employment generation in Bangladesh. The study comprised 164 participants from small and cottage industries, using a cross-sectional design, who were surveyed in the greater Chattogram region. SmartPLS (Version 4) was used to analyze data. A standardized questionnaire with a 5-point Likert scale was applied to collect primary data for this study. Interceptor activity focused on three cottage industry areas. This study finds that entrepreneurial skill development mediates the connection between government policies, incentives, market demand, and infrastructure development, generating employment in small and cottage industries. The main limitations of this study include its geographic restriction to Greater Chattogram, its limited sectoral focus on only three industries without individual analysis, the use of non-probability sampling, and the exclusion of gender-specific data, particularly concerning female entrepreneurs. The study suggests that small and cottage industries can build an affluent and employment-generating economy in Bangladesh. It will showcase that Bangladesh's small and cottage industries are vital employment-generating and job-opportunity sectors of this economy.*

Keywords: Small and cottage industries, Generate employment, Government police and incentives, Market demand, Infrastructure development

1. Introduction

In Bangladesh's economy, small and cottage industries are regarded as a key sector. These labour-intensive sectors directly contribute to reducing poverty and generating employment in the rural economy. A significant number of jobs can be created by small and cottage industries with limited funding and training. Pottery, handicrafts, and handlooms employ a substantial proportion of the rural and underprivileged population (BBS, 2022). Women are increasingly becoming involved in these occupations, particularly in handicrafts and handlooms. Their economic standing and independence are improving as a result (Rahman & Bhuiyan, 2021). Bangladesh's handicrafts and ceramics are a reflection of the country's tradition and culture. These sectors not only protect cultural identity but also generate income (Chowdhury, 2019).

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BSCIC supports small enterprises in Bangladesh by connecting them with cottage and small industries, enabling them to market merchandise worth approximately TK 50,000 crore. In 1974, BSCIC implemented initiatives in the Chittagong Hill Tracts, training 22,000 young people and providing employment opportunities to 2550 individuals. With BSCIC's support, 62,500 cottage enterprises and 76,000 small industries were founded, generating 3,800,000 employment opportunities (Reza, 2021). The cottage industry in Bangladesh has a long history, with the country's culture evolving alongside it from antiquity. It has played a significant role in the nation's history and is deeply ingrained in its culture and traditions (Joy, 2013). Historically, cottage industries involved small-scale production in homes, requiring minimal financial investment, and often relied on family members as labourers who primarily used physical labour and consumed very little electricity (Tasneem & Biswas, 2014). This industry has revealed Bengal's history, customs, and culture, being considered a classic and ancient art form (Ahmed, 1980). In the past, many village families, including parents and grandparents, engaged in some form of cottage business, such as working with cane and bamboo, for family support or success (Ahmed, 1980). Cotton has been the most essential cottage industry in Bengal for at least two centuries, with Eastern Bengali muslin being highly sought after in Roman fashion during that era. However, the cottage industry became obsolete when machines were introduced during the British period (Rahman & Kumar, n.d.). British rulers also sought recognition for their goods, and the expansion of the cottage industry in Bangladesh was condemned by Pakistanis, adversely affecting the sector (Hayat & Meena, 2023).

The term' cottage industry' relevant here depicts the traditional craftsmanship of rural Bangladesh, where a household undertakes the production of various domestic consumer goods using available raw materials and skills inherited over the years (Vijayalaxmi & Kalluraya, 2023). For their benefit and subsistence, they produce arts and crafts that depict the shapes and forms of the landscape and people of Bangladesh, such as birds, animals, green vegetation, trees, rivers, streams, and the sky (Mitra & Yeasin, 2021). Handicrafts, including metal and wooden art, as well as rural crafts, are all part of the cottage industry. The lowly cottage industry is now beginning to extend into urban centers (Chowdhury, 2000). Poor and low-income individuals, as well as the middle class, in any part of the world, especially in Countries with low income and limited technology, which are still developing, rely on small-scale cottage businesses for employment and income generation. Bangladesh is a small country with a complex economy. Although many external features are encompassed, the kernel revolves around small and cottage industries, which also play a vital role in the employment sector (Arya & Arya, 2021). Rural small businesses account for the majority of employment in the countryside. Their scale and geographic scope can categorize them. The production of various products by these industries creates a demand-supply balance, supports the local economy, and contributes to the overall socio-economic development of the country (Abdin, 2019). Despite its historical significance, the cottage industry in Bangladesh has consistently faced challenges and continues to lag (Hayat & Meena, 2023). These persistent challenges include workers' insufficient skills, the absence of raw materials, financial crises, and marketing management problems. The study suggests that it is necessary to identify these shortcomings and

gaps and conduct more detailed research in this sector to address them (Haider et al, 2015). Furthermore, practical implications revealed significant challenges, including a shortage of capital, outdated technology, substandard products, low marketing efficiency, inadequate market linkage, stiff competition from corporate sectors, inadequate infrastructure facilities, and the role of intermediary enterprises (Chowdhury, 2000). The pressure from large companies, government indifference, and the malfunctioning of lending programs also hinders the dynamic development of small and cottage businesses (Arya & Arya, 2021). However, sector-specific empirical studies on handicraft, handloom, and pottery industries in Bangladesh are still limited, leaving important aspects such as employment generation, income security, and gender participation insufficiently understood. This study seeks to address the research gaps in several ways. First, the current investigation examines the factors that influence employment and entrepreneurial skill development, providing insights into employment opportunities. Second, it further examines how entrepreneurial skill development mediates the generation of employment in the context of Bangladesh's small and cottage industries sector. This study investigates the following questions;

RQ1: What are the primary concerns facing Bangladesh's Small and Cottage industries, which generate employment?

RQ2: What are the primary indicators that Bangladesh's Small and Cottage industries generate employment?

RQ3: How do Bangladesh's Small and Cottage industries generate employment?

RO1: To determine the current state of Bangladesh's Small and Cottage industries that generate employment.

RO2: To promote self-employment and entrepreneurs of small and cottage industries to generate employment in Bangladesh.

RO3: To enhance employee opportunities in small and cottage industries to generate employment in Bangladesh.

1.1 Theoretical Framework

1.1.1 Handicraft Industries

Estimates that during fiscal 2022–2023, Bangladesh's handicraft exports brought in around USD 54.98 million. Jute crafts, bamboo and cane goods, terracotta artefacts, jamdani, and nakshi kantha were among the primary commodities (EPB, 2023). Moreover, 60% of the approximately 300,000 artisans directly engaged in the handicraft industry are women (BSCIC, 2022). Along with initiatives to revive jamdani weaving, which UNESCO recently acknowledged as an Intangible Cultural Heritage, the sector includes traditional crafts of the Chittagong Hill Tracts (UNESCO, 2013). Women entrepreneurs play a prominent role, owning 51.2% of handicraft establishments (Arafat, 2024). The global handicraft market is substantial, reaching $752.2 billion in 2022 and projected to hit $1,296.6 billion by 2028 (ECRL, 2024).

1.1.2 Pottery Industries

Despite being smaller than its neighbour, Bangladesh's pottery harvest business has its cultural distinction. The production facilities are mostly located in Rajshahi, Bogura, Narsingdi, Jessore, and certain areas of Dhaka. BSCIC, thousands of households depend on pottery and terracotta crafts as a full-time or part-time source of income, while there is no nationwide figure for this year. According to archaeology, pottery-making in eastern Bengal dates back to the fifth century AD. Pottery centres currently produce items like Shokher Hari, terracott tiles, earth baking pots, and religious figures that have done well in urban artisan fairs in the villages or towns where they were made. Pottery manufacture is still a significant component of popular culture and a source of employment in rural areas, even if many of these goods face competition from low-cost alternatives in plastics and other forms (BSCIC, 2022). The ceramic sector caters to roughly 80% of the domestic demand (Islam, 2024). Bangladeshi ceramics are exported to over 50 countries, including the UK, USA, Italy, and Spain. The industry has seen average annual growth of 20% in domestic sales and 26% in exports in recent years. Moreover, Production capacity has increased by around 200% in the last five years (Zaman, 2024). Direct employment is estimated at 48,000, with indirect employment exceeding 500,000 (Hossan, 2024).

1.1.3 Handloom Industries

The largest traditional textile subsector in Bangladesh is still the handloom sector. The most recent estimates are that there will be over 505,000 registered handlooms, of which roughly 59% are operational, and that they produce close to 620 million meters of fabric a year (Islam & Hossain, 2012). Between 35 and 40 percent of the domestic fabric demand in the country is satisfied by this manufacturer. The sector directly employs more than 1.1 million weavers; most of them work in family-run businesses where skills are customarily passed down through the generations (BHB, 2022). Pabna, Narayanganj, Sirajganj, and Tangail are meaningful handloom clusters. To further conserve and promote this ancient skill, the BHB and other cultural heritage programs are funding Dhaka muslin revival initiatives (UNESCO, 2021). The industry produces a significant amount of fabric, with 687 million meters annually from around 300,000 active looms (Liton, 2016).

2. Literature Review

The combined effect of the competitive forces was moderate to weak; as a result, the Bangladeshi ceramics industry was seen as competitively attractive in that its participants can fairly anticipate making respectable profits and a good return on investment (Jahan, 2010). The effect of BHB in creating jobs in the rural areas of Enaitpur Thana in the Sirajgonj District was evaluated. Of the 50 responders, 28 do not have credit facilities, and 22 just have them. Researchers looked into the best ways for handloom boards to carry out their roles and regulations (Khan, 2013). Small and cottage industries, such as those producing agar-based products in Maulvibazar, employ a significant number of full and part-time workers, contributing to rural development (Uddin et al., 2008). There was a clear connection between these industries and the creation of jobs, as seen by the BSCIC's activities, which have significantly raised household income. This, in turn, had increased consumption and decreased poverty (Haider et al., 2015). By raising rural household incomes and facilitating more engagement in economic and educational activities, especially for

women, these industries support the larger economic framework (Rahman, 2015). According to Siwar et al., (1994), the existence of small-scale companies in rural regions contributed to economic diversification beyond agriculture by offering a reliable source of employment and income. Nevertheless, their promise, small and cottage companies had obstacles such as restricted financial availability, antiquated technology, and inadequate infrastructure (Saha, 2024). According to Ayyagari et al. (2014), small and medium-sized businesses (SMEs) frequently outperform major corporations in terms of employment growth rates, making them important contributors to job creation. Since women frequently spend their earnings back into their communities, empowering them in CMSMEs can result in more jobs being created. These industries cover a wide range of sectors that serve both domestic and foreign markets, such as textiles, food processing, and handicrafts, which increases job prospects (Huq & Ichihashi, 2023). Therefore, the suggested hypotheses are as follows:

H1a. *Government policies and incentives positively impact entrepreneurial skill development.*

H1a. *Market demand positively impacts entrepreneurial skill development.*

H1c. *Infrastructure development positively impacts entrepreneurial skill development.*

The market for handcrafted goods is primarily regional, with some urban expansion. In addition, intermediaries are crucial to the selling of these homegrown goods. Typically, they place an order with the craftsman and pay less than market value for the items they gather. One of the main obstacles to its development was the competition from alternatives like plastic products (Kasemi, 2014). Concentrating on how each handicraft industry contributed to Bangladesh's economic growth. The study suggested that the cottage industry be developed for it to prosper and contribute more to Bangladesh's economic growth (Tasneem & Biswas, 2014). The number of micro, small, and medium-sized firms (MSMEs) and their combined contribution to the national or state GDP are increasing, and the data showed a rising trend with sporadic volatility. These industries may be further empowered to create sustainable development by addressing these issues via strategic interventions, such as strengthening market connections and encouraging innovation (Saha, 2024). Given that many households were moving away from agriculture and towards non-farm pursuits, which reflects a structural shift in the economy, the cottage and microenterprise sectors were essential for rural employment (Iqbal et al., 2023). Female entrepreneurs face unique challenges in accessing finance, which limits their participation in the cottage industry. Addressing these barriers can enhance women's contributions to employment generation. Improved socioeconomic circumstances, including better child education and higher household income, especially for women, have been associated with employment in these industries (Mondal, 2017). A sizable percentage of small businesses run unofficially, which restricts access to official financial assistance and regulatory benefits, even while it creates jobs. Although this industry is essential for creating jobs, formalisation requires supporting legislation (De Giorgi et al., 2018; Mondal, 2017). Accordingly, we propose the following:

H2. *Entrepreneurial skill development has a positive impact, generating employment.*

The conducted research in the state of Uttar Pradesh discovered that the MSME sector, of which handicrafts were a part, saw an astounding loss of more than 70% in revenue. The Union Government's 2016 declaration of demonetization resulted in a complete collapse of working capital and cash flow in the micro, small, and medium-sized business sectors in recent years; COVID-19 made matters worse just as recovery was starting to take hold (Kumar, et.al, 2022). The research pointed out that in terms of finance, education, and technology cases, the growth of the industry can go two ways, that is, either rise or fall. The report recommended that, besides the school development of the government, more skill set programs should be run while giving small cottage-based entrepreneurs a pathway to penetrate global markets. This was achieved by creating a conducive environment through capital inflows (Hayat & Meena, 2023). This ends up reducing the overall poverty and also helps touch upon inclusive growth or sectors allied in employment & money generation, coupled with skill acquisition from here on: (agro-processing, handloom weavers & ceramics, small-scale manufacturing, internet companies, to traditional handicrafts, etc.) It also empowers rural women to be employed in rural areas. To fully realize the potential of rural economies and promote a more resilient and empowered rural India, it is imperative to comprehend and support these sectors (Gogoi, 2024). By diversifying revenue streams, small business expansion promotes economic resilience, especially in rural regions where reliance on agriculture is waning (Iqbal et al., 2023). SMEs can respond to market shifts faster, which protects them from financial shocks and encourages innovation (Havenga, 1988). Thus, we propose the following;

H3a. *Entrepreneurial skill development mediated by government policies and incentives has a positive impact, generating employment.*

H3b. *Entrepreneurial skill development mediates market demand and has a positive impact on generating employment.*

H3c. *Entrepreneurial skill development mediates infrastructure development and positively impacts the generation of employment.*

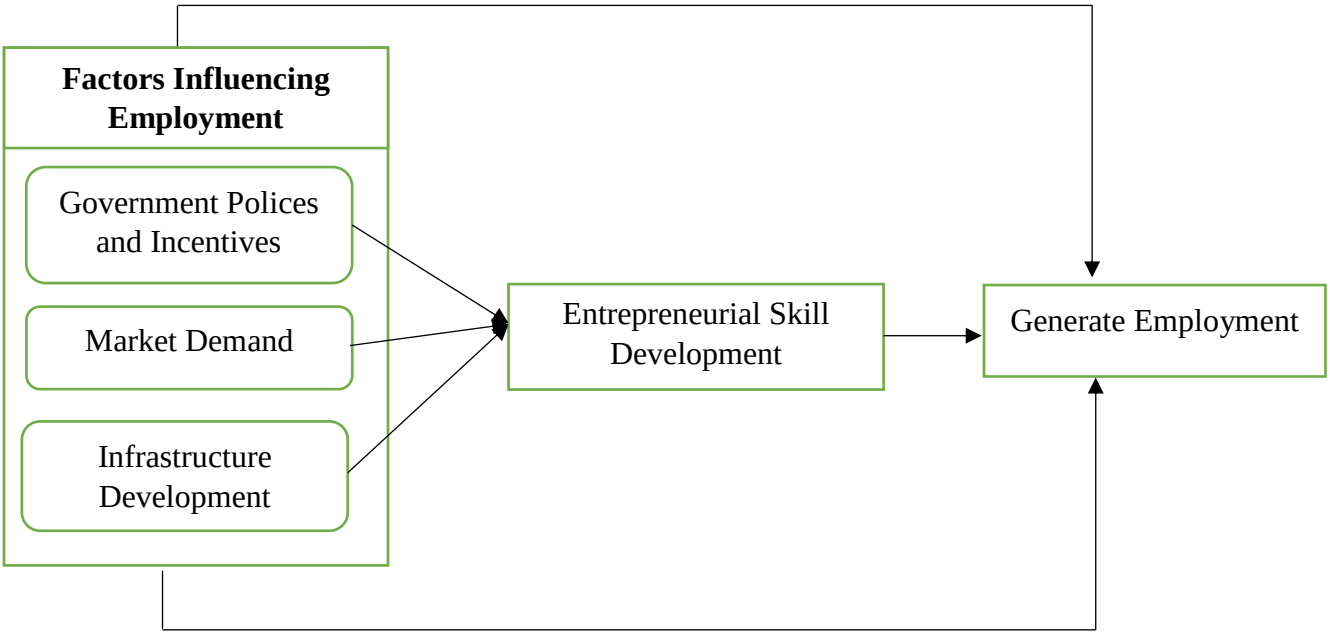
Therefore, this study has gaps; few deep investigations thoroughly examine the handicraft, handloom, and pottery industries, even though these sectors have long been employed in Bangladesh's rural areas. Particular questions include the number of employment produced, whether earnings support livelihoods, and the involvement of women, particularly in pottery. More investigation is needed on the effects of intermediaries as well as the use of contemporary methods. Environmental impacts, sectoral disparities between places, different post-crisis recovery directions, and formalisation obstacles are all unknown, which adds to the need for more thorough research. The number of jobs created may be increased, and these significant industries could be more closely integrated into national development plans with a comprehensive, holistic examination of these little-studied areas.

3. Research Methods

3.1 Sample and Data Collection

To assess the suggested hypotheses, a systematic survey questionnaire was prepared (Figure 1). The survey questionnaire consisted of two sections, each containing 23 questions. While the second segment contained numerous essential components of various study variables, the first section focused on the demographic portfolio. The demographic portion included five questions about the participant's age, gender, educational background, occupation, and location. FIE1 to FIE3 factors influencing employment, GP&I1 to GP&I3 government policies and incentives, MD1 to MD3 market demand, ID1 to ID3 infrastructure development, ESD1 to ESD5 entrepreneurial skill development, and EG1 to EG3 employment generation were all covered in the second section of the survey, which had 17 items.

Figure 1: Conceptual Framework



Source: Authors' Compilation.

This study was to examine how small and cottage industries contribute to the creation of employment opportunities in the greater Chittagong area. The study employed a descriptive research approach, which is classified as time- and cost-efficient. Predictions for a bigger population were produced using a limited sample size. A combination of quantitative and qualitative methods was used in the investigation. This study's sample collection procedure was rigorous. Initially, emails requesting permission were sent to two BSCIC branch administrators in Chittagong. Second, twenty cottages and small businesses in the Chittagong area received emails requesting their permission. Non-probability sampling methods included the types of sampling known as judgment and intentional sampling in sample designs. Especially, professional employees and entrepreneurs in the Chattogram region's handicraft, handloom, and pottery

industries represented this study's sample. Primary data was collected by surveys and observation. This data was gathered with the help of five research assistants, and 300 standardised questionnaires were easily sent out to the target people. For secondary data collection, data were collected from Greater Chattogram, BSCIC, and other relevant published and unpublished sources. Instead of approaching strangers, it is simpler to establish connections in Bangladesh through friends, acquaintances, and relatives. It's almost tough to get answers from strangers. The study employs PLS-SEM for data analysis due to the minimal sample size. Generally, PLS-SEM data analysis performs best with sample sizes ranging from 100 to 200 (Strzelecki, 2024). PLS-SEM is capable of producing reliable and consistent results even with sample sizes ranging from 69 to 100 (Hair & Alamer, 2022).

Table 1a: Overview of Sample

Data Gathering Time	**Gathered By**	**Types Industries**	**Sample**
02 Feb 2024 – 04 March 2024.	Researcher	Pottery	32
		Handloom	40
		Handicraft	92
		Total	164

Source: Primary Data.

Therefore, the current study's sample size of 164 is adequate to extrapolate the results to the intended audience. Out of the 170 surveys collected between February and March 2024, 164 (96%) were valid and completed; those with missing or partial data were excluded from the analysis. The respondents' demographic data are shown in Table 1a.

3.2 Measurement of Variables

The scales used in this investigation are mature, trustworthy, and were created outside. To guarantee their scientific character, the selected measurements were initially written in English. However, to prevent misunderstandings and translation errors brought on by linguistic and cultural disparities, the research team translated the pertinent scales into Bangla using the translation-back-translation process. This study identifies three essential elements that influence employment: government policies and incentives, market demand, and infrastructure development (Appendix: Table 7). Additionally, we selected three measures to assess participants' development of entrepreneurial skills. The employment generation was assessed using three items. A five-point Likert scale, with one denoting "strongly agree", 2 "agree", 3 "neutral", 4 "disagree", and 5 "strongly disagree", was employed to collect participant opinions about the research variables

3.3 Data Analysis Strategy and Ethical Considerations

The suggested structural model was validated through data analysis, PLS-SEM, and bootstrapping using SmartPLS. In the preceding data, statistical techniques, including path and mediation analysis, were employed as the analytical approach. The study established key ideas, tested the

research objectives, and examined the hypothesized links. The study used average variance extracted (AVE) for the convergent validity test, Cronbach's alpha, R-squared corrected, and Composite reliability (CR) for consistency and outer loading. Before proceeding with this study, all participants were briefed on the study's aims and asked to provide their consent. Confidentiality and privacy of data shall be maintained throughout the study. The systematic data collection and analysis made possible through this standard technique yielded substantial conclusions on the contribution of small and cottage industries, as well as their part in generating employment in greater Chattogram.

3.4 Demographic Information

Table 1b shows that males accounted for 73.18%, while females comprised 26.82%. Regarding participant age, 9.15% of respondents were under 25 years old, 67.07% were between 26 and 35 years old, 18.60% were between 36 and 45 years old, and 5.5% were over 46 years old. At educational levels, 4.87% possess a SSC, 43.90% hold HSC, 48.17% hold a bachelor's degree, and 3.06% hold a master's degree. In the occupation, 49.39% hold a handicraft industry, 24.39% hold a handloom industry, and 26.22% pottery industry. At the location, 39.02% hold Cumilla, 25.61% hold Chattogram, 6.09% hold Cox's Bazar, 7.93% hold Feni, 7.31% hold Noakhali, and 14.04% hold Brahman-Baria. Of the several employees, 22% were employees 2-5, 29.3% were employees 5-10, 7.3% were employees 10-15, 21.4% were employees 15-20, and 20% were employees with more than 20 years of experience.

Table 1b: Demographic Information (N=164)

Demographic	Category	Frequency	Percentage
Gender	Male	120	73.18
	Female	44	26.82
Ages	Below 25 years	15	9.15
	26 – 35 years	110	67.07
	36 – 45 years	30	18.60
	Above 46 years	9	5.18
Education	SSC	8	4.87
	HSC	72	43.90
	Bachelor's Degree	79	48.17
	Master's Degree	5	3.06
Occupation	Handicraft Industry	81	49.39
	Handloom Industry	40	24.39
	Pottery Industry	43	26.22

Location	Cumilla	64	39.02
	Chattogram	42	25.61
	Cox's Bazar	10	6.09
	Feni	13	7.93
	Noakhali	12	7.31
	Brahman-Baria	23	14.04
Number of Employees	Employees 2-5	36	22
	Employees 5-10	48	29.3
	Employees 10-15	12	7.3
	Employees 15-20	35	21.4
	Employees Above 20	33	20

Source: Authors' Computation.

4. Results

4.1 Measurement Model

The measurement model's reliability, convergent validity, and discriminant validity were assessed using composite reliability (CR), average variance extracted (AVE), and factor loading values, as per the criteria established by Henseler et al., (2016). According to Hair and Alamer (2022), the cutoff values of 0.7, 0.7, and 0.5 should be exceeded by the factor loading, Cronbach's alpha (CR), and average variance extracted (AVE) values, respectively. As shown in Table 2, factor loadings exceeding 0.70, CR values above 0.70, and AVE values above 0.50 indicate strong internal consistency. Furthermore, to verify discriminant validity, the HTMT ratio must be smaller than 0.85 (Henseler et al., 2016). As seen in Table 3, the discriminant validity of the model is described by HTMT ratios < 0.85.

Table 2: Construct Reliability and Validity

Construct	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	AVE
Government Policies and Incentives	0.81	0.81	0.87	0.73
Market Demand	0.82	0.83	0.88	0.70
Infrastructure Development	0.80	0.81	0.87	0.71
Entrepreneurial Skill Development	0.88	0.88	0.91	0.69

Generate Employment	0.84	0.84	0.88	0.68

Source: Authors' Computation.

Table 3: Discriminant Validity (HTMT Ratio)

Constructs	GP&I	MD	ID	ESD	VIF (<3.3)
Generate Employment					
Government Policies and Incentives	0.58				2.6
Market Demand	0.61	0.59			2.4
Infrastructure Development	0.60	0.57	0.62		2.9
Entrepreneurial Skill Development	0.63	0.60	0.65	0.63	2.5

Source: Authors' Computation.

4.2 Structural Model

This study employed Smart PLS bootstrapping on 500 samples and 164 cases to investigate the hypothesised correlations between variables using path coefficients (Karim et al., 2024). Following the recommendation by Kock and Lynn (2012), since the data came from a single source, it was subjected to extensive collinearity testing to evaluate common method bias. The VIF values were less than 3.3, indicating that single-source bias was not a significant issue with this dataset. Additionally, exploratory factor analysis revealed that common method bias was not a concern, as no factor accounted for more than 46.77% of the total variance, which is below the 50% threshold suggested by Podsakoff and Organ (1986).

Table 4: Short List of Hypothesis Outcomes

Hypothesis Path	Sample Mean (M)	STEDV	T Values	P Values	CI (BC)		Decision
					5%	95%	
H1a: GP&I -> ESD	0.27	0.07	4.11	0.00	0.15	0.37	Accepted
H1b: MD->ESD	0.30	0.06	4.73	0.00	0.19	0.41	Accepted
H1c: ID-> ESD	0.25	0.07	3.79	0.00	0.14	0.37	Accepted
H2: ESD -> EG	0.28	0.07	4.07	0.00	0.16	0.40	Accepted
H3a: GP&I-> ESD->GE	0.07	0.02	2.88	0.00	0.02	0.12	Accepted

H3b: MD->ESD->GE	0.08	0.03	3.11	0.00	0.04	0.14	Accepted
H3c: ID->ESD->GE	0.07	0.02	2.84	0.00	0.03	0.11	Accepted

Source: Authors' Computation.

Table 4 revels that government policies and incentives (M = 0.27; STEDV = 0.07; t = 4.11; p> 0.05), market demand (M = 0.30; STEDV = 0.06; t = 4.73; p> 0.05), Infrastructure development (M = 0.25; STEDV = 0.07; t = 3.79; p> 0.05), had a significant with small and cottage industries with generate employment. Furthermore, entrepreneurial skill development (M = 0.28; STEDV = 0.07; t = 4.07; p> 0.05) was significant in small and cottage industries that generate employment. Additionally, Entrepreneurial skill development acts as a mediator in the connection between government police and incentives (M = 0.07; STEDV = 0.02; t = 2.88; p> 0.05), market demand (M = 0.08; STEDV = 0.03; t = 3.11; p> 0.05), and infrastructure development (M = 0.07; STEDV = 0.02; t = 2.84; p> 0.05) and the generate employment of small and cottage industries in Bangladesh.

4.3 Model Quality

R Square indicates a moderate level of accuracy for the model (endogenous variable value > 0.13). Table 5 displays the R-squared values for entrepreneurial skill development and generating employment, denoted as 0.51 and 0.62, respectively, indicating the moderate quality of the structural model (Henseler et al., 2016).

Table 5: Model Quality

Construct	R Square	R-squared Adjusted
Generate Employment	0.62	0.61
Entrepreneurial Skill Development	0.51	0.50

Source: Authors' Computation.

Table 6: Distribution of the Participants by all the Districts

Cumilla			
Occupation	Frequency	Percentage	Cumulative percent
Handloom	15	23%	23%
Handicraft	41	64%	87%
Pottery	8	13%	100%
Total	64	100%	
Chattogram			
Occupation	Frequency	Percentage	Cumulative percent
Handloom	9	28%	28%
Handicraft	17	53%	81%

Pottery	6	19%	100%
Total	32	100%	
Cox's Bazar			
Occupation	Frequency	Percentage	Cumulative percent
Handloom	2	20%	20%
Handicraft	4	40%	60%
Pottery	4	40%	100%
Total	10	100%	
Feni			
Occupation	Frequency	Percentage	Cumulative percent
Handloom	6	46%	46%
Handicraft	2	23%	69%
Pottery	4	31%	100%
Total	13	100%	
Noakhali			
Occupation	Frequency	Percentage	Cumulative percent
Handloom	3	25%	25%
Handicraft	7	58%	83%
Pottery	2	17%	100%
Total	12	100%	
Brahman-Baria			
Occupation	Frequency	Percentage	Cumulative percent
Handloom	5	22%	22%
Handicraft	20	43%	65%
Pottery	8	35%	100%
Total	33	100%	

Source: Authors' Computation.

Table 6**.** As seen in Cumilla, an enormous number of participants, 41 or 64%, were associated with the Handicraft industry, 15 or 23% with the Handloom industry, and 8 or 13% with the Pottery industry. The Comilla District has an enormous number of participants in the handicraft industry. As seen in Chattogram, an enormous number of participants, 17 (53%), were associated with the Handicraft industry, 9 (28%) with the Handloom industry, and 6 (19%) with the Pottery industry. The Chattogram District has an overwhelming number of participants in the handicraft industry. As seen in Cox's Bazar, an enormous number of participants, 4 or 40%, were associated with the Handicraft industry, 2, or 20%, with the Handloom industry, and 4, or 40%, with the Pottery industry. The Cox's Bazar District has a large proportion of participants in the handicraft and pottery industry. As seen in Feni, an enormous number of participants, 6 or 46%, were associated with the Handloom industry, 3, or 31%, with the Handicraft industry, and 4, or 23%, with the Pottery industry. The Feni District has a large proportion of participants in the handloom industry. As seen in Noakhali, an overwhelming number of participants, 7 or 58%, were associated with the Handicraft industry, 3, or 25%, with the Handloom industry, and 2, or 17%, with the Pottery industry. The Noakhali District has the most significant number of participants in the handicraft industry. As seen in Brahman-Baria, an overwhelming number of participants, 10 (43%), were

associated with the Handicraft industry, 5 (22%) with the Handloom industry, and 8 (35%) with the Pottery industry. The Brahman-Baria District has an overwhelming number of participants in the handicraft industry.

5. Discussion and Conclusion

This study examines how entrepreneurial skill development mediates the factors influencing employment and the roles of small and cottage industries in generating employment in Bangladesh. The findings confirm that government policies, incentives, and market demand were significantly associated with entrepreneurial skill development. Thus, hypotheses H1a-H1c were confirmed. H1a indicates that Policy support, training facilities, tax breaks, and financial assistance encourage entrepreneurs to acquire skills. This finding is consistent, suggesting that good governance and policy stability foster entrepreneurship. Hb indicates that market demand plays the most significant role in achieving the goals of entrepreneurs. An encouraging and innovative market system motivates entrepreneurs to learn about market demand. Accordingly, H1c indicates that infrastructure development, such as digital services, communication systems, and training centers, helps individuals acquire entrepreneurial skills. Moreover, the study results further illustrated a positive and significant association between entrepreneurial skill development and employment generation. Based on the hypotheses, H2 was confirmed. This study finds that developing entrepreneurial skills directly leads to increased employment opportunities. Skilled entrepreneurs create new businesses, where others get jobs. Skills and innovation are the main drivers of growth. Additionally, entrepreneurial skill development mediated the connection between factors influencing employment and employment generation. Consequently, hypotheses H3a-H3c were confirmed. Government policies, market demand, and infrastructure development are factors that impact not only job opportunities but also the skills of entrepreneurs.

Therefore, this study suggests several key measures to support the growth of cottage industries. Increasing capital investment and enhancing employees' knowledge of modern technology are essential. Developing better connectivity, communication, and infrastructure will further promote effective growth and funding. Proper use of raw materials and ensuring correct pricing of products are significant to maintain quality and competitiveness. In addition to fostering export capabilities and increasing the number of educated entrepreneurs will help expand the sector. The government should provide incentives and encourage public-private partnerships. To support entrepreneurs financially, easy-to-repay loans in local and international currencies, as well as low-interest loans or microfinance options, should be made available. Consequently, the cottage industries will grow, and ultimately, more employment opportunities will be created in Bangladesh. Thus, Bangladesh can build an affluent and employment-generating economy.

5.1 Theoretical Implications

This study first identifies the factors influencing employment, including government policies, market demand, and infrastructure development. This reinforces the entrepreneurial development theory, which states that employment and economic growth in society are possible through

increased personal entrepreneurship. Moreover, the study results emphasise how effectively these government policies, market demand, and infrastructure development foster a sense of responsibility among respondents, ultimately enhancing employment generation. Secondly, this study found a practical application of its mediation theory. Entrepreneurial skill development serves as a mediating variable, transforming the effects of government policies, market demand, and infrastructure development into employment generation. As a result, a structural link has been created between primary causes and consequences. Furthermore, this study also supports the concept of social capital theory, which posits that strong institutions, government support, and market access are essential for social and economic development. Especially in developing countries like Bangladesh, this study examines how institutional structures and environments can foster entrepreneurial development.

5.2 Limitations and Future Research Directions

When reviewing the findings, it is essential to consider the numerous limitations of this inquiry. Initially, information was gathered solely from Bangladesh's Greater Chattogram division. The findings about small and cottage industries in Bangladesh may not be as broadly applicable as they seem due to the difficulty of including a variety of small cottage industries (such as pottery, handloom, and handicraft) across many divisions. Future studies could encompass all regions of Bangladesh. Furthermore, other probability sampling methods, such as systematic or simple random sampling, may be used in subsequent research. Additionally, the three sectors of pottery, handicrafts, and handlooms were the only focus of this study; they were not examined individually. Separate studies of every area are crucial for the future. As a result, separate data about the employment roles and abilities of female entrepreneurs had not been examined.

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Appendix

Table 7: Measurement Ingredients

Measurement Ingredients
Government policies and incentives:
GP&I1: Provide sufficient tax or subsidies to support SCI.
GP&I2: Government training programs effectively enhance SCI productivity.
GP&I3: Export promotion policies help SCIs expand and create productivity.
Market Demand:
MD1: Local demand for SCI products is consistently high (handicrafts, textiles, etc.).
MD2: International demand positively impacts SCI employment (jute, leather goods, etc.)
MD3: E-commerce has expanded market access for SCIs (e.g., Daraz, Facebook).
Infrastructure Development:
ID1: A Reliable electricity supply is available for SCI operations.
ID2: Transportation networks efficiently support raw materials supply or product distribution (roads, ports, etc.).
ID3: Digital infrastructure aids SCI business operation (internet, mobile banking, etc.).
Entrepreneurial Skill Development:
ESD1: Vocational training programs improve entrepreneurial skills (BRAC, BSCIC, etc.)
ESD2: Most SCI owners have adequate financial literacy to manage businesses.
ESD3: Lack of innovation skills limits product diversification in SCIs.
ESD4: Women entrepreneurs receive sufficient training to lead SCIs.
ESD5: Mentorship programs are available for new SCI entrepreneurs.
Employment Generation:
EG1: SCI's area has created significant job opportunities in the past 5 years.

EG2: Women's employment in SCIs has increased notably.
EG3: Income from SCI jobs is sufficient to lift workers out of poverty.

Source: Authors' Compilation.