

Role of the Handloom Industry in the Socio-Economic Development of Women Weavers in Baksa District, Assam

¹Ruma Kundu, ²Mandeep Dhamala, ³Millenium Basumatary³

¹Assistant Professor, ²P.hD Scholar, ³M.A Student,

¹Department of Economics,

¹Sikkim University, Gangtok, Sikkim

¹rumakundu76@gmail.com, ²mandeepdhamala1@gmail.com, ³milleniumbasumatary@gmail.com

Abstract—This study explores the socio-economic impact of the handloom industry on women weavers of Baksa district, Assam. Using a structured questionnaire, primary data were collected from 150 women engaged in weaving activities. The study investigates their demographic profile, income levels, and challenges faced in the handloom sector. Findings show that weaving activity serves as the primary occupation for all respondents, most of whom belong to Schedule Tribe. The handloom sector significantly contributes to women's economic, and social empowerment by increasing income, improving decision-making ability, and raising self-confidence. The findings underscore the need for targeted interventions in raw material support, training, health outreach, and marketing linkages. The study concludes that with proper institutional support, the handloom industry holds strong potential to serve as a sustainable livelihood strategy and a powerful vehicle for women's empowerment in rural Assam.

Index Terms—Socio-Economic Impact, Handloom Sector, Institutional Support, Sustainable Livelihood, Women Empowerment.

I. INTRODUCTION

The term handloom is defined as any loom which is worked by hands. The handloom production involves the process of operation using a wooden structure which is called the loom. An unorganised sector, this is predominantly a family-based industry and provides a basis for livelihood after agriculture. The Indian handloom sector has the significant potential for generating self-employment opportunities and offering a good standard of living. However, this sector is facing strong competition from the power loom and mill industry. In spite of this, the handloom industry has the ability to produce products that are saleable in small volumes, have scope for innovation, shift over to latest designs per market trends.

Hand-woven textiles are symbolic of Indian culture. The Indian cotton fabrics enjoy worldwide popularity, especially in Eastern and European markets. India's textile sector shows up as a rich source of textile designs globally, increasingly used by designer across various nations. The textile industry holds a noteworthy position in India's economy, contributing to industrial output, employment opportunities, and foreign exchange earnings. It provides about one-fifth of the total industrial production, close to one-third of the total exports and gives plenty of employment to millions of people. History shows that Indians have known weaving culture for more than five thousand years. This is because five thousand years old Egyptian mummies were found wrapped in Indian silks and muslins. This proves the artistic skills of Indian weavers in the past. Despite facing strong competition from machine made products, this industry has remained untouched by challenges like rising mobility, urbanisation, scientific and technological revolution. People engaging in this sector are from different religious backgrounds, besides tribals and hill people. Mahatma Gandhi recognised the significance of textile handicrafts during the struggle for independence. A notable aspect of Gandhi's views on this issue is that he emphasised not only handloom weaving but also spinning by hand. Handloom has been given different names based on its mode of operation. It is known as throw-shuttle pit loom when the worker operates it by throwing the shuttle from one side to the another with either of his hands, sitting on the edge of a small pit in which the heads could be suitably operated with his legs. There are improved fly-shuttles which swing the shuttle from one side to the other side by pulling the strings tied to the shuttle-driving cocks on either side. The loom was taken out of the pit and fitted on the frame and hence called frame loom (Naidu & Prathap, 2015).

Rural handloom provides scope for economic inclusion and source of livelihood different tribal communities in Assam like Bodo, Khasi, Adi, Rava, Kuki, Garo, Lalung, Sonowal Kachari, Mising, Chutia, Hajangs etc. of the north-eastern part of India. According to the Handloom census 2019-20 this sector employs about 35,22,512 handloom workers across the country. Handloom primarily employs women, who make up about 70 per cent of the total workers. In the Fourth All-India Handloom Census, it was recorded that there were 28.2 lakhs handlooms across India. Among these, 25.2 lakhs were situated in rural areas, while 2.9 lakhs were found in urban areas. The majority of handlooms, accounting for 95.6%, were observed in households engaged in handloom weaving. This indicates that the practice of weaving on handlooms is predominantly a household-based activity. According to the Handloom census of 2019-20, in Assam the total number of households that practice handloom is 12, 52,188 in rural areas and 17,318 in urban areas. The total number of female weavers in rural areas is 10, 21,349. The number of households who have their own dwelling unit are 12, 34,474. Assam and West Bengal alone contribute nearly 46.8 per cent of the country's production.

II. LITERATURE REVIEW

Kalita (2019) while doing a case study on the involvement of women of Assam in the handloom weaving industry in the Barpeta district of Assam, found that the income derived from the weaving industry plays an important role in encouraging women to engage in this field. Narzary (2013), highlighted the challenges faced by the handloom industry in BTAD (Bodoland territorial area district)

Assam, that is, the issue of getting raw materials at reasonable prices has been the crucial part for the individual weavers along with financial credit-related problems. There has been an information gap between the buyers and sellers, where the weavers are often not familiar with the varieties of fabrics, designs and thus they find themselves unable to respond to dynamic trends of the market.

Hazarika (2020) while working on production technology and problems of the handloom textile units of the Singphos tribe of Assam, found that the handloom units of this region or the particular community reveal a constant return to scale. Unfortunately, handloom units face many problems such as lack of technological improvement, problems related to marketing, high price of raw materials, lack of financial assistance, training, and no awareness about government schemes. Similarly, Dutta (2020) highlighted motivating factors and problems of the handloom industry in Dhemaji district of Assam, identified some motivating factors and problems of the handloom industry in the region. Raw material problems of the handloom industry are a very significant issue in this district. Other problems are lack of credit facilities, marketing, infrastructure gap, education and training, and competition from power looms. Choudhury (2022), also found that the handloom sector has a significant role in the socio-economic improvement. It continues to be an important source of livelihood especially for women.

Hujuri (2023) analysed the economic profile and the challenges and problems encountered by the handloom weavers in Kamrup district of Assam. The study found that 76% of weaver households live in kuccha homes and only 24% live in pucca structures, reflecting rural India's general housing pattern. Most weavers (94%) own their homes, whereas very few of them (6%) live in either rented or other dwelling units. Majority of weavers possess their own loom. Income levels are low, with 70% of the households earning less than Rs. 5,000 per month, 21.5% earning Rs. 5,000-10,000, and only 8.5% earning over Rs. 10,000. Gohain (2020), highlights that handloom production in Lakhimpur region faces challenges such as low household income contribution, idle looms, and low productivity compared to other states. Traditional weavers, primarily supported by family use, see limited commercial production. Self-employed weavers earn higher wages than those working under merchants or cooperative societies.

The existing body of research explores various facts of the handloom industry across Assam with a predominant focus on the socio-economic conditions of weaver's health concerns, financial assistance, marketing, raw materials, etc. However, a noticeable gap has been found in the literature, particularly regarding women weavers of the Baksa district. Limited attention has been given to exploring the socio-economic conditions and challenges faced by the weavers specifically in Baksa district. This research aims to generate a significant contribution by explaining the experiences of women weavers in the district of Baksa thus adding to the existing literature with regard to the handloom industry.

III. DATABASE AND METHODOLOGY

This study is based on both primary and secondary data sources. Secondary data was collected from the relevant literature, government reports, journal publications and the handloom census to understand the handloom sector in Assam.

Primary data was collected through structured questionnaire from 150 women weavers, from purposively selected villages in the Baksa district of Assam. These villages were chosen based on their weaving activity and high concentration of handloom activity. The respondents were selected using purposive sampling technique to ensure representation from all categories such as age, social groups and weaving experience. In order to analyse the gathered data descriptive statistics and cross tabulation were used to identify key challenges and trends. Furthermore in to understand the factors influencing monthly income of women weavers multiple linear regression model has been implied.

IV. RESULTS AND DISCUSSION

Demographic Profile of Respondents

The study found that out of the majority of weavers, 36% fall within the 31-40 age group, suggesting that this is a significant demographic for the weaving industry. The next largest group is those aged 41-50, with 32.67% of respondents. In this study area this industry is primarily made up of women with 31-50 age group represents an experienced and skilled weaver. Only 2% of the respondents were under the age 20, this smaller group of weavers suggests that there may be a need for programmes and training for encouraging younger people to enter the weaving industry. While only 7.33% of the respondents were over 50, there is a possibility that a significant portion of those within this age group may have left the weaving community due to lack of time and health-related problems.

Table1: Demographic Profile of the Respondents

Variables	Number of respondents	Percentage
Age		
Below 20	3	2
21-30	33	22
31-40	54	36
41-50	49	32.67
Above 50	11	7.33
Community		
ST	118	78.67
SC	5	3.33
OBC	24	16
GEN	3	2
Educational Qualification		
Illiterate	3	2
Primary	29	19.33
Upper Primary	23	15.33
High School	64	42.67
Higher Secondary	31	20.67
Family Type		
Nuclear	141	94
Joint	9	6

Source: Primary Data

Table 1 further suggests that the weaving industry is dominated by women from Scheduled Tribes (78.67%). And the remaining weavers consist of other communities respectively Scheduled Castes (3.33%), other Backward Classes (16%) and (2%) from the General category. It also shows that out of the respondents, 42.67%, have completed high school. 20% of weavers have an upper primary education, while 19.33% have a primary education. 20.67% have reached higher secondary education. This implies that a good portion of the weavers have a foundational level of education, while a relatively small percentage 2% of weavers are illiterate.

Table 2: Monthly Income of the Weavers

Monthly Income (Rs)	Number of respondents	Percentage
Less than 1000	1	0.67
1001-5000	25	16.67
5001-10000	86	57.33
Above 10000	38	25.33

Source: Primary Data

Challenges faced by Women Weavers

Several challenges obstruct the growth and profitability of the handloom sector in Baksa district. A significant majority (98.67%) of the women weavers mentioned high yarn prices as the most persistent issue affecting their production costs. Additionally, 36.67% reported that high transportation costs mainly in remote areas create a burden for their earnings and access to markets.

Table 3: Challenges faced by Women Weavers in Baksa District

Variables	Frequency	Percentage
Price of yarn is costly	148	98.67
Low quality	4	2.67
High transportation cost	55	36.67
Delayed payment	62	41.33

Limited local market	53	35.33
Not aware of Govt. benefits	131	87.33
Health Issues	68	45.34

Source: Primary Data

Note: Multiple response have been recorded

Another major problem they faced is delayed payments, which affects 41.33% of the respondents, disrupting their cash flow and financial planning. Furthermore, 35.33% of the weavers mentioned that they lack access to local markets or face limited demand, which restricts their ability to sell their products efficiently. Alarming, 87.33% of respondents were unaware of existing government welfare schemes designed for handloom workers.

Health issues are also prevalent among the respondents. Approximately 45.34% reported complaints such as back pain and eye strain, often resulting from prolonged hours of weaving under poor working conditions. These health constraints not only affect productivity but also reduce long-term engagement in the sector.

Factors Influencing Monthly Income of Women Weavers.

A multiple regression model has been employed to analyse the factors that affect the income of the weavers. In this model, the weaver's income is considered as a function of several factors: educational level, experience, number of earning members in the family, health-related issues, and membership in self-help groups (SHG).

The model is specified as follows:

$$MIW_i = \beta_0 + \beta_1 EDU_i + \beta_2 EXP_i + \beta_3 E_{MEM} + \beta_4 HEL_i + \beta_5 SHG_i + \mu_i$$

Where, MIW indicates monthly income of the weaver, EDU represents the total year of schooling of the women weavers, EXP indicates the year of experience in weaving activity of respondents. Likewise, E_MEM represents earning members in the household, HEL indicates the health problems related to weaving activity and lastly SHG refers to whether they are a member in any Self- Help Group.

Table 3: Result of Regression Analysis for the Income of the Weavers

Explanatory Variables	Estimated Coefficient	t-value
EDU	571.9312***	12.36
EXP	97.45334***	5.18
E-MEM	1453.131***	5.63
HEL	-670.472**	-2.15
SHG	-296.0697	-1.01
N	150	
R ²	0.75	
F (5,144)	86.43***	

Source: Primary data

Note: *, ** and *** indicates the significance levels at 10%, 5% and 1% respectively.

From the above table 3 it is clear that variables like education, experience, number of earning members and health have statistically significant impact on monthly income of women weavers with the expected positive sign. The result shows education, experience and earning members are statistically significant at 1% level, while health is significant at 5% level of significance with expected negative sign. The estimated coefficient for education level is 571.9312, with a t-value of 12.36, which is significant at 1% level. Higher education level is strongly related with higher monthly income. The monthly income rises by about Rs. 571.93 for every unit increase in education level. It is a universal truth that with an increase in education, one will be equipped with more knowledge and skills which ultimately helps to earn more. Likewise, experience also plays an important role in the earnings of individuals, especially in cases like weaving activity. More experienced individuals will have more knowledge of materials and also increased knitting speed of weavers. With a t-value of 5.18 and an estimated coefficient of 97.45334, experience is significant at 1% level. There is a positive relationship between higher income and more weaving experience. The monthly income improves by around Rs. 97.45 for each additional year of weaving experience. At 1% level of significance the estimated coefficient for the other earning members in the family is 1453.131, with a t-value of 5.63. This implies that having more earning members in the family significantly increases the income by Rs. 1453.13. As for the health-related problems, the coefficient is -670.472, which is statistically significant at 5% level of significance with t-value of -2.15. A weaver's monthly income is negatively affected by health problems. Health issues related to weaving decrease the income by Rs.670.47. The estimated coefficient for SHG membership is -296.0697, with a t-value of -1.01, which is not statistically significant. Membership in self- help groups does not have a significant impact on the monthly income of the weavers. F- statistic is 86.43, which is significant at 1% level; this suggests that the overall model is statistically significant. The R² value is 0.75 shows that there is a substantial correlation exists between the dependent and independent variables. The R² value indicates that 75% of the variation in weavers' income can be explained by the above-mentioned explanatory variables and in the model is also found to be a good fit.

V. CONCLUSIONS AND POLICY RECOMMENDATIONS

The study shows that weaving has significantly empowered women economically by increasing their income, savings, and purchasing power, which leads to greater financial independence. It has enhanced the role of the majority of women in household decisions, yet a section of the weavers stated that there is no change in their role in household decisions due to the dominance of male members of the family, young age group and lack of knowledge regarding household matters. This indicates progress in economic empowerment but also highlights the need for more comprehensive efforts to overcome social barriers for the women weavers. Weaving has significantly boosted the psychological empowerment of women weavers of the study area; most of the weavers are experiencing an increase in self-confidence and a sense of independence. The study suggests that weaving is primarily pursued by the weavers to supplement family income and to be able to pay for small purchases. A significant number of women weave to cover the educational expenses of children's schooling. For some, weaving is a means to compensate for the lack of other income sources. A notable number of weavers continue weaving beyond economic reasons to maintain its cultural significance.

Based on the study on women weavers in Baksa district, several policy suggestions can be used to support and enhanced the social, economic development of the weavers.

The findings reveal that a majority of the weavers are not aware of benefits or schemes available for weaving and handloom activities. Therefore, there is a need for awareness programmes that could promote the schemes and benefits associated with handloom weaving.

Schemes like low-interest loans for women weavers and establishment of cooperative societies to provide credit options can financially support the weavers.

To expand the marketing platforms, the weavers should be provided training on online sales so they can sell their products beyond the local market.

REFERENCES

- Choudhury, R. (2022). "Women Empowerment Through Handloom: A Study of Sualkuchi Block." *Journal of Emerging Technologies and Innovative Research*, Vol.9 No. (11), pp 290-295.
- Dutta, B. (2020). "Motivating Factors and Problems of Handloom Industry: A Study in Dhemaji District of Assam." *International Journal of Scientific and Technology Research*, Vol.9 No. (3), pp 7133-7137.
- Gohain, B.N. (2020). "Issue and Prospectus of the Women Handloom Weaver: A Small-Scale Level Investigation of Lakhimpur local in Assam." *Journal of Critical Reviews*, Vol.7 No. (4) pp 2164-2170.
- Hazarika, K. (2020). "Production Technology and Problems of the Handloom Textile Units: A case study on the Singphos of Assam." *International Journal of Management (IJM)*, Vol.11 No. (12), pp 2020-2029.
- Hujuri, A. (2023). "Problems of Handloom Weavers in Assam: A Case Study of Kamrup District, Assam." *Eur. Chem. Bull*, Vol.12 No. (8) pp 6264-6272.
- Kalita, R. (2019). "Involvement of Women of Assam in Handloom Weaving Industry: Exploring a Linkage with their Socio-Economic Conditions." *International Journal of Recent Technology and Engineering (IJRTE)*, Vol.8, No. (4), pp 1043-10456.
- Naidu, M.C., & Prathap, G. (2015). "Socio- Economic Conditions of the Hand Loom Weavers Vontimitta Mandal in Kadapa District of Andhra Pradesh." *International Journal of Managerial Studies and Research*, Vol.3, No. (1), pp 5-11.
- Narzary, M. (2021). "An Analytical Study on Handloom and Weaving Culture of Bodo Women in Kokrajhar District of BTR, Assam, India." *Journal of Emerging Technologies and Innovative Research*, Vol.8 No. (10), pp b871-b876.