



# LOCATING SUPPLY-SIDED BOTTLENECKS IN HANDLOOM INDUSTRY

## A CASE STUDY OF TAANTH WEAVERS FROM SANTIPUR, WEST BENGAL

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**Abstract :** The handloom industry is one of the largest cottage businesses in India. Because it requires a lot of labour, it is the second largest employer in rural areas after agriculture. India accounts for 95% of global handloom product exports, giving it a near monopoly. The sector is well-known throughout the country for its delicate, diversified, and high craftsmanship. India holds 344 GI tags, of which 202 are for handloom and handicraft products. However, the current state of the Indian handloom industry is concerning, particularly in terms of low productivity and innovation. The present study focuses on the supply-side bottlenecks to highlight the underlying issues affecting the development of the taanth industry. By analysing these aspects, we can identify the barriers that are specific for hindering production which can help us to make suitable recommendations for targeted policy interventions and strategic initiatives to foster growth within the industry. The findings indicate that the weavers are holistically lacking in all variables of supply side- technological aspects, production, low wages, lack of marketing and promotional activities.

**IndexTerms - Santipur, Handloom industry, taanth weavers, production, supply side.**

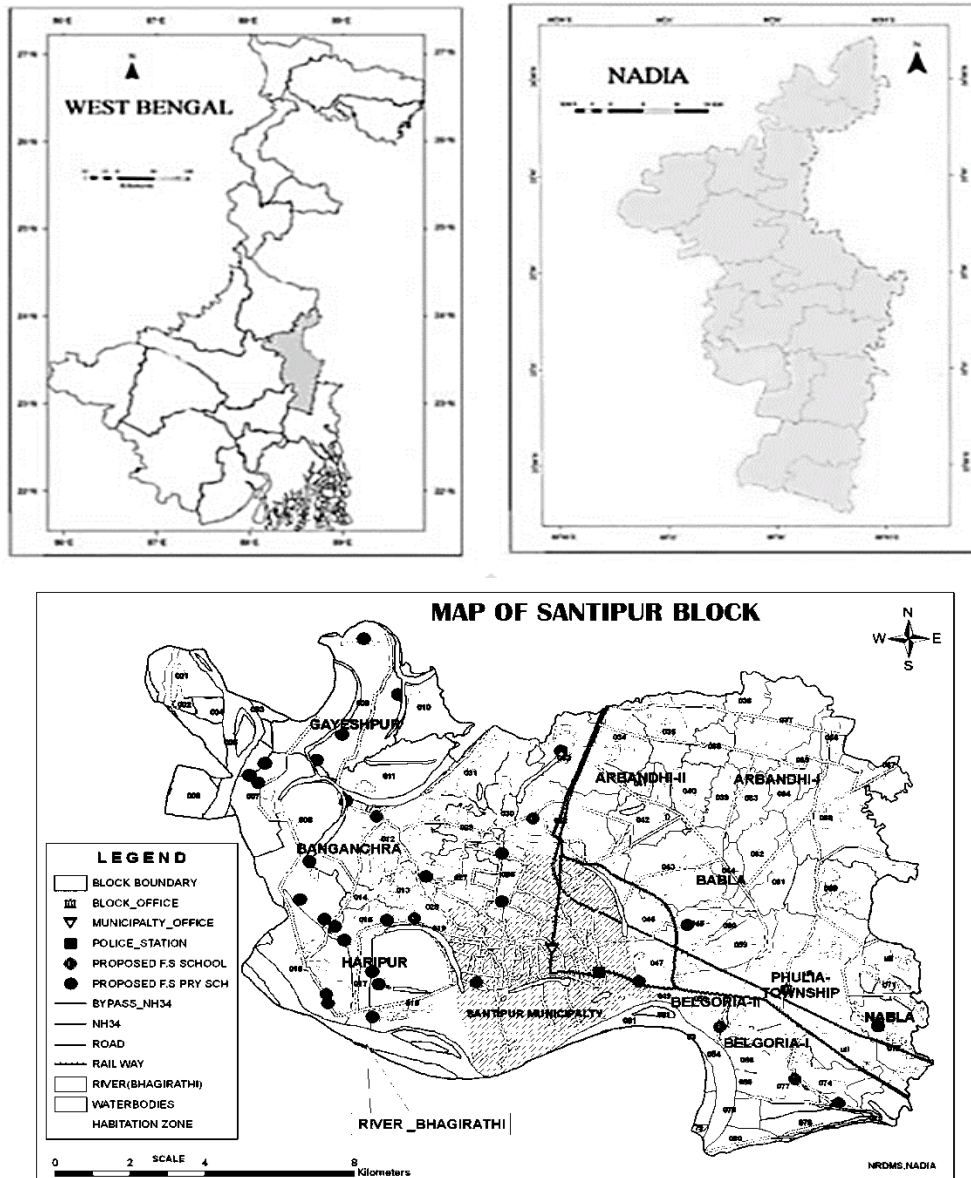
### I. INTRODUCTION

The traces of handloom activities in India can be tracked dated from the Indus valley civilisation and Vedic period civilisation of Aryans which are around 3000 BC and 1500 BC in the past. This sector has been a strong alibi for our rich cultural heritage and economic growth process. The role of this sector can be assessed from the massive figures in terms of its size, coverage, employment, and economic contributions. Employing 65.5 lakh people (NCAER, 1999) in weaving and allied activities, the sector stands at 2nd position after agriculture in terms of rural and semi-rural employment. However, ever since India's independence and even before it, the Father of Nation has promoted it and made it a mass movement Swadeshi Movement. The rationale was quite simple- being labour intensive, and small-scaled; reliance on this sector can lead to self-sufficiency meanwhile nurturing and ensuring handing over of indigenous exquisite artistic skills from one generation to another.

With the advent of technological upgradations and sophisticated machines, this sector has been exposed to a plethora of problems which has raised worries about its sustenance. Though every attempt is being made to uphold its glory and survival, the figures expressed in the recent reports indicate a distressing picture. There has been a consistent decline in the number of handloom weavers from 43.7 lakh (in 1987-88) to 34.7 lakh (in 1995-96) to 29.09 lakh (in 2009-10) and further to 26.73 lakh (in 2019-20). The same declining trend is witnessed in terms of the number of handlooms, which went down from 38.9 lakh (in 1987-88) to 32.9 lakh (in 1995-96) further to 23.77 lakh (in 2009-10). A declining trend can be observed in the number of weavers and allied workers making the average of 2.25 workers per handloom household unit in 1987-88 fall to 1.12 per unit in 2019-20. The number of Weavers and Allied Workers declined at a CAGR of (-)2.91% and number of handlooms declined at CAGR of (-)1.10% as reported by (Textiles Committee, Ministry of Textiles (GOI)).

### II. STUDY AREA- A GLIMPSE

Santipur-Phulia belt is approximately 90 kilometres away from Kolkata and is well connected to Kolkata city through both main line (Sealdah) and chord line (Howrah). These places are also well connected to waterways (NW-1) and by national highway (NH-12 erstwhile NH-34). Santipur has 1 block which is Phulia. There are 6 gram panchayats viz. Haripur, Bagaachra, Baabla, Belgoria, Nobla and Phulia Township. As per 2011 Census of India, population in Santipur is 2,41,080 (with nearly 63% rural & 37% urban population) and that of Phulia is 55,653. The proportion of workforce in both these places is nearly 42% for Santipur and that of 45% for Phulia region. The major economic activity in Santipur is cottage industry accounting for more than 70% of total population- weaving, amulet (maduli), brass industry and carpentry. Only about 20% of total population depends upon agriculture. As per the Second Handloom Census, there are approximately 24,497 looms in Santipur (with 10,610 looms only in Santipur Municipality).



Source: Santipur Municipality Website

### III. SANTIPURI TAANTH

Bengal’s handloom products range from coarse cloth to stellar fabrics woven using different fibres including cotton, silk and synthetic. As we move along the longitudes and the latitudes of the state, we can find an array of products from low-graded textiles woven with coarser yarns for indigenous market and local haats such as gamcha, dhuti, plain saris to superior quality saris, like “Daccai Jamdani”, “Tangail”, “Dhoneakhali”, “Santipuri”, “Baluchari”, “Begumpuri”, “Benarasi” for national and overseas markets. Each region is world-wide known for its woven product that is unique in its intricacies, design, style and pattern.

One of the products that needs no introduction is “Santipuri taant” sari, which holds its original sophistication and name till today. From a Bengali housemaid to the State Chief Minister Hon. Mamata Banerjee, “Santipuri taant” sari is a must-have for women from all income spheres. “Santipuri taant” and “Tangail” are specialised products of and are concentrated in Santipur and Phulia belt in the Nadia district of the State. Taant saris are popular because of their fine texture, long-lasting, colourful hand-painted motifs and everyday use.

### IV. A GIST OF LITERATURE RELATED TO SUPPLY SIDE ASPECTS

This part of the chapter provides a gist of literature specifically with the purpose of identifying the supply-side bottlenecks. Additionally, some more thesis and research works have been referred to for this purpose. Besides the existing literature, some factors affecting the production were identified from the field survey that are specific for the study area.

Table-2.1: Gist of Literature Review related to Supply Side of Weaving

Author	Study Area	Major Problems Identified
Khasnabis and Nag (2001)	Nadia, West Bengal	Exploitative controls exercised by mahajans leads to deskilling, which leads to low wage rate of weavers and informalisation of small weavers
Dharmaraju (2006)	Angara and Koyalgudem, Andhra Pradesh	Use of cheap dyes and excessive control exerted by the mahajans and local political leaders

Mitra <i>et. al</i> (2009)	Santipur, West Bengal	High cost of production and reduced profit level; lack of product and process innovation, and lack of initiative to adopt technological changes
Varghese and Salim (2015)	Kerala	Lack of government subsidies, lack of access to formal credit, high rate of interest, powerloom products offered at low price, technological differences between handlooms and powerlooms
Basak and Pal (2015)	Phulia, West Bengal	80%+ weavers are not affiliated to any cooperative societies, 57% of weavers rely on funds from mahajans and not formal credit sources, limited knowledge, lack of interest of weavers
John and Kamini (2015)	Thiruvananthapuram and Kannur, Kerala	Lack of entrepreneurial attitude and risk-taking motivation and ability, lack of aspiration and innovativeness among handloom entrepreneurs
Nikaido <i>et. al</i> (2015)	North-Eastern States	Low educational attainments, smallness of enterprise size, cumbersome registration and other paper work reduces access to formal credit sources. It also identified that due to poor land administration system, weavers face high cost of transaction, thereby face high collateral charges.
Khatoon (2016)	All India level	Shortage of yarn, high-priced raw materials, lack of quality dye, lack of credit accessibility, inadequate design support, lack of technological up-gradation and poor working conditions
Bindra (2017)	All India level	Lack of consumer awareness and knowledge about handloom products
Vyshnavi and Nair (2017)	All India level	Low production, low yield per output, slow weaving-speed, low speed to market
Goswami <i>et. al</i> (2017)	North-Eastern States	Outdated techniques, unorganised production modes, low productivity, lack of working capital, low market demand, lack of credit access, training, vocational education
Roy and Chouhan (2017)	Gangarampur Block in Dakshin Dinajpur, West Bengal	Weavers face financial constraints to purchase updated looms, low wages, high price of yarn, lack of domestic market and low demand, inadequate government schemes and support mechanism; poor living standards and low level of education attainments among weavers.
Singh and Srivastava (2018)	All India level	Poor wages, poor working conditions, competition from powerloom, inefficiency due to occupational health hazards
Mamidipudi and Bijker (2018)	Andhra Pradesh	Lack of innovation and skill-upgradation, challenge posed by powerloom, dynamism in demand and changing tastes and preferences of consumers

Source: Compiled by the Author

### 3.1 Sampling Design

In order to collect weavers' data, the stratified sampling technique has been used to form two distinct strata based upon the two regions- Santipur and Phulia in the following manner.

- a) Santipur Weavers (80 respondents)
- b) Phulia Weavers (80 respondents)

### 3.2 Research Methodology and Statistical Tools

To evaluate the supply-side aspect, related data was collected from 160 weaver-respondents through a structured questionnaire. The questionnaire consisted of close-ended questions wherein the weaver-respondents were asked to quantify their degree of agreement on a five-point ordinal scale ranging from 1 to 5, where 1 indicates 'Strongly Agree', 2 indicates 'somewhat agree', 3 indicates 'neutral', 4 indicates 'somewhat disagree' and 5 indicates 'Strongly Disagree'. Likert (1932)

The data reliability and internal consistency has been measured using Cronbach's alpha coefficient, while data validity has been checked using significance level for two-tailed tests of Pearson's correlation coefficient. Besides this, appropriate statistical tools such as mean, standard deviation (SD), coefficient of variation (CV) and independent sample 't-test' have been used for hypothesis testing.

### 3.3 Research Design- A Glimpse

- Nature of the Study: Exploratory Descriptive
- Study Area: Santipur and Phulia
- Sample Size: 160 weaver-respondents
- Variables included: 20
- Sampling Technique: Stratified random sampling
- Data Collection Method: Primary Survey through questionnaire
- Scaling: 5 points Likert Scale
- Reliability of Questionnaire: Coefficient of Cronbach's Alpha
- Validity of Questionnaire: Pearson's Correlation Coefficient

### 3.4 Results of Reliability Test

To begin with data analysis, first we start with the reliability test using Cronbach's Alpha coefficient. It measures the internal consistency of the items.

Table-3.1: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.779	.801	20

Source: Compiled by the Author

Considering the Cronbach's Alpha score, we can say that the alpha coefficient value lies between 0.70 to 0.79, which indicate good degree of reliability, hence, we can proceed further with data analysis.

#### IV. RESULTS AND DISCUSSION

##### 4.1 Results of Descriptive Statics of Study Variables

Table-4.1: Descriptive Statistics

Variables		Mean	Std. Deviation
Var1	Low wage rate	2.18	1.11
Var2	Low demand	2.81	1.1
Var3	Competition from powerloom and other products	2.76	1.051
Var4	Higher wages in 100-days work	2.45	1.027
Var5	Inferior quality of yarn	2.25	0.911
Var6	Idle looms and unused capacity	2.39	1.111
Var7	Confusing and inadequate government policies	2.16	0.708
Var8	Limited role of ICT	1.69	0.801
Var9	Insufficient electricity	2.83	1.1
Var10	Credit terms not conducive	2.63	0.867
Var11	Misuse of government policies	2.66	1.027
Var12	Infrastructural problems	2.17	0.913
Var13	Looms lack modernisation	2.99	1.231
Var14	Weavers lack skills	2.3	0.95
Var15	Weak promotional activities	3.06	0.899
Var16	Untimely supply of raw materials	2.31	0.904
Var17	Weavers lack zeal to produce	2.78	0.969
Var18	Difficulty in accessing loans from formal sources	2.78	0.951
Var19	Expensive raw materials	2.34	0.809
Var20	e-sales reduces weavers share of profit	3.47	1.015

Source: Computed by the Scholar

To check for the presence of outlier, we undertook the analysis of descriptive statistics. The computed values of mean and standard deviation have been tabulated in the Table-4.1. From the analysis of the mean values and standard deviation, there is no case of unengaged response, whereby, a respondent has checked all the extreme values say, either all strongly agree or strongly disagree. Hence, we can move ahead with the data analysis part.

##### 4.2 Low Wage Rate

The wage rate for the weavers has fallen nearly by 40% in the post-pandemic period. While before the pandemic, a handloom weaver used to get per day wage at the rate of Rs 140 to Rs 160 per day (depending upon the skill set and type of weave required), whereas, presently, the existing wage rate is Rs 80 to Rs 100 per day. Table 4.4 presents the data of weaver's opinion about wage rate.

Table-4.4: Low Wage Rate and Weaver Types

Type of Weavers		Do you think wage rate is low?					Total
		SA	A	N	D	SD	
Handloom Weavers	Count	26	35	11	4	2	78
	% within Type of Weaver	33.3%	44.9%	14.1%	5.1%	2.6%	100.0%
Powerloom Weavers	Count	21	32	14	8	7	82
	% within Type of Weaver	25.6%	39.0%	17.1%	9.8%	8.5%	100.0%
Total	Count	47	67	25	12	9	160
	% within Type of Weaver	29.4%	41.9%	15.6%	7.5%	5.6%	100.0%

Source: Computed by the Scholar from Primary Data

#### 4.3.2 Low Demand for Handloom Products and Challenge from Powerloom

Since the wage rate is low, so it was assumed that one of the probable reasons could be low demand for the handloom products. The low demand for the handloom products could be due to speed to market and oversupply of the imitated powerloom products. In other words, the powerloom sector is catering to the handloom consumers at the cost of sustenance of handloom sector. Table-4.5 indicates the cross tabulation between low demand and competition from powerloom and other products.

**Table-4.5: Low Demand \* Competition from powerloom and other products**  
Crosstabulation

Low Demand		Competition from powerloom and other products				
		SA	A	N	D	SD
	SA	10.0%	30.0%	17.5%	5.0%	0
	A	74.0%	11.7%	7.8%	3.9%	2.6%
	N	47.1%	32.4%	11.8%	5.9%	2.9%
	D	50.0%	33.3%	0.0%	0.0%	16.7%
	SD	33.3%	66.7%	0.0%	0.0%	0.0%
	Total	60.0%	22.5%	10.6%	4.4%	2.5%

Source: Compiled by the Scholar from Primary Data

During the primary survey, it was observed that many weavers were indeed concerned about the bulk penetration of machine-made sarees from Surat, that is going to pose challenge to the powerloom sector in Santipur. The data indicates that nearly 82.5% of the respondents are agreeing to the fact that powerloom and influx of other products have ruined the local market for taanth products.

**Hypothesis / H1:** There is a significant association between low demand and competition from powerloom and other products

The  $\chi^2$  statistics was used to analyse the association between low demand and competition from powerloom and other products. It was found that there exists is an significant association at 5% level of significance between low demand and competition from powerloom and other products ( $\chi^2 = 59.558$ ,  $df = 16$ ,  $p = 0.000$ ). Thus, H1 was supported.

**Table-4.6: Chi-Square Test**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	59.558	16	0.000
N of Valid Cases	160		

Source: Compiled by the Scholar from Primary Data

#### 4.3.3 Higher Wage in 100-Days MGNREGA with Certainty

MGNREGA aims to provide guaranteed employment of minimum 100-days work to every rural household to unskilled labourers during a financial year. The weavers find work under 100-days scheme relatively more lucrative due to certainty in receiving wages, higher wages comparative to weaving activities, lack of dependency on mahajans and work timing. Usually, the weavers give up weaving during the time they are engaged in 100-days work. When they are not engaged, then they work as daily workers on agricultural lands or as casual labours, since the wages in such activities are at par with MGNREGA scheme. Thus, due to income differences, many weavers have given up handloom weaving. They have either working as casual labourers or have sought work in powerloom sector.

**Table- 4.7: Higher wages in 100-days work**

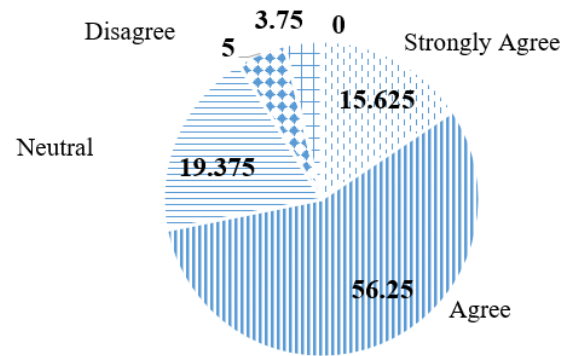
Do you find higher wages in 100-days work more attractive than weaving?		Frequency	Percent
Valid	Strongly Agree	49	31%
	Agree	74	46%
	Neutral	12	8%
	Disagree	17	11%
	Strongly Disagree	8	5%
<b>Total</b>		<b>160</b>	<b>100%</b>

Source: Compiled by the Scholar from Field Survey

#### 4.3.4 Inferior Quality of Yarn at Higher Price

Most of the handloom weavers were concerned about the cheap quality of inputs, particularly yarn and dyes. At present, the market is overfled by Chinese yarn and yarn from Surat, which are not pure cotton and kind of polyester blend. The quality of such yarn is such that the thread cannot stand against the power of wrap and weft of the handloom, and as a result, it often breaks. This deteriorates the finer look of the products. On the other hand, the high price of yarn has reduced the profit margin of the handloom products. The mahajans have in turn, slashed the wage rate, so as to keep their profit margin unaffected. The cheap quality of chemical dye that is used to colour yarn adds to the uneasiness of the consumer to wear the handloom products for daily use and for longer use. This is having a detrimental effect on the goodwill of the taanth product, as it hampers the differentiated feature of Santipuri taanth sarees of being skin and user-friendly. Originally, the taanth sarees were made up of 100% cotton-yarn, which are comfortable to wear for a day-long. But now, the fabric is leading to skin-problems and rashes.

**Figure-4.5: Do you think yarn input has deteriorated and it has become expensive?**



Source: Drawn by the Scholar

#### 4.3.5 Idle Looms and Unused Capacity

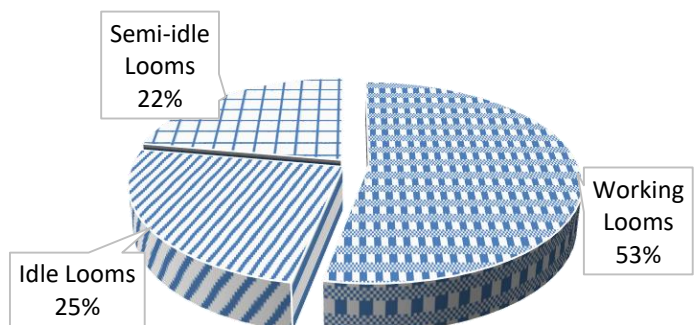
Idle looms imply underutilisation of productive capacity, which have a direct economic effect on the earnings of the weavers. Considering the peak and slack seasons of the taanth-products, looms have been defined as

- i) idle looms, which includes looms which are not-in-use for past one year and
- ii) semi-idle looms, which includes loom not-in-use for last six months.

The pie-diagram indicates that nearly 25% of the looms have been lying idle for last one year and 22.5% of the looms have not been in use for last six months. The situation is similar in both the regions. This is particularly for the handlooms where the weaver member of the family has migrated to other places, or the weaver has been engaged in either powerloom as hired weaver or has taken up some other means of livelihood. Three important reasons for the presence of the idle looms as stated by the weaver respondents are:

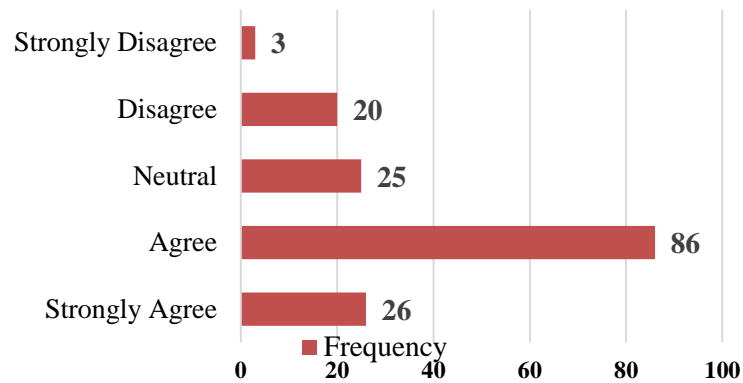
- a) Lack of market demand
- b) Penetration of cheap nylon-blend with cotton yarn from Surat
- c) Influx of cheap and bulk sarees from Surat in local haats

**Figure- 4.6: Proportion of Working Looms, Idle Looms and Semi-Idle Looms**



#### 4.3.6. Weavers lack Training and Skill up-gradation

One of the common problems that was encountered that around 70% of the handloom weavers lack access to training and continuous skill-upgradation. Only a few who are in association with the Weaver Co-operatives and big mahajans are the ones who have the access to training. The training programmes are organised by Weaver Co-operative Societies and Computer Aided Design Centre (CADC) (located at Handloom Development Office, Santipur) usually for a week's time. Those weavers who have attended asserted that the duration of training is so short that hardly we can learn new skills. Secondly, they don't get enough opportunities to practice those skills as they hardly get access to computer-designed modern patterns on regular basis. Consequently, the training is hardly effective, and the weavers prefer to produce older designs. This makes the products monotonous for the consumers.

**Figure-4.7: Weavers Lack Training and Skill upgradation**

#### 4.3.7. Lack Access to Trade Fairs and Exhibitions

Trade fairs and exhibitions act as great platforms where weavers from different states and regions can interact with each other, and they get to know different patterns and designs developed by the handloom weavers across the states. Such events also act as a great learning platform where there exists dissemination of technical know-how and variety of practices. However, only 9 weaver-respondents agreed that they participated in crafts and handloom fares that too only at the state level, while none of the weavers have ever attended trade fares outside the state of West Bengal. Some of the weavers from Phulia region have fair degree of knowledge of such trade fares due to their acquaintance with Shri Biren Kumar Basak (Padma Shri Awardee).

**Table- 4.8: Access to Trade Fares and Exhibitions**

Have you ever participated in trade fares and exhibitions?	Frequency	Percent
Yes	9	5.62%
Never	152	94.38%
<b>Total</b>	<b>160</b>	<b>100%</b>

Source: Compiled by the Scholar from Field Survey

#### 4.3.8. Limited Role of ICT and Lack of Looms Modernisation

One of the major shortcomings of the handloom industry is its failure to adapt so as to adopt ICT and modern designs. On the other hand, powerloom sector has embraced ICT and modernisation to the optimal level, which accounts for its speed to market, innovation, diverse products offerings and newer products to match the dynamic demand trends.

##### *Hypothesis*

*H1: There is a significant association between limited role of ICT and lack of modernisation of looms*

The  $\chi^2$  statistics was used to analyse the association between role of ICT and lack of modernisation of looms. It was found that there exists is an significant association at 5% level of significance between low demand and competition from powerloom and other products ( $\chi^2 = 35.137$ ,  $df = 12$ ,  $p = 0.000$ ). Thus, H1 was supported.

**Table-4.9: Looms lack modernisation \* Limited role of ICT Crosstabulation**

		Limited role of ICT				Total	
		SA	A	N	D		
Looms lack modernisation	SA	Count	24	2	0	0	26
		% within Looms lack modernisation	92.3%	7.7%	0.0%	0.0%	100.0%
	A	Count	13	12	3	0	28
		% within Looms lack modernisation	46.4%	42.9%	10.7%	0.0%	100.0%
	N	Count	19	19	2	2	42
		% within Looms lack modernisation	45.2%	45.2%	4.8%	4.8%	100.0%
	D	Count	14	23	8	4	49
		% within Looms lack modernisation	28.6%	46.9%	16.3%	8.2%	100.0%
	SD	Count	7	5	3	0	15
		% within Looms lack modernisation	46.7%	33.3%	20.0%	0.0%	100.0%
Total	Count	77	61	16	6	160	
	% within Looms lack modernisation	48.1%	38.1%	10.0%	3.8%	100.0%	

Source: Compiled by the Scholar using Data from Field Survey

**Table-4.10: Chi-Square Test**

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	35.137	12	0.000
N of Valid Cases	160		

Source: Computed by the Scholar

## 5. Summary and Conclusion

The present condition of the handloom weavers in West Bengal is deplorable. It may be improved in future, but it will not be effective without effort and implementation of the right policies. To be successful in this effort, Directorate of Textiles (Handloom, Spinning Mills, Silk Weaving & Handloom based Handicrafts Division), State Government and the PWCSs of West Bengal have to put more emphasis on the production aspects. Efforts need to be directed to make handloom weaving as financially viable occupation, so as to revive the interest of the future generation. At the same time, adequate provision are to be made in terms of credit, finance, and accessibility of ICT and technical know-how.

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