

DETERMINANTS OF MARKETING OF HANDLOOM PRODUCTS ACROSS HETEROGENEOUS WEAVING BUSINESS UNITS: A STUDY OF RURAL ASSAM

Saddam Faruque* and Pradyut Guha**

Abstract

Success in marketing plays an important role in the growth and extension of rural non-farm informal sectors. The present study made an attempt to understand the marketing success among diverse groups of handloom weaving business units and factors determining the marketing of handloom products through the lens of weaving business units in rural Assam. Besides descriptive and inferential statistics, multiple linear regression method was applied for the analysis of data. The results of the study show that the success of marketing in terms of sales volume and revenue was significantly higher among the master weavers. Factors like years of schooling of handloom weaving entrepreneurs, business experience, working hours, storage capacity, advance payment requirement, number of handloom competitors in village, transportation cost, communication expense, and proximity to market significantly influenced the marketing across heterogeneous weaving business units in the study area. Steps towards the improvement of rural market infrastructure and road connectivity by taking a slew of suitable policies by Central and state governments may allow the rural handloom weavers to get better access to the market, which in turn, may assist in the promotion of sales.

Keywords: Rural Informal Business, Master Weaver, Independent Weaver, Household Business.

* Research Scholar and **Assistant Professor, Department of Economics, Sikkim University, 7th Mile, Tadong, Gangtok, Sikkim - 737102; Email: faruquesaddam@gmail.com, pguha@cus.ac.in

Introduction

In India, handloom weaving is the largest economic activity next to agriculture, providing direct and indirect employment to nearly 3.15 million households, out of which 87.40 per cent are rural households (Ministry of Textiles, 2020). The sector contributes nearly 15 per cent of the total cloth production of the country (Strategic Investment Research Unit, 2021). Nevertheless, the sector has been facing several challenges in recent years, viz. shortage of raw materials, inadequate working capital, lack of financial support, weak marketing link, and stiff competition from the power loom and mill sector (Srinivasulu, 1994; Raju & Rao, 2014). Furthermore, the demonetisation in 2016 followed by the introduction of Goods and Services Tax (GST) in 2017 has put the livelihoods of lakhs of handloom weavers at risk (Bhattacharya & Sen, 2018). The outbreak of COVID-19 pandemic and consequent nationwide lockdown have further pushed back the Indian handloom sector (Das & Sutradhar, 2020). The marketing of handloom products has been the most commonly faced problem by the rural handloom entrepreneurs of the country. Schumpeter (1911) recognised the importance of marketing in a world of business characterised by a high degree of risk and uncertainty. Being a household-based activity with a rural informal business set up, there is a greater involvement of master weavers or middlemen in controlling the marketing of handloom products leading to the exploitation of rural weavers (Niranjana, 2004; Annapurna, 2006). Small-scale rural weavers have no direct access to either markets or market information while master weavers can correctly estimate the market demands in terms of price, quality, and design, and therefore to a larger extent control the marketing (Niranjana, 2004). Hence, understanding the factors assisting or impeding the marketing of handloom products has important policy implications in rural informal business.

Amongst Indian states, Assam is home to the largest number of handloom households, having 40.37 per cent of the country's total and the state has absorbed the highest percentage (36.45 per

cent) of the country's handloom workforce (Ministry of Textiles, 2020). The crisis in the handloom sector in recent years is reflected in its production and number of looms across Indian states, with Assam no exception in this list. As per the third handloom census of India, the number of handlooms in Assam has declined from 1.4 million in 1987 to 1.32 million in 1995, and further declined to 1.11 million in 2010. During 2002-03 till 2019-20, handloom cloth production in the state recorded a 48.20 per cent fall in output (Government of Assam, 2020). Following the imposition of COVID-19 induced national lockdown from 24th March 2020, the scarcity of silk yarn has been one of the most prominent challenges faced by the weavers in the state. The lockdown announced just two weeks ahead of Bohag Bihu, which is a peak season for the handloom industry, was a nail in the coffin for the handloom weavers in Assam. In addition, the marketing of handloom cloths has been a major challenge for rural weavers in Assam in recent years as the local markets were being flooded with imported power loom products. Undoubtedly, there is presence of vast literature on agricultural marketing, but studies about the marketing of rural non-farm informal sector like handloom are conspicuous by its absence. The present study made an attempt to understand the marketing of handloom products and its determinants across heterogeneous weaving business units in rural Assam.

Heterogeneous Weaving Units in Assam

There are three types of weaving units in Assam, namely independent weavers, master weavers, and cooperative societies. The identification process of these weaving units was based on how capital, labour and yarn are sourced by handloom weavers, how their finished products reach the market, and so on (Srinivasulu, 1994). Firstly, the independent weaver units are identified as those in which weavers themselves perform all the functions relating to the weaving business, i.e. from buying yarn from markets, sizing, warping, weaving, and finally selling out of post-woven

products, all on their own or taking the help of family members only. They do not employ hired labourers at weaving units. Accessory operations like pirn-winding are mostly performed by the children and older women of the family. In the study area, independent weavers own, on average, two looms, which are operated by family labour. Secondly, master weavers are identified as those who employed hired weavers besides engaging themselves in weaving activity. Master weavers have a common shed for weaving where hired weavers undertake production activities and get wages according to the work performed by them. The master weaver usually supplies the looms, raw materials and designs to the weavers working in his/her weaving shed, and once the product is woven, does the marketing. In the study area, master weavers own, on average, seven looms which are operated by hired labourers. The concept of handloom cooperative society in the state was introduced under the Assam Co-operative Society Act 1949 for the organised development of the handloom sector. There is a three-tier cooperative system in the state comprising apex level society, regional/district level society, and primary weavers' cooperative society (PWCS), where PWCS undertake production activities with their weaver members. The only apex-level handloom cooperative society in the state is Assam Apex Weavers and Artisans Cooperative Federation Ltd. (ARTFED). The basic business of ARTFED is to supply yarns to the member PWCS, procure finished products of hand-woven fabrics from them and sell the products through their established showrooms inside and outside the state. As per a recent audit, though there are about 4012 numbers of PWCS registered under the directorate in the state, most of them were identified as non-functional. In the study area, it has been observed that the status of PWCSs is mostly non-functional and their weaver members are working either under master weavers or independently.

Literature Review

Marketing is one of the major entrepreneurial

activities in the world of business (Datta & Sarkar, 2020). The marketing ability of an entrepreneur plays a crucial role in determining his/her success in business (Rao & Manikyam, 2012). The success in marketing leads to the development and extension of rural informal sectors (Datta & Sarkar, 2020). However, the rural non-farm informal sectors like handloom are less able to grab the advantages of emerging market opportunities for selling their products as compared to modern firms (Sulistyo & Siyaminah, 2016). The challenges faced by rural artisans in India are often neglected by Central and state governments (Solanki, 2008). Niranjana (2004) reported that limited expertise and impoverished socio-economic background of rural handloom artisans pose challenges for them in marketing their hand-woven products. The business performance of the handloom sector also depends on the organisational structure of the business. In India, the handloom sector is primarily divided into three segments, viz. master weavers, independent weavers, and cooperative system. Dev et al. (2008) found that the business performance of master and independent weavers depends on the performance of cooperatives, and well-performing cooperatives were seen to be the best safeguard for the handloom sector in Andhra Pradesh. While investigating the roles of master weavers in the value chain of the handloom weaving business, Singh and Kumar (2018) reported that all the weaving-related activities were controlled by master weavers, whereas marketing activities were under the control of middlemen. Chakravorty et al. (2010) pointed out that due to the absence of a marketing organisation, independent weavers were forced to sell their products in local buyer markets with low profit margins while a part of the products reached the local markets through middlemen for resale. However, there is an absence of knowledge regarding marketing success among a diverse group of weavers in Assam.

The marketing of rural non-farm products depends on several important factors, viz. socio-demographic factors, firm inputs, commuting and sales promotional factors, and enabling factors.

Socio-economic factors such as gender, age, education, and business experience have a significant impact on the marketing of rural artisans' products (Zhang et al., 2017; Hazarika & Goswami, 2018; Parker, 2018). Hazarika and Goswami (2018) mentioned that education tends to facilitate better access to market information, business knowledge, and a better understanding of the possible advantages of the handloom weaving business. Business experience leads to the acquisition of knowledge and skills and the expansion of business networks (Parker, 2018). The sales promotional and commuting factors such as advertisement, transportation, communication, market information, etc., have significant impacts on marketing performance (Goswami et al., 2017; Hazarika & Goswami, 2018; Pham et al., 2019). Researchers have acknowledged the role of transaction costs in the marketing of agricultural products (Soe et al., 2015; Zhang et al., 2017; Pham et al., 2019). Favourable conditions in transaction cost factors like distance to weekly hut, nearest town, and retail handloom outlets may complement handloom weavers towards product diversification, supply chain management, market discovery, and thus a higher volume of sales of their products. Existing marketing literature on non-farm sector spheres on diverse issues, but empirical attempts investigating the success and determinants of marketing of handloom products across diverse groups of weavers are hard to come by. The present study is an attempt to bridge such a gap in literature.

Objectives of the Study

1. To examine the success in marketing of handloom products among diverse groups of weaving units in rural Assam.
2. To identify the factors determining the marketing of handloom products across weaving business units in rural Assam.

Hypothesis

The present study has measured the marketing

of handloom products in terms of sales volume (SV) and sales revenue (SR) earned by handloom weaving units in the study area during the financial year (FY) 2019-20. Thus, the hypotheses formulated for this study are as follows:

H₁: Market outreach or SV and SR increases with additional years of schooling and business experience.

H₂: Length of working hours in handloom weaving business units has a positive association with SV and SR.

H₃: The SV and SR increase with the increase in the number of handloom competitors in the village.

H₄: Greater spending on transportation and communication helps in the realisation of a higher level of SV and SR by the handloom weaving business units.

Methodology

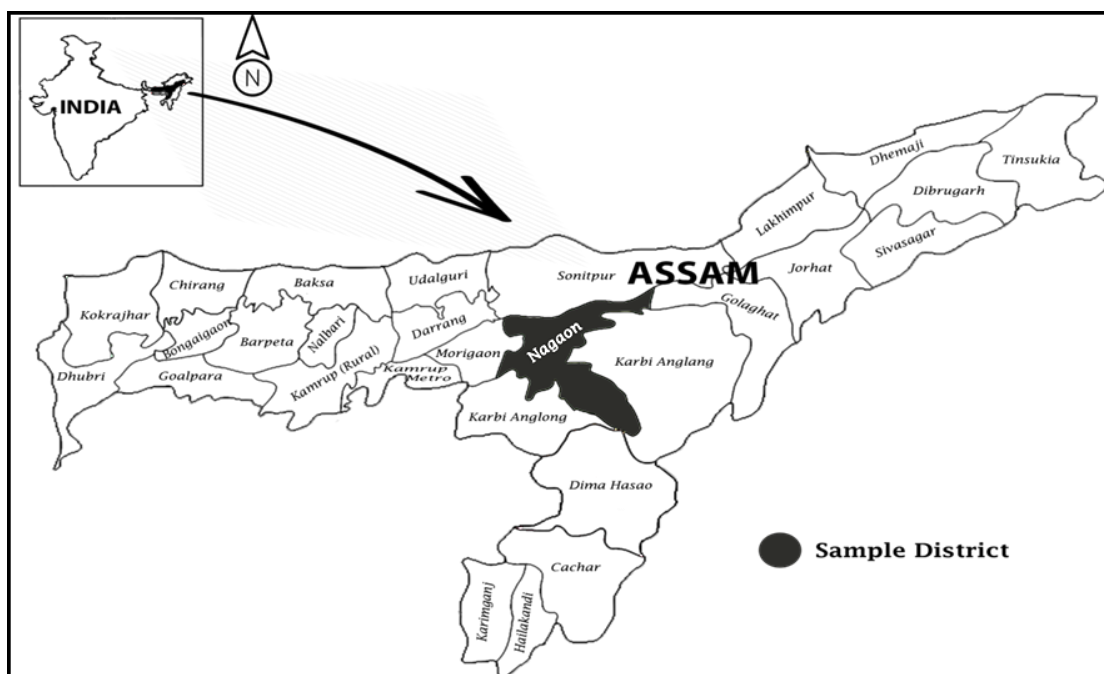
Data and Sample: The present study is based on the primary data collected from 144 handloom weaving business units (households) in Nagaon district of Assam. As most of the PWCSs in the study area were seen to be non-functional, the respondents of the study are master and independent weavers. Primary data was collected during September-December 2020 using a multistage sampling technique. Given the vastness of universe of the study, it was decided to carry the study in Nagaon district in the central Brahmaputra valley region of Assam (Figure 1). Initially, Nagaon district was selected for its importance as the largest contributor to the production of handloom products in Assam sharing 8.38 per cent of the total handloom cloth production of the state (refer Appendix A). In the second stage, four community development (CD) blocks having a larger concentration of business units undertaking weaving activities on a commercial basis were selected purposively from the selected district. In the third stage, three villages were selected from each CD block based on a greater concentration of commercial weaving households. Finally, from each of the sampled villages, 12 commercial

handloom weaving business units were selected randomly with a break up of six master weaver units and six independent weaver units. In this way, a sample of 144 handloom weaving business units from 12 villages has been selected at random. The primary data has been collected with a carefully designed interview schedule through personal interviews with the owner of the handloom weaving units. The present study also undertook a few rounds of focus group discussions (FGDs) to obtain

in-depth information about the handloom weavers and cross-verify a few parameters. Besides the volume of sales and revenue earned from the sale of handloom products, household-level data was collected on other broad heads, viz. socio-demographic characteristics of weaving entrepreneurs, firm input, commuting and sales promotional cost of the firm, factors representing sale and order received by weavers, and enabling factor of the handloom weaving units.

Figure 1

Study Area Showing the Sample District in Assam



Source: Authors' modification from mapsofindia.com

The summary statistics show that weaving business owners of the study area are middle-aged adults with an average age of 43 years (Table 1). The mean years of schooling of handloom entrepreneurs is 7.75 years with nearly two decades of business experience on average. The sampled business units engaged 2.51 full-time workers in weaving activities in the study area with 1.35 as the average number of staff managing the weaving business activities. During FY 2019-20, on average, 8,269 hours of labour were used for producing handloom cloths. The storage capacity

across sampled weaving business units in the study area was found to be 700 pieces, on average, of handloom products. The interval period of sale among the weavers in the study area was found to be 10 days on average, while they could access the market information about the price and quantity demand of handloom products in a mean interval period of two weeks. The average selling price of Mekhela-Chador across sampled weaving business units was INR 231.64 and it was INR 235.87 for Gamosa. The nearest weekly hut (weekly market), retail handloom outlet, and

Table 1*Summary Statistics*

<i>Non-categorical variables</i>	<i>Units</i>	<i>Mean</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Age	Year	43.52	7.08	20	60
Years of Schooling	Year	7.75	2.86	0	15
Business experience	Year	19.67	5.52	4	30
Number of full-time workers	Number	2.51	2.50	0	11
Management staff	Number	1.35	0.98	0	3
Working hours	Hour	8269	6383	1150	27146
Storage capacity	Piece	699.65	705.09	0	705.09
Frequency of selling	day	10.31	7.14	1	30
Frequency of market information	day	16.28	12.48	1	30
Price of Mekhela-Chador	INR	1231.64	478.74	590	2000
Price of Gamosa	INR	235.87	84.49	90	350
Advance payment requirement	Percentage	21.15	12.73	0	40
Distance to the retail handloom outlet	KM	10.20	5.72	0	26
Distance to the weekly hut	KM	4.38	2.61	0	10
Distance to the nearest town	KM	11.26	5.87	0	26
Transporting cost	INR	2107.50	1980.52	0	8600
Advertisement cost	INR	797.99	1080.33	0	4000
Communication expense	INR	739.93	409.80	0	1500
SV of Mekhela-Chador	Set	392.88	438.89	19	2000
SR from Mekhela-Chador	INR	321416.0	288277.4	32900	1242900
SV of Gamosa	Piece	552.82	468.72	48	2000
SR from Gamosa	INR	88918.75	66161.1	12240	316800
<i>Dummy variables</i>					<i>%</i>
Gender	Male				40.97
	Female				59.03
Mode of acquisition	Self-started				27.08
	Inter-generational				72.92
Production on order basis	Yes				78.47
	No				21.53
Mode of selling	Direct sale				65.97
	Indirect sale				34.03
Credit sale	Yes				79.86
	No				20.14

Source: Field Survey.

nearest town from the sampled weaving units are seen to be located at average distances of 4.38, 10.20, and 11.26 kilometres, respectively. Taking into account the marketing cost of handloom products across the weaving units, it can be seen that the average cost of transportation of finished products to the selling point was INR 2107.50 during FY 2019-20. The mean expenditure on advertisement was INR797.99 and the expense for mobile phone communication for sales promotion was INR739.93 (Table 1). Thus, a substantial amount of money was spent on transportation by the weaving units with the amount of spending on advertisement and sales promotion minimal for marketing their products in the study area.

It can be seen from Table 1 that most (59.03 per cent) of the sampled weaving business units are owned by females in the study area. Regarding the mode of acquisition of the weaving business, it can be noticed that 72.92 per cent of sampled business units carry the weaving activities inter-generationally, while only 27.08 per cent are self-started businesses. To eliminate the risk of product selling or to avoid a positive inventory of handloom products, handloom weavers in the study area perused the practice of production based on placing orders in advance. Nearly 78 per cent of weavers' units produced handloom items based on the order placed by their business clients in advance. The required share of advance payment by business clients on placed orders was, on average, 21.15 per cent of order value. It has been observed that 65.97 per cent of weavers sold their woven products directly to customers, whereas 34.03 per cent took the help of intermediaries. The practice of sale on credit is commonly followed for attracting customers and sales promotion in rural informal businesses. Nearly 80 per cent of the

sampled weavers in the study area used to sell their woven products on credit.

The average volume of sales of Mekhela-Chador was 392.88 sets¹ with the average revenue generated from the sale of the product was INR 3, 21,416 among the sampled business units during FY 2019-20. Again, regarding the marketing of Gamosa, it has been found that the volume of sales and revenue earned from Gamosa in the study area was 552.82 pieces and INR 88,918.75, respectively, during FY 2019-20 (refer to Table 1).

Analytical Framework: The marketing of handloom products in the present study has been measured in terms of the volume of sales and revenue earned from the sale of handloom items by the business units during FY 2019-20. Besides descriptive and inferential statistics, the study used regression method for the analysis of data. There are mainly three types of weaving business units in Assam, viz. master weaver, independent weaver, and cooperative societies. Since handloom weaving business in the study area is mostly carried by the master and independent weavers, an attempt was made to understand whether the success of marketing handloom products is confined to a particular group of weaving business units in the study area by applying an independent sample t-test. The factors determining the marketing of handloom products across the weaving business units in the study area were assessed using multiple linear regression analysis. The empirical model for examining the determinants of SV among the handloom weaving business units in the study area is fitted as in equation (I)

$$y_j = x' \beta + z' \lambda + g' \theta + h' \gamma + v \alpha + \varepsilon \quad (I)$$

Where, y stands for $(n \times 1)$ vector of SV of the handloom weaving business unit; j stands for volume of sales of two different products such that $j = 1$ if Mekhela-Chador (SV^{mc}) and $j = 2$ if Gamosa (SV^g); x is $(n \times 1)$ vector of socio-demographic

characteristics of weaving entrepreneurs viz. gender (Gn), age (Ag), years of schooling (YoS), business experience (Exp); z is $(n \times 1)$ vector of firm input such as number full-time workers (FW), number of managing staff (MS), working hours

(*WH*), storage capacity (*SC*); *g* is (*n*×1) vector of commuting and sales promotional factors of the firm viz. transportation cost (*TC*), advertisement cost (*AdC*), communication expense (*CE*), frequency of market information (*FM*), number of competitors (*NC*); *h* is (*n*×1) vector of factors representing sale and order received by weavers such as mode of sale (*SM*), frequency of selling (*FS*), production on order basis (*OBP*), advance

payment requirement (*APR*), credit sale (*CS*); *v* is (*n*×1) vector of enabling factors such as distance to the retail handloom outlet (*DRO*), distance to the nearest town (*DNT*), and distance to the weekly hut (*DWH*); *ε* is (*n*×1) column vector of *n* disturbances; *n* = 1,2, ...,144 individual handloom weaving business unit.

Again, the empirical models for examining the determinants of SR being fitted in equation (II);

$$b_i = x' \beta + z' \lambda + g' \theta + h' \gamma + v' \alpha + \eta \quad (II)$$

Where, *b* stands for (*n*×1) vector of SR of handloom weaving unit; *i* stands for SR of two different products such that *i* = 1 if Mekhela-Chador (*SR^{mc}*) and *i* = 2 if Gamosa (*SR^g*); *η* is (*n*×1) column vector of *n* disturbances. The figures of SR were arrived after taking the product of volume of sales of the individual handloom weaving unit with the price at which the product was sold by the respective weaving units during FY 2019-20. The present study applied the ordinary least square (OLS) technique for the estimation of fitted

equations (I and II). The fitted equations I and II have been estimated after taking the natural logarithm of the non-categorical variables. The suitability of OLS in the present study is subject to the assumption that our residuals have zero mean, constant variance, and are not correlated with themselves or other variables. The descriptions of variables of the study and their anticipated relationship with the dependent variables are presented in Table 2.

Table 2

Descriptions of Variables of the Study

Variables	Descriptions (FY 2019-20)	Anticipated relationship with	
		SV	SR
Dependent variables			
Sales volume (SV)	Number of units of the product sold by weaving unit (measured in piece/set)		
Sales revenue (SR)	Total sales revenue generated by weaving unit in INR		
Independent Variables			
Types of weaver unit (TWU)	1 for master weaver unit and 0 for independent weaver unit;	+/-	+/-
Price (P)	Price at which the product was sold by weaving business unit (in INR);	+/-	+/-
Mode of acquisition (MoA)	1 for self-started business and 0 for inter-generational;	+/-	+/-
Gender (Gn)	Gender of the handloom weaving unit's owner 1 for male and 0 for female	+/-	+/-
Age (Ag)	Age of the business unit's owner in year	+/-	+/-
Years of schooling (YoS)	Years of schooling of the weaving business owner	+	+
Business experience (Exp)	Number of years spent in the weaving business	+	+
Number of full-time workers (FW)	Number of full-time workers engaged in weaving activities	+	+

Contd...

Variables	Descriptions (FY 2019-20)	Anticipated relationship with	
		SV	SR
Dependent variables			
Sales volume (SV)	Number of units of the product sold by weaving unit (measured in piece/set)		
Sales revenue (SR)	Total sales revenue generated by weaving unit in INR		
Independent Variables			
Number of managing staff (MS)	Number of staff managing the business	+	+
Working hours (WH)	Total working hours by the weavers and allied workers	+	+
Mode of sale (SM)	1 for direct sales and 0 for indirect sales	+/-	+/-
Storage capacity (SC)	Storage capacity in weaving units in pieces	+	+
Frequency of selling (FS)	How frequently the finished product was sold, measured in days	+	+
Production on order basis (OBP)	1 for yes and 0 for no	+/-	+/-
Advance payment requirement (APR)	Advance payment required on order basis production in % of order value	-	-
Credit sale (CS)	Practice of selling on credit; 1 for yes and 0 for no	+	+
Transportation cost (TC)	Cost incurred in INR for transporting handloom products to the selling point	+	+
Advertisement cost (AdC)	Cost incurred in INR for advertising handloom products	+	+
Communication expense (CE)	Cost incurred in INR for communicating with business clients over mobile phone	+	+
Frequency of market information (FMI)	How frequently (in days) market information was obtained;	+	+
Number of competitors (NC)	Number of commercial handloom households in the village	+/-	+/-
Distance to retail handloom outlet (DRO)	Distance of weaving unit from the nearest retail handloom outlet in kilometre	+/-	+/-
Distance to the nearest town (DNT)	Distance of weaving unit location from the nearest town in kilometre	-	-
Distance to the weekly hut (DWH)	Distance of weaving unit location from the nearest weekly hut in kilometre	-	-

Source: The Authors.

Results and Discussion

Marketing Success across Weaving Business

Units: Table 3 presents the results of independent sample t-test between the two groups of weaving business units, viz. master and independent weaver units. The results show that there is a statistically significant difference in mean SV and SR of handloom products between the two groups of weaving business units with mean SV and SR being higher amongst the master weaver units relative to the independent weaver units for both the products Mekhela-Chador (MC) and Gamosa. Such results confirm that the success of marketing in terms of SV and SR is significantly higher among the master weavers' group in the study area. In line with the finding of Srinivasulu (1994) in Andhra

Pradesh, with the marginalisation of weavers' cooperative societies and the resource constraints of independent weavers, the master weaver system has become dominant in the production and marketing of handloom products in Assam.

Determinants of Marketing of Handloom

Products: The empirical results of fitted models for factors determining SV and SR drawn from handloom products across weaving business units in the study area are presented in Table 4. The robustness check of the fitted regression models was done prior to deciding the final results. The high R^2 values accompanied by significant F statistics in each of the four models indicate that the estimated regression models give a good fit to the data.

Table 3*Test of Significance of Mean Difference*

Variables	Master Weaver	Independent Weaver	Mean Difference	t statistic
SV of MC	676.07 (54.93)	109.69 (10.57)	566.37***	10.12
SR from MC	544136.7 (29710.32)	98695.56 (6684.75)	445441.1***	14.63
SV of Gamosa	897.75 (49.97)	207.89 (17.24)	689.86***	13.05
SR from Gamosa	139427.5 (6818.44)	38410 (2023.27)	101017.5***	14.20

Source: Field Survey.

Notes: ***p<0.01; Figures in the brackets are standard errors.

The mean VIF values of independent variables in all four models indicate that the estimated models are free from multicollinearity issues. The Breusch-Pagan/Cook-Weisberg test confirms the presence of heteroscedasticity in models 1, 2 and 4; hence heteroscedasticity consistent robust standard errors are reported for the results arrived for these models in Table 4.

Determinants of SV of Mekhela-Chador: Taking into account the SV of Mekhela-Chador, the estimated results (Model 1) show that selling price, working hours, frequency of selling, storage capacity, advance payment requirement, number of handloom competitors, and distance to the weekly hut significantly influenced the volume of sales of the product (Table 4). In general, price is expected to be an important factor influencing the sales volume of a commodity. The negative significant coefficient of selling price implies that keeping other variables constant, a 1 per cent increase in the price charged by the weaving business unit has reduced the SV of Mekhela-Chador by 1.13 per cent. Such a result may be because of the operation of the law of demand, with increased price leading to a fall in demand, thereby indirectly lowering the sale of the product. Since close substitutes of Mekhela-Chador are seen to be available in the market at a competitive price, any fractional increase in the price of the product by handloom weaving units made their product less attractive to the customers, thereby lowering their

sale of handloom items (as per FGDs). The influence of working hours of weavers and allied workers on the SV of Mekhela-Chador is found to be positively significant. Hence, an additional hour of engagement in handloom weaving activities has helped in raising the SV of the product. Such a result is consistent with the finding of Sujan et al. (1994) who argued that the length of time devoted to work has a positive association with SV.

Since handloom weaving is a highly labour-intensive profession, engaging more labour hours in weaving and allied activities might have helped in enhancing the sales of Mekhela-Chador. Moreover, the storage capacity has a favourable influence on the SV of Mekhela-Chador with a coefficient value of 0.57, which implies that, ceteris paribus, a 1 per cent increase in the capacity of storage for handloom product increases the SV of Mekhela-Chador by 0.57 per cent. Thus, an expansion of storage capacity has helped in realising higher sales of Mekhela-Chador among the weaving business units in the study area. Such a result corroborates the finding of Arnold et al. (2009) that storage size increases the selling efforts of entrepreneurs. Field survey experiences reveal that handloom entrepreneurs with larger storage capacity had bigger business partners (traders) to whom they sell their finished products in inventory at larger quantities with an interval of time (e.g. weekly, fortnightly or monthly). In contrast, the frequency of selling finished products

was found to have an inverse significant relationship with the SV of Mekhela-Chador, which is contrary to our expectations. The estimated coefficient implies that, the shorter the time interval of sale, the lower the volume of sales. Interestingly, the advance payment requirement is found to have a positive and significant impact on the SV of Mekhela-Chador. With a 1 per cent increase in advance payment requirement when an order is placed by a business client or customer, the SV of Mekhela-Chador increases by 0.07 per cent. Such a result may be due to the fact that receipt of advance payment from trader or customer helps the weaving business units to cover part of the risk in production and sets them free from uncertainty of future positive inventory. Kenton (2020) mentioned that advance payments could assist manufacturers who did not have enough capital to purchase the raw materials to fulfil a large order. Since the estimated coefficient of the number of handloom competitors is positively significant, an increase in the number of competitors in villages has helped in raising the SV of Mekhela-Chador amongst the weaving business units in the study area. Mahajan et al. (1993) reported that the addition of new competitors can expand the volume of market, because market entry is usually accompanied by increases in product variety, promotional activity and fall in prices. Field experiences suggest that traders took a greater interest in visiting those villages that have a larger number of competitors for purchasing handloom products for resale in remote markets. However, distance to the weekly hut is found to have a significant inverse association with SV of Mekhela-Chador implying that the further the distance to weaving business unit location from the weekly hut, the lesser the volume of sales of the product. Proximity of weaving units to the weekly hut normally gives an exposure of fetching a wide range of customers, which in turn, complements the sales in larger volume, while the opposite was true for those weavers dispersed at a distant location. In addition, higher commuting costs can also discourage sellers or traders which might have influenced the SV in the study area.

Determinants of SV of Gamosa: With regard to the factors influencing SV of Gamosa, the estimated results (Model 2) show that selling price, working hours, mode of selling, transportation cost, communication expense, and distance to the nearest town and the nearest retail handloom outlet have a significant influence on the volume of sales of the product (Table 4). The negative significant coefficient of the mode of selling implies that the volume of sales was lower amongst the weaving business units that have sold their finished product directly to ultimate customers relative to those who sold it via middlemen. It means that involvement in direct selling to ultimate customers is associated with meagre sales of the product in the study area. This result supports the finding of Park et al. (2018) as it was found that producers who planned to sell their products through direct marketing to consumers experienced a decline in total sales.

Field experience suggests that the weaving activity is controlled by weaving business units, whereas marketing activity is controlled by middlemen or traders in the study area. Thus, direct selling without approaching the middleman or traders has lowered their sales, while indirect selling via middlemen or traders has helped in achieving a higher volume of sales. However, transportation cost has turned out to be positively significant implying that a 1 per cent increase in the cost of transportation helped in increasing the SV of Gamosa by 0.04 per cent. Such result may be because of the fact that transportation of handloom products to larger markets, fairs, expos, and exhibitions at remote places has complemented the larger volume of sales of the products in the study area. A similar observation was made by Mamonov and Poluektov (2021) as it was reported that the value of transport cost has a significant impact on sales volume. Furthermore, the positive significant coefficient of communication expense indicates that with a 1 per cent increase in communication expense in terms of mobile phone recharge for communicating with business clients, the SV of Gamosa has increased by 0.06 per cent. This indicates that the higher the communication expense, the larger the volume of sales in the case

Table 4

Determinants of Marketing of Handloom Products

Equation	Equation I		Equation II	
	Model 1	Model 2	Model 3	Model 4
Dependent variables	lnSV ^{mc}	lnSV ^g	lnSV ^{mc}	lnSV ^g
Breusch-Pagan/ Cook-Weisberg test	$\chi^2(1) = 7.23$ Prob> $\chi^2 = 0.01$	$\chi^2(1) = 4.95$ Prob> $\chi^2 = 0.03$	$\chi^2(1) = 1.54$ Prob> $\chi^2 = 0.21$	$\chi^2(1) = 11.39$ Prob> $\chi^2 = 0.00$
TWU	0.07 (0.15)	0.27 (0.18)	0.14 [0.12]	0.16 (0.11)
MoA	0.05 (0.08)		0.08 [0.06]	
lnP	-1.21*** (0.10)	-0.64*** (0.08)	-0.22** [0.08]	0.45*** (0.09)
Gn		-0.03 (0.08)		
lnAg		0.31 (0.21)		
lnYoS				0.20*** (0.06)
lnExp				0.13* (0.08)
lnFW				-0.01 (0.09)
lnMS				0.10 (0.08)
lnWH	0.38** (0.15)	0.15 (0.12)	0.35*** [0.11]	0.66*** (0.14)
OBP		0.62*** (0.17)		-0.10 (0.09)
lnSC	0.48*** (0.13)	-0.21 (0.16)	0.52*** [0.11]	-0.02 (0.11)
lnFMI		0.07 (0.15)		
lnAPR	0.07** (0.03)	-0.01 (0.04)	0.06* [0.03]	
lnFS	-0.10*** (0.04)		-0.12*** [0.03]	
SM		-0.18** (0.09)		
CS	0.07 (0.14)		0.05 [0.15]	
lnNC	0.23** (0.10)		0.24*** [0.09]	0.09 (0.09)
lnTC	-0.00 (0.01)	0.04*** (0.01)	0.00 [0.01]	0.01 (0.01)
lnAdC	0.00 (0.01)		0.00 [0.01]	0.00 (0.01)
lnCE	-0.03 (0.03)	0.06** (0.03)	-0.02 [0.02]	0.01 (0.02)
lnDRO	0.03 (0.05)	-0.28*** (0.10)		-0.24*** (0.07)
lnDNT		-0.32*** (0.09)		-0.29*** (0.07)
lnDWH	-0.13** (0.06)	-0.10 (0.07)	-0.040 [0.04]	-0.05 (0.05)
Constant	5.30*** (1.47)	2.16* (1.28)	5.62*** [1.41]	2.03* (1.12)
R ²	0.95	0.87	0.94	0.91
Adjusted R ²	0.94	0.85	0.93	0.90
F	308.94*** {14, 129}	110.95*** {15, 128}	134.11*** {13, 130}	102.71*** {16, 127}
Mean VIF	5.66	4.08	5.79	4.62
N=144				

Source: Field Survey.

Notes: ***p < 0.01, **p < 0.05, *p < 0.10; Figures inside [] Standard Error; Figures inside () Robust Standard Error; Figures inside { } are degrees of freedom.

of Gamosa. In contemporary times, mobile communication is increasingly important for better management and promotion of any business. Effective and frequent communication through mobile phone with business clients might have helped in obtaining market information, product promotion, and thereby better sales realisation. Distance to the nearest town is seen to have a negative and significant relationship with the SV of Gamosa. Such a result was quite intuitive as the remoteness of the weaving unit location from the nearest town has reduced the SV possibly because of higher commuting costs, discouraging the traders and sellers.

Determinants of SR Drawn from Mekhela-Chador: Taking into account the factors influencing the revenue earned from the sales of Mekhela-Chador, the estimated results (Model 3) show that working hours, storage capacity, advance payment requirement, and number of handloom competitors have a positive and significant association with SR (Table 4). Again, the selling price, frequency of selling, and distance to the nearest town turned out to be negatively significant in connection with SR earned from Mekhela-Chador. Since increased working hours, storage capacity and number of handloom competitors in the village have helped in increasing the SV of the product (as per the results of Model 1), it helped in raising the SR from the product among the weaving business units in the study area.

Determinants of SR Drawn from Gamosa: With reference to the factors influencing SR drawn from Gamosa (Model 4), it has been found that an increase in the selling price of the product has increased the SR across the sample weaving units in the study area. The years of schooling of the entrepreneur is found to be a positive significant determinant of SR in the case of Gamosa. Hence, an additional year of schooling improved the business skills of the handloom weaving entrepreneur, thereby helping them realise higher SR. The business experience of handloom entrepreneur has a positive and significant association with SR, which implies that the

additional year of experience in the weaving business has helped the sampled weavers in realising higher revenue from the sale of Gamosa. Schumpeter (1911) mentioned the importance of skill and education of the entrepreneur in undertaking innovations in launch enterprises for exploiting opportunities for profit in a business world characterised by a high degree of risk and uncertainty.

Focus Group Discussions

During the field survey, a few focus group discussions (FGDs) were carried out with handloom weavers to understand the problems faced by them in marketing their products. The observations from FGDs are briefly discussed below.

The finished products of Mekhela-Chador and Gamosa produced by indigenous weavers faced stiff competition from powerloom products imported from other states by large traders. Due to the availability of comparatively low-cost powerloom products in the market, there is low demand for hand-woven cloths in the market despite its tradition and richness in quality. Therefore, the price of handloom cloths cannot be raised corresponding to the increases in the prices of raw materials such as yarn. Further, large traders can attract customers for their imported products through various sales promotional activities, but the same cannot be affordable for handloom weavers due to their financial constraints. Though the master weavers to some extent can access profitable markets for their larger production and financial wellness, independent weavers cannot access such markets. Independent weavers mostly depend on master weavers or middlemen for the sale of their woven cloths. There is no organisational initiative to promote and market handloom cloths produced by small-scale weavers in the study area. The PWCSs of the study area are mostly non-functional because of the irregular supply of raw materials and inordinate delay in payments. The major reason for the irregularity and

non-functioning of PWCSs is, in fact, the increasing prevalence of corruption in the cooperative system of the state. The weaver members of PWCSs are currently working under master weavers or independently at their homes for livelihoods. There are some financial inclusions and social security schemes for weavers launched by Central and state governments such as Weavers Mudra Scheme, Pradhan Mantri Jeevan Jyoti Bima Yojana, Pradhan Mantri Suraksha Bima Yojana, etc. However, most of the handloom weavers in the study area are unaware of such schemes. The implementation of such schemes has not reached the rural areas where handloom weaving activities are carried out on a commercial basis. Furthermore, as reported by weavers, handloom weaving being a rural-based activity, banks expressed limited interest in providing credit to them. Thus, credit unavailability emerges as one of the binding constraints in the marketing of the rural handloom products in the study area.

Conclusion and Policy Implication

Success in marketing plays an important role in the growth and extension of rural non-farm informal sectors. The present study made an attempt to understand the marketing success in handloom business among diverse groups of weaving business units and the factors determining the marketing of handloom products. The results of the study show that the success of marketing in terms of sales volume and sales revenue was significantly higher among master weaver units in

the study area. Factors like years of schooling of weaving entrepreneurs, business experience, working hours, storage capacity, advance payment requirement, number of handloom competitors, transportation cost, and communication expense are significant determinants of marketing across weaving business units. However, enabling factors such as the distance of weaving units from the markets are seen to be inversely associated with SV and SR of handloom weaving business units in the study area. Steps towards the improvement of rural market infrastructure and road connectivity by taking a slew of suitable policies by Central and state governments may allow the rural handloom weavers to get better access to the market, which in turn, may assist in the promotion of sales. The existing government policies for marketing handloom products in the state are implemented only through large-scale entrepreneurs, thus limiting the reach of those policies for rural small-scale weavers. Government-organised agencies (such as JAGARAN) running under Assam Apex Weavers and Artisans Cooperative Federation Ltd. (ARTFED) are mostly agglomerated in cities, manifesting no interest in procuring products from rural handloom weavers. Therefore, policy initiative is desirable for widening the reach of organised agencies in procuring handloom items directly from rural weavers. Inclusive policy initiatives for the handloom sector, irrespective of the scale of operation and organisational structure, may also be a complementary decision. Narrowing down the study geographically to one district of Assam with two products is the caveat of this study.

End Notes

1. A set consists of one piece of Mekhela and one piece of Chador.

Author Contributions:

Both the authors contributed towards the preparation of the original draft, review and editing for finalisation of the manuscript.

References

- Annapurna, M. (2006), Transitioning Markets: Transcending Consumption, *Economic and Political Weekly*, 41(31), 3388-3393.
- Arnold, T.J., Palmatier, R.W., Grewal, D. & Sharma, A. (2009), Understanding Retail Managers' Role in the Sales of Products and Services, *Journal of Retailing*, 85(2), 129-144.
- Bhattacharya, R., & Sen, S. (2018), Pride and Prejudice: The Condition of handloom Weavers in West Bengal, CSE Working Paper 2018.
- Chakravorty, R., Datta, P., & Goshe, J. (2010), Sericulture and Traditional Craft of Silk Weaving in Assam, *Indian Journal of Traditional Knowledge*, 9(2), 378-385.
- Das, A. & Sutradhar, R. (2020), Handloom Weavers and Lockdown in Sualkuchi Cluster of Assam, *Economic and Political Weekly*, 55(39), 23-25.
- Datta, D. B., & Sarkar, B. (2020). The Effectiveness of West Bengal State Khadi Mela as Organisational Marketing Tool, *SEDME (Small Enterprises Development, Management & Extension Journal)*, 47(1), 64-77.
- Dev, S.M., Galab, S., Reddy, P.P., & Vinayan, S. (2008). Economics of Handloom Weaving: A Field Study in Andra Pradesh, *Economics and Political Weekly*, 43(21), 43-51.
- Goswami, K., Hazarika, B., & Handique, K. (2017). Determinants of Financial Risk Attitude among the Handloom Micro-Entrepreneurs in North East India, *Asian Pacific Management Review*, 22, 168-175.
- Government of Assam (2020). "Statistical handbook of Assam, 2020", Directorate of Economics and Statistics, Guwahati.
- Hazarika, B. and Goswami, K. (2018). Micro-Entrepreneurship Development in Handloom Industry: An Empirical Analysis among the Tribal Women in Assam, *International Journal of Rural Management*, 14 (1), 22-38.
- Kenton. W. (2020), available at: <https://www.investopedia.com/terms/a/advance-payment.asp> (accessed 8 January 2021)
- Mahajan, V., Sharma, S. & Buzzell, R. D. (1993). Assessing the Impact of Competitive Entry on Market Expansion and Incumbent Sales, *Journal of Marketing*, 57(3), 39-52.
- Mamonov, V., & Poluektov, V. (2021). "The Impact of Transport Costs on Sales in Supply Chains", In: Murgul, V. and Pukhkal, V. (Eds) International Scientific Conference Energy Management of Municipal Facilities and Sustainable Energy Technologies EMMFT 2019. EMMFT 2019. Advances in Intelligent Systems and Computing, Vol 1258. Springer, Cham.
- Ministry of Textile (2020). "Fourth All India Handloom Census Report, 2019-20", Government of India, New Delhi.
- Niranjana, S. (2004). Thinking with Handlooms Perspectives from Andhra Pradesh, *Economic and Political Weekly*, 39(6), 553-563.
- Park, T., Paudel K. & Sene, S. (2018). Sales Impacts on Direct Marketing Choices: Treatment Effects with Multinomial Selectivity, *European Review of Agricultural Economics*, 45(3), 433-453.
- Parker, S.C. (2018). "The Economics of Entrepreneurship", Cambridge: Cambridge University Press.

- Pham, T.T., Theuvsen, L., & Otter, V. (2019). Determinants of Smallholder Farmers' Marketing Channel Choice: Evidence from the Vietnamese Rice Sector, *Asian Economic Journal*, 33(3), 281–300.
- Raju, G. N. & Rao, K. V. (2014). A Study on the Socio-Economic Conditions of Handloom Weavers, *Journal of Rural Development*, 33(3), 309-328.
- Rao, K. R. M., & Manikyam, K. R. (2012). Marketing Strategies of Small Scale Retailers - A Study. SEDME (*Small Enterprises Development, Management & Extension Journal*), 39(1), 43–57.
- Schumpeter, J.A. (1911). "The Theory of Economic Development - An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle", Harvard University Press.
- Singh, S., & Kumar, R. (2018). Handloom Entrepreneurship and Government Intervention: A Case Study of Varanasi, *Pacific Business Review International*, 10 (9), 126-134.
- Soe, W.P., Moritaka, M., & Fukuda, S. (2015). An Analysis of the Factors Influencing Marketing Channel Choice by Paddy Rice Farmers in Myanmar, *Journal of the Faculty of Agriculture, Kyushu University*, 60 (2), 535–42.
- Solanki, S.S. (2008). Sustainability of Rural Artisans, *Economic and Political Weekly*, 43(19), 24-27.
- Srinivasulu, K. (1994). Handloom Weavers' Struggle for Survival, *Economic and Political Weekly*, 29(36), 2331-2333.
- Strategic Investment Research Unit (2021). "Weaving India's Future- Investment in the Handloom Sector", Retrieved on 10th September 2023 from Weaving India's Future – Investment in the Handloom Sector (investindia.gov.in)
- Sujan, H., Weitz, B.A. & Kumar, N. (1994). Learning Orientation, Working Smart, and Effective Selling, *Journal of Marketing*, 58(3), 39-52.
- Sulistyo, H., & Siyamtinah. (2016). Innovation Capability of SMEs through Entrepreneurship, Marketing Capability, Relational Capital and Empowerment, *Asia Pacific Management Review*, 21(4), 196-203.
- Zhang, B., Fu, Z., Wang, J., Tang, X., Zhao, Y. & L. Zhang, Y. (2017). Effect of Householder Characteristics, Production, Sales and Safety Awareness on Farmers' Choice of Vegetable Marketing Channels in Beijing, China, *British Food Journal*, 119(6), 1216–31.

Appendix A: District-wise Handloom Cloths Production in Assam during 2019-20

District	Handloom cloths production (in metre)	Percentage share in total handloom cloths production in Assam
Nagaon	15014.15	8.38
Kamrup (Rural)	14045.80	7.84
Karbi Anglong	11754.68	6.56
Baksa	10875.00	6.07
Dhemaji	10317.66	5.76
Biswanath	10040.50	5.60
Golaghat	9498.60	5.30
Dhubri	9280.50	5.18
Jorhat	8667.10	4.83
Kamrup (Metro)	8610.69	4.80
Lakhimpur	8100.00	4.52
Kokrajhar	6869.20	3.83
Darrang	6814.19	3.80
Nalbari	5600.64	3.12
Goalpara	5429.00	3.03
Morigaon	4900.00	2.73
Barpeta	4383.75	2.45
Sonitpur	4346.89	2.42
Karimganj	3865.00	2.16
Tinsukia	3246.47	1.81
Cachar	2884.15	1.61
Majuli	2732.00	1.52
Udalguri	2166.00	1.21
Dibrugarh	2099.00	1.17
Charaideo	1875.00	1.05
Bongaigaon	1807.80	1.01
Sivasagar	1120.00	0.62
Dima Hasao	1009.75	0.56
Hailakandi	807.00	0.45
Hojai	720.00	0.40
Chirang	387.80	0.22
South Salmara	0.00	0.00
Assam	179268.32	100

Source: Government of Assam, 2020.

Note: Karbi Anglong district including west Karbi Anglong.