

Determinants of the Income of Cane and Bamboo Craft Artisans: A Study in Sivsagar District of Assam

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ABSTRACT:

Cane and bamboo craft is one of the prominent craft of Assam which falls under village and cottage industry. It has the potentiality of creating employment opportunities as well as generating income to the households of Assam both in rural and urban areas. But due to unorganized nature, the artisans engaged in cane and bamboo craft have failed to reap the benefit from lucrative market and have to live in object poverty with very little income left in their hands. This study examines the factors determining cane and bamboo craft artisans' income in Sivsagar district of Assam. Following multi-stage sampling technique, 51 artisans household were selected as samples. To investigate the factors which determine the income of the artisans, a multiple linear regression model has been fitted by taking income of the artisans as the dependent variable and age of the artisans, their education level, experience in handicraft activities and number of hired labour as independent variable. It is found that all the variable included in the model have positive significant influence in artisans' income.

KEYWORDS: Cane and bamboo craft, cottage industry, artisans, Sivsagar, Assam

INTRODUCTION:

Cane and bamboo craft is a traditional art form which runs through various states of India especially in the North-Eastern region. As per the Assam Khadi and Village Industries Board Act, cane and bamboo craft industry falls under village and cottage industry. As defined by Khadi & Village Industries Commission, any industry located in a rural area which produces any or renders any services with or without the use of power specified from time to time is called village industry. Village industries are mainly concerned with the processing of raw materials for local markets with simple techniques (<http://akib.Assam.govt.in>).

Bamboo, popularly known as giant grass, plays an important role in providing livelihood, ecological and food security of the mankind. It has more than 1575 species in 75 genera in the world (Gupta, 2008). Bamboo is one of the commercially cultivated crops in India and which can be used in many industrial plants. Cane and bamboo are integral part of the rural economy which provides subsistence activities, employment opportunities and income to the rural people. Cane is largely used for furniture making while bamboo is used for all kind of items from jewellery to decorative items. At present cane and bamboo craft is mainly a household industry which occupies an important place among the handicrafts of Assam. Since, it uses mainly labour intensive techniques; therefore it provides employment opportunities to highly skilled artisans as well as illiterate poor farmers who can take it as subsidiary

occupation. At present there are 503 centers of cane and bamboo craft in Assam providing employment opportunities to 5210 people (Statistical Handbook Assam, 2021). This sector is not only a major employer of the state but also has immense potential to occupy international market. There is a good demand for cane and bamboo products in international market. Due to its immense potentiality the budget 2018 announced Rs. 1290 crore for bamboo farmers and it was one of the focus sector of Global Investors' Summit 2018.

Cane and bamboo can be considered as the most convenient and easily available economic resources to remove rural poverty. It can boost the economy of the local people without compromising their other socio-cultural and traditional needs and aspiration. As mentioned by Vijayagopalan (1993), the craft and handicraft sector is the largest decentralised and unorganized sector of the Indian economy. The micro and small size enterprises are geographically decentralised in nature, use local resources and bring greater equality of income and distribution which ensure balanced regional development (Mitra & Paul, 2017). In spite of their potentiality in employment creation and poverty alleviation the cane and bamboo craft industry have to face various challenges. Since the sector is functioning in an unorganised manner therefore it has to face the problems like availability of raw materials, lack of proper market, lack of finance, inappropriate technology etc. In cases where the artisans do not have proper knowledge about the market price of the products they are deprived of actual economic benefits. Those producing the craft reap the fewest benefits from the lucrative market, and even the most talented often live in object poverty (Adhikary et al., 2010). Thus the socio-economic condition of the handicraft artisans is not up to the mark. Therefore, this paper is an attempt to investigate the determinants of income of the cane and bamboo craft artisans in Nemuguri area under Sivsagar district of Assam. This paper also tries to analyse the problems faced by the artisans in the sample area. An attempt has been made in this paper to provide an answer to the research question what are the determinants of income of the handicraft artisans in the sample area.

STATEMENT OF THE PROBLEM:

Cane and bamboo craft occupies an important place among the handicraft of the state. At present this craft is mainly a household and rural industry. Cultivators in rural areas take this craft as a subsidiary occupation and engage themselves for manufacturing different products that are meant for domestic and agricultural use. Only a few highly skilled artisans take it as a full time occupation and produce only fine decorative items for commercial sale. As mentioned by Adhikary et al. (2010), the current state of India's artisans is a matter of serious concern. Those producing the craft reap the fewest benefits from the lucrative market and even the most talented often live in object poverty. Income of the cane and bamboo artisans is not stable and because of this they have to struggle to break the cycle of poverty. Shah and Patel (2017) in a study mentioned that artisans mostly work in traditional and unorganized sector. Middleman takes out a substantial share of profit leaving very little for the artisans. Although rural artisans can play a pivotal role in village economy, often grouped along with agricultural labourers and non-farm workers, the problems faced by rural artisans are often neglected. As a result they have to leave their traditional profession and migrate to urban centers in search of better employment opportunities (Solanki, 2008). In light of the above it is very important to investigate the factors determining income of the cane and bamboo artisan. The paper tries to provide an answer to the research question what are the factors that determine the income of the artisans in the study area.

CONCEPTUAL FRAMEWORK:

To investigate the determinants of income Cottage, Micro and Small Scale Enterprises in Jigawa state, Nigeria Sai'du et al. (2015) used multivariate regression model. By using linear regression model Aikwali (2010) found the determinants of rural income in Tanzania. To identify the determinants of rural household livelihood status Omotesho et al. (2019) used multiple regression model. Similar study is conducted by Roy and Mukherjee (2015) to investigate the determinants of income generation in rural sericulture sector of West Bengal. Zakiya et al. (2020), by using multiple linear regression analysis found that working hour, skill variation and work experience have a positive and significant effect on the income of batik artisans. Mukaila et al. (2021) also adopted multiple regression analysis to determine the effect of selected socio-economic variables on income distribution in rural Nigeria. As mentioned by the researcher multiple regression is an extension of linear regression which is used in predicting a scalar response variable by two or more explanatory variables. In this study multiple linear regression model is used to examine the determinants of income of the cane and bamboo artisans in the study area. Because Mukaila et al. (2021) in their study used multiple linear regression where dependent variable was a continuous variable and six explanatory variables were used to predict its outcome. In the present study also, the dependent variable is a continuous variable and four explanatory variables are included in the model to explain the variations in the dependent variable. Some other previous studies where multiple regression model has been used are Kwaghe et al. (2009), Nzabakenga et al.. (2013), Fadipe et al. (2014).

DATA AND METHODOLOGY:

The data for the study have been collected from 51 sample artisans of Sivsagar district of Assam by canvassing a structured interview schedule during the month of May, 2018. Multi-stage sampling technique has been used to draw the samples. There are significant numbers of handicraft artisans found in different villages of Sivsagar district. The district is mainly divided into two sub-divisions. Under these two sub-divisions there are nine development blocks in the district out of which Demow development block has been purposively selected for the study. From Demow development block Nemuguri area is purposively selected on the basis of the concentration of handicraft artisans. Under Nemuguri area there are nine villages, out of which three villages namely, Nakatani, Patia and Boropial Habi have been randomly selected. In Nakatani village, there are 150 households out of which 65 households are engaged in handicraft activities. Similarly in Patia and Boropial Habi there are 50 out of 160 households and 55 out of 145 households who are engaged in handicraft activities respectively. From each village 30 percent of the household engaged in handicraft have been selected for intensive investigation. Thus the sample consists of 51 households.

To investigate the factors which determine the income of the artisans, a multiple linear regression model has been fitted by taking income of the artisans as the dependent variable and age of the artisans, their education level, experience in handicraft activities and number of hired labour as independent variable. Few other studies have also used the linear regression model to examine the determinants of income (Sa'idu et al. 2015 ; Jeyarajah 2015 ; Aklimawati et al. 2016). The basic model hypothesized and estimated is-

$$Y_t = (X_1, X_2, X_3, X_4)$$

Where, X_1 = Age of the artisans, X_2 = Educational qualification of the respondent, X_3 = experience and X_4 = Number of hired labour used

The linear equation estimated as-

$$Y_t = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + u$$

Where, β_0 is the constant term, β 's are the regression coefficients or u is the stochastic disturbance or error term.

Explanation of the variables included in the model:

Age:

Sa'idu et al. (2015) mentioned that older the entrepreneur the higher the performance of the enterprise he managed. A unit increase in entrepreneur's age on average tends to increase the income generation of the Cottage, Micro and Small enterprises in Nigeria by 11.2%. Jeyarajah et al. (2015) also found age as the important determinant of Fisher's annual per capita income in the small scale fisheries in Sri Lanka.

Educational qualification:

Education is an important variable influencing the income of the artisans. This is because as education level of the artisans increases, their income also increases. Sa'idu et al. (2015) found that a unit addition to entrepreneur's level of education will raise his enterprise's income by 9.9%. This may be due to the fact that if the artisans are well educated they can easily apply improved technology in the production process which results in higher income.

Experience:

Experience is another important variable which can determine the artisan's income. An experienced person can manage the production process more efficiently by incurring low cost which increases their income. The experience of the respondents of the enterprise contributes to the efficient use of existing resources in the enterprise with the help of low cost technological intervention for profit maximization (Adhikary et al., 2010).

Hired labour:

Quantity of hired labour used can also be a determinant of artisan's income. In a study conducted by Mafimisebi (2008) in Nigeria found that amount of hired labour used positively influence farm income in case of Cassava enterprise.

RESULTS AND DISCUSSION:

Table 1.1: Result of regression analysis

Variables	B Coefficients	t-statistic	Significant
Constant	-16798.3	-6.244	.000
Age of the artisans	235.941	2.905***	.006
Hired labour	1226.001	2.139**	.038
Educational qualification	2650.117	2.768***	.008
Experience	1216.096	5.733***	.000
F=57.455 *** R ² = .833 Adjusted R ² = .819			

*** Significant at 1% level, ** Significant at 5% level

Source: Field Survey

The F value is 57.455 which is found to be significant at 1percent level. The meaning is that the independent variables included in the model could properly explain the variation in the dependent

variable. The R^2 value is found to be .833 which implies that about 83 percent of the variations in income of the artisans are explained by the hypothesized variables.

The results show that all the variables included in the model have significant positive impact on artisan's income. Among these, age of the artisans, educational qualification and experience are significant at 1 percent level while hired labour used is significant at 5 percent level.

Table 1.1 depicts that a unit increase in artisan's age on an average tends to increase the income generation of the artisans by 235.941 units. Again, the slope coefficient of hired labour indicates that if use of hired labour changes by a unit, artisans' income on the average changes by 1226.001 units. Similar interpretation is applicable for educational qualification and experience. A unit addition to artisan's education level will raise his income on an average by 2650.117 units. Again, if experience of the artisans increases by one unit income on an average increases by 1216.096 units.

Problems Faced by the Cane and Bamboo Artisans in the Study Area: Although cane and bamboo have been an occupation of many Assamese people for a very long time, it is still operating at the subsistence level. Since, for a section of rural people it is the only source of their livelihood, therefore they cannot abandon it. But due to very slow growth rate of this sector, a very small percentage of the population is engaged in it. Cane and bamboo craft in Assam has been facing a large number of economic and non-economic problems. As a result number of working centers has been declined from 508 numbers in 2010-11 to 500 numbers in 2015-16. Again, total employment also reduced from 4978 to 4950 between this period (Statistical Handbook of Assam 2011 and 2016). The problems faced by the artisans need to be addressed properly so that this sector can emerge as a potential sector for creating employment opportunities. The various problems faced by the cane and bamboo artisans in the study area were-

Lack of Market structure: Lack of proper market is the most important problem faced by the artisans in the study area. The middlemen or traders purchase the Cane and Bamboo products from the artisans and they sell these products at a higher rate in the market. But the artisans do not have market linkages and as a result they do not get real prices for their products. Thus market facility for the sample artisans is not a satisfactory one.

Lack of Machinery: Lack of machinery is another problem faced by the rural artisans. They produce their products by using traditional old equipments. The traditional equipment failed in the area of technological up gradation. Use of modern technology has the advantage of producing quality products at larger quantity at an affordable rate. But, due to financial constraint the sample artisans cannot use modern machinery or other improved technology to produce their products. As a result, the products produced by the artisans fail to compete with machine made products.

Lack of Transportation facility: Lack of transportation facility is another problem faced by the sample artisans in the present study. It is found that due to lack of proper transportation facility the artisans have to face difficulties to carry out their products into distant markets.

Lack of raw material: Lack of raw materials is another problem faced by the artisans. 66.7% of the sample artisans reported that availability of raw materials is not adequate for them. They have to purchase it from others at a very high price. It increases their production cost but compared to that they get very low profit. As reported by the sample artisans, for procurement of raw material they have to employ additional labourers which again raise their cost of production.

Lack of finance: Lack of finance is the most important problem faced by the sample artisans. Due to unorganised nature bank and another financial institutions are reluctant to provide loan facilities to the

artisans. Since profit of the artisans is very low they cannot afford money from their own to purchase modern technology for their production process. Due to lack of adequate finance the sample artisans are unable to use modern technology to produce their products and they have to rely on old outdated technology.

Lack of proper training: In Assam cane and bamboo industry falls under village industry and most of the people engaged in this industry are illiterate or unskilled. They produce their products with traditional knowledge acquired from their forefathers. Due to lack of government support and proper institutional training they cannot adopt modern improved technology in their production. As a result products produced by the artisans fail to compete with cheap machine made products of low quality.

CONCLUSION:

Cane and bamboo craft can play an important role in the rural economy of Assam. But till date they are unable to reap the benefit from national and international market. In this era of globalization the traditional crafts of the artisans need to be beautiful and cost effective and maintain quality to face global competition. But the traditional skills of the artisans have been the main source of their livelihood since it is their only asset of earning their bread (Jena 2008). In this paper it is found that age, educational qualification, experience and amount of hired labour used are the determinants of artisan's income in the study area. As a more educated and skilled artisans can earn more income, government should provide skill based support in the form of training to these artisans. Again, it is found that if an artisan uses hired labour his income will be higher. But to use hired labour an artisan must be economically strong enough. Generally, it is seen that cane and bamboo craft artisans in rural Assam undertake their crafts with the help of family members. Government should provide financial support to the artisans in the form of loan or assistance so that they can use more skilled hired labours. Proper government support can enlarge the choice of cane and bamboo craft artisans which will help in expanding their capabilities.

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