POLICIES FOR THE DEVELOPMENT OF JUTE-BASED HOUSEHOLD INDUSTRY IN KOCH BIHAR DISTRICT

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ABSTRACT: Jute-based industries provide livelihood for the rural poor, particularly home-based workers in the unorganized sector. Such industries generate highly marketable products ranging from various utilitarian articles to various decorative articles. A large number of jute-based industrial units are found in Koch Bihar district. The spread-out of the units is relatively larger in the rural areas because of higher demands and mainly because of the advantage of securing supplementary employment.As scientific and technical knowledge is lacking due to illiteracy and poverty, the techniques of production remain inferior and the products lack standardization. The demands for the products and the services of the artisans are mainly local, and the income of the majority of the artisans is the wage they earn. They are exploited by usurious middlemen, contractors and master artisans; they do not have the benefit of an organized market and depend on private marketing system. All these factors have severely handicapped the development of the sector in the study area.The studyexamines the influence of identified factors on the development in terms of increase of production of the sector and suggested policies for its development. A total of 65 industrial units of Jute-based industries have been surveyed which covers 17 villages of Koch Bihar district in the state of West Bengal, India. Multiple Linear Regression model has been used in the present analysis. On the basis of analysis some policy measures are suggested for the development of the sector.

Key Words: Jute-based Industries, Multiple Regression, Policy, Prospects.

INTRODUCTION:

Household industrial sector plays an important role in the economic development of both developed and developing countries. It occupies a definite and important place in the upliftment of the economy, especially the rural economy(Census of India, 1961). In developing countries like India household industries are especially important in the context of employment opportunities, equitable distribution of national income, balanced regional

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growth and development of rural and semi urban areas (Kasemi, 2013).They provide immediate employment, offer a method of ensuring a more equitable distribution of the national income and facilitate effective mobilization of resources of capital and skill which might otherwise remain unutilized. The capital investments of these industries are small and the equipments used are simple. These industries generally use locally available resources, raw materials and indigenous skills. The output produced in each industrial unit is generally sold in local market.

Jute-based industries provide livelihood for the rural poor, particularly home-based workers in the unorganized sector. Such industries generate highly marketable products ranging from various utilitarian articles to various decorative articles. A large number of jute-based industrial units are found in Koch Bihar district. The spread-out of the units is relatively larger in the rural areas because of higher demands and mainly because of the advantage of securing supplementary employment. The industry is managed by a single artisan, sometimes with the help of one worker. The artisans use very simple, outdated tools. The equipment is available locally and no technical knowledge or skill is needed to operate it. The skill of the artisan is hereditary. As scientific and technical knowledge is lacking due to illiteracy and poverty, the techniques of production remain inferior and the products lack standardization. (Kasemi, 2011).The demands for the products and the services of the artisans are mainly local, and the income of the majority of the artisans is the wage they earn. They are exploited by usurious middlemen, contractors and master artisans; they do not have the benefit of an organized market and depend on private marketing system. All these factors have severely handicapped the development of the sector in the study area.

Traditional in nature, the industrial activities are carried on household basis and are characterized by low technology and low levels of production (Lakshman, 1966).). However, these household industries of the study area possess high prospects. Their prospects can be analysed on the basis of the availability of raw material, labour force, good market of the products and entrepreneurial skill of the workers etc.(Sao and Chhetri,2008).

OBJECTIVES

The main objectives of the present study are-

- To analyze the characteristic features of the jute-based household industries of the study area.

- To find out the problems of development of these industries.

- Suggest recommendations to boost the economy of such industries of the study area.

STUDY AREA

The district Koch Bihar is extended between $25^057'47"$ to $26^036'2"$ North latitude and between $89^054'35"$ to $88^047'44"$ East longitude. The area of the district is 3387 km^2, which contributes 3.82 per cent of the land mass of the State of West Bengal. Koch Bihar is a district under the Jalpaiguri Division of the state of West Bengal. It is located in the north-eastern part of the state and bounded by the district of Jalpaiguri in the north, state of Assam in the east and the international border in the form of Indo-Bangladesh boundary in the south as well as in the west. As per the Census 2011, Koch Bihar had population of 2,819,086 of which male and female were 1,451,542 and 1,367,544 respectively.

DATA BASE AND METHODOLOGY

The study is based on data collected from both primary and secondary sources. Secondary sources include Census reports, reports of the District Industrial Centre and District Statistical Handbook. Primary data has been collected from sample artisans and household industrial units through a schedule constructed for such purpose. A total of 65industrial units of jute-based industries have been surveyed which covers 17 villages of Koch Bihar district in the state of West Bengal, India. Dataset has been prepared from these sample units.Multiple regression models have been developed to estimate the relevant structural equations and to interpret the co-efficient associated with different explanatory variables in the broad framework of productivity increase in the jute-based household industries. They also indicate the impact of policy variables on principal objectives and intermediate variables.

CHARACTERISTIC FEATURES OF THE RATTAN-BASED INDUSTRIES

From the survey some characteristic features of this industries have been identified. The analysis of the survey reveals some characteristic features of the rattan-based household industrial sector. The unit of production in this sector is family. which is generally small, the average being 3 with a low coefficient of variation. Members of the family work in a systematic matter, promoting division of labour related to the production procedure so that

both quantity and quality are ensured to be the best. Out of the total full-time workers male accounts 55.49 per cent and remaining 44.51 per cent are females. An almost similar picture is observed in case of part-time workers where 57.21 per workers are males and 42.79 per cent are females. Average standard mandays worked out to be 294 and C.V is moderate. Majority of the work force is of skilled category and males are found to be more skilled than the females. Categorization of skill has been done based on the experience and participation in production process. No formal training is imparted to the beginners. The skill is passed from older to younger generation informally. Out of the total workers an overwhelming 79.18 per cent are skilled workers. The sector is characterized by long hours of operation. However, this situation should not be taken as unusual feature of the sector.

PROBLEMS OF DEVELOPMENT

It has been found that jute-based household industries of the study area suffers from innumerable problems. Firstly, the sector is facing raw material problems. Irregular supply of raw material is one of the major constraints for the development of rattan-based household industries. Middlemen, who supply raw materials, usually tend to exploit the artisan in a number of ways. Secondly, one of the major problems of this sector is shortage of finance and lack of credit facilities. As a result of the shortage of the finance and the lack of ample institutional credit facilities the artisan workers are forced to depend on the middlemen. Thus, not only they face the exploitation by the middlemen or money-lenders but the productivity has also been considerably affected. Thirdly, the crude and obsolete tools of the artisan chiefly operated by hand and the technique of operation far below efficiency standards have considerably affected the quality of output of the rattan-based industries. Fourthly, to get immediate return from the investment the artisan workers sell their articles with a very low profit. It is the traders and middlemen who squeeze the real profit out of it. Fifthly, most artisan enterprises lack the requisite managerial and technical expertise. Most units suffer from poor planning and execution programmes. Finally, due to the absence of any co-operative marketing organisations or government agency in sufficiently large numbers in most of the unit, selling of the finished products through middlemen has been a dominant feature. (Kasemi, 2014).

MODELLING OF VARIABLES FOR INCREASE IN PRODUCTIVITY AND INCOME GENERATION

The models which represent the productivity increase and mechanism of income generation have been developed assuming the following notational form:

MODEL SPECIFICATIONS AND ESTIMATION METHODS

Multiple Linear Regression model of production of jute-based industries is shown in the following equation:

$$Y = a \ X_1 \ X_2 \ X_3 \ X_4 \ X_5 \ X_6 \ X_7 \ X_8 \ X_9 \ X_{10} \dots\dots\dots\dots\dots(1)$$

Where,

Y=   Production of bamboo-based industries (Rs.)

X_1 =   Size of the unit in terms of employment

X_2 =   Duration of daily operation of workers per unit in hours

X_3 =   Percentage of part-time workers to total workers per unit

X_4 =   Maximum distance covered for purchase of raw materials (Km)

X_5 =   Value of working capital per unit (Rs.)

X_6 =   Percentage of goods sold to customer

X_7 =   Percentage of finished products sold to middlemen

X_8 =   Experienceof the workers (in code taking a 3 point scale)

X_9 =   Educational level of the workers (in code taking a 5 point scale)

X_{10} =   Maximum distance covered for sale of finished products (km)

The basic form of Multiple Linear Regression equation may be expressed as follows:

$$Y = a + X_1 + X_2 + X_3 + X_4 + X_5 + X_6 + X_7 + X_8 + X_9 + X_{10} \qquad \dots\dots\dots\dots (2)$$

Where, in the equation *a* is the constant, variables $X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8 X_9,$ and X_{10} are slope coefficients of respective variables in the equation 2.
The method of least square has been used to estimate the equations.

EMPIRICAL RESULTS AND DISCUSSIONS

Regression coefficients of nine independent variables are obtained using statistical software SPSS 21. The mathematical regression model is obtained as:

$$Y = 31195.756^{**} + 1012.302^{**}X_1 + 511.986^{*}X_2 - 221.415^{*}X_3 - 101.021X_4 + 29.104^{**}X_5$$
$$(1912.346) \ (286.045)(31.437)(75.180) \ (14.110)(4.986)$$
$$+ \ 12.154X_6 - 8.101^{*}X_7 + 13.201^{**}X_8 + 54.301^{*} \ X_9 + 88.468^{*} \ X_{10}$$
$$(0.198) \quad (0.049) \quad (0.0145) \qquad (7.199) \ (32.101) \ \dots\dots\dots\dots\dots\dots (3)$$

$$R^2 = 0.614^{**}$$

Figures in the parenthesis are corresponding standard errors and ** and * indicate that the parameters are statistically significant at 1 per cent and 5 per cent level of significance respectively for n-p[1] degree of freedom. R^2 represents the square of multiple correlation-coefficient (coefficient of determination).

From the model the coefficient of determination (R^2) value is found to be 0.614. It reveals that 61.4 per cent of the variability of the independent variable is accounted for by the model.

The model reveals that productivity is influenced positively by size of the units, hours of operation, working capital, products sold to customer, experience, educational level of the workers and maximum distance covered for sale of finished products. Productivity is adversely influenced other variables like percentage of part-time workers, distance covered for purchase of raw materials and products sold to middlemen. The increasing influence of the unit size may be explained by the fact that Jute-based household industries depend on labour and that is why the elasticity of production with respect to size of the units is very high. It may be said that these industries are labour intensive and an increase in working hours leads to increase of production. Productivity is favoured by increase in working capital because higher working capital is spent either for purchase of better quality raw materials resulting into more profitable products or for more production thereby increasing in value added through sales maximisation approach. Percentage of goods sold to customer impacts production positively because retail customers always pay higher prices than what middlemen pay for the same goods. The increase in experience and education of entrepreneurs leads to increase in productivity of the units because the fact that the educated and experienced entrepreneurs can use the human as well as the capital resources more efficiently through division of labour, provision of better working conditions etc. The educated entrepreneur can handle problems more professionally and competently (Kasemi, Zenith).

The negative impact of the part-time workers may be because of the fact that they are usually unskilled and help only in the minor production process like processing of raw materials. Percentage of goods sold to influences production negatively because middlemen pay lower price for the products and exploit the workers.

The above analysis reveals that all the variables have significant influence on productivity of Jute-based industries in the study area. The favourable influence of the factors of productivityindicates that the sector has prospects for development if some policy measures can be taken and properly implemented.

POLICY RECOMMENDATIONS

The study reveals that jute-based industrial sector of the study area suffered has from

numerous problems. The following policy measures are recommended for the development of

the industry and make it economically viable. Firstly, industrial finance has been one of the

most important problems of the jute-based household industries; therefore, require credit

facilities and financial support for the purchase of raw materials, payments of wages and for

meeting their business obligations. The state governments, nationalized commercial banks

and other financial institution should come forward to finance the entrepreneurs providing

credit facilities and financial support. Secondly, a good market for the products of household industries is important to promote the well being of the artisan workers or small entrepreneurs. Marketing support can be given to workers group through institutional arrangements or departmental support, so that the workers may get a better return. Thirdly, managerial training should also be introduced for the management of the individual household industrial units and cooperatives.This willwiden the artisan workers outlook, make them realize the necessity of basic plans on the factual data and thus promote the understanding of the principles and advantages of industrial management. Fourthly, cooperative societies should be established which should take up the supply of raw material, purchase of finished goods from artisans, marketing and provision of credits. Finally, a comprehensive study is needed for the overall policy formulation covering a wide range of research activities including data collection on the production and marketing aspects.

Conclusion

It has been observed that the jute-based household industries is suffering from problems like irregular supply of raw materials, adequate working capital, lack of marketing facility, crude and obsolete tools, low returns from investment, lack of managerial and technical expertise, lack of diversification of products etc. All these problems have severely handicapped the development of the sector. The artisans are often exploited by the middlemen who always squeeze the profit. The need of capital for increased productivity of the sector is clearly recognized from regression analysis. There is immediate need to set up co-operative societies which may take up the issue of supply of raw materials, purchase of finished goods from artisans and provisions of credits. If policies are properly planned and implemented, these will ensure the growth and development of the sector. Finally, a comprehensive study is needed for the overall policy formulation covering a wide range of research activities including data collection on the production and marketing aspects.

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