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PROBLEMS OF POTTERY INDUSTRY AND POLICIES FOR DEVELOPMENT: CASE STUDY OF KOCH BIHAR DISTRICT IN WEST BENGAL, INDIA

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Abstract: *In the present day, the pottery industry in India has been put forward as a major cottage industry in both small and big pottery concerns. In a predominantly rural country with a very low income and simple needs, pottery plays an important role. Besides providing employment to artisans, the sector offer job opportunities to non-artisans during slack seasons of agriculture and to other tertiary sector employees. An overwhelming majority of the pottery industrial units is found in Koch Bihar district, in the state of West Bengal. The artisan himself is the proprietor and works on his own initiative and with his own capital. As scientific and technical knowledge is lacking due to illiteracy and poverty, the techniques of production remain inferior and the products lack standardization. The objective of the present paper is to study the characteristic features of the pottery industry in the study area, problems of development of the sector and suggest suitable policy measures for its development. The present study is based on sixty eight sample units collected through primary survey. Cobb-Douglass production function method is used to study the nature of production function of pottery industry.*

Key Words: *Pottery Industry, Problems, Cobb-Douglas Production Function, Problems, Policy*

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INTRODUCTION

Pottery is an age old handicraft in India. The roots of the Indian pottery industry can be traced back to the earliest times of civilization. The beginning of pottery making trails back to the Neolithic era. During the time of the Indus Valley Civilization, this effective art form improved with technology. In the present day, the pottery industry in India has been put forward as a major cottage industry in both small and big pottery concerns. In a predominantly rural country with a very low income and simple needs, pottery plays an important role (Meena et. al., 2005). Besides providing employment to artisans, the sector offer job opportunities to non-artisans during slack seasons of agriculture and to other tertiary sector employees. An overwhelming majority of the pottery industrial units is found in Koch Bihar district, in the state of West Bengal. These are mostly concentrated in rural areas. Traditional in nature, the industrial activities are carried on household basis and are characterized by low technology and low levels of production. The artisan himself is the proprietor and works on his own initiative and with his own capital. As scientific and technical knowledge is lacking due to illiteracy and poverty, the techniques of production remain inferior and the products lack standardization (Kasemi, 2014 PG). The market of the products is mainly local and partly extended to urban areas. Besides, middlemen play a powerful role in marketing these indigenous products. They usually place order with the artisan and collect materials at less than the market price. The competition from the substitutes like plastic items is a major problem for its development (Lakhsman, 1966). Under such a situation the decay of this particular sector of employment poses a serious problem and obviously the rational solution seems to develop and make viable the household industries (Reddy, 1998).

OBJECTIVES

The main objectives of the present study are-

- To study analyze the characteristic features of pottery industry in the study area.
- To examine the problems of pottery industry related to production, marketing, labour etc.
- To suggest suitable policy measures for the development of the sector in the study area.

STUDY AREA

The district Koch Bihar is extended between $25^0$57'47" to $26^0$36'2" North latitude and between $89^0$54'35" to $88^0$47'44" 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 present study is based on a primary survey, designed to collect data on the general and economic performance of the pottery industry. The survey was carried out during the period January to December, 2013 in urban and semi-urban areas of the Koch Bihar district of India using simple random sampling without replacement. Sixty eight sample units have been drawn from 21 villages of Koch Bihar district with simple random sampling method without replacement. Cobb-Douglass production function method is used to study the nature of production function of pottery industry.

CHARACTERISTIC FEATURES OF POTTERY INDUSTRY

Analysis the data obtained from the field survey reveals the following characteristic features of the economy of this unorganized informal household industrial sector.

- The unit of production of pottery industry is family. Size of the unit is very low average being 2.8 with very low Coefficient of variation (28 per cent).
- Employment structure in the industry shows the dominance of male workers. About 65 per cent workers are male female accounts rest 35 per cent.
- Out of the total workers 69 per cent are skilled 17 per cent are and rest 14 per cent are unskilled workers.
- 60 per cent of the units operate without part-time workers and average work contribution of the part-time workers is only 12 per cent.
- Average age of the workers is 40 years. Majority of the workers belong to the age group of 20-50 years. All the part-time workers fall below the age of 20 years.

- Majority of the workers are working in this sector for 10-20 years. Most of the workers are thus found experienced.
- Average distance covered for purchase of raw materials is 22 km. Whereas the average distance covered for sale of products is 16 km.
- Personal savings is the main source of working capital for majority of the units (89 per cent). Investment in fixed capital very low.
- Average value added is very low being Rs. 16.50.
- Illiteracy is widely prevalent among the potters. Only 47 per cent potters are found to be illiterate.

PROBLEMS OF DEVELOPMENT

Pottery industry of the study area is suffering from numerous problems. The problems are not only numerous but also diverse in character. Though some of the problems are very crucial and unless they are solved with appropriate measures, the industry is bound to limp. Problems faced by the pottery industry of the study area are as follows:

PROBLEMS RELATED WITH RAW MATERIAL

Irregular supply of raw material is one of the major constraints for the development of household based industries (Malegawekar, 1973). Irregular supply of raw material is one of the major constraints for the development of pottery industry. At times the irregular of the required quality and quantity of the raw materials affect the quality and size of the output of industrial units. Because of their smallness and weak financial base and poor bargaining power the artisans utilize the services of middlemen to get raw materials on credit. Such an arrangement results in higher costs due to the high margins of the middlemen. Moreover, irregular supply of certain raw materials adversely affects their production schedules and delays in delivery.

PAUCITY OF WORKING CAPITAL

Paucity of working capital is another main problem of pottery sector. Because of the lack of adequate working capital, potters are not in a position to buy the raw material of required quantity. The low investment causes low production and in turn low production. A good number of units are operating below their capacity due to shortage of working capital. Due to the paucity of funds, at times the potters opt for less remunerative jobs or resort to even daily wage earning.

LOW INVESTMENT IN FIXED CAPITAL

Because of low capabilities of the potters for mobilization of finance, the fund available to them for investment in fixed assets is low. Many artisans are aware of improved technique of production, but do not apply them, as it will require fresh investment in fixed capital, which they cannot afford.

OBSOLETE TECHNOLOGY

The method of production followed by the artisans is old and inefficient. Obsolete technology has a very important bearing on the productivity and cost aspects. The crude and obsolete tools chiefly operated by hand and the technique of production far below the standards have considerably affected the productivity and the quality of output of household industries.

LACK OF DIVERSIFICATION OF PRODUCTS

Lack of diversification of the product also accounts for slow growth of the pottery sector. During slack season the artisans are forced to remain idle.

COMPETITION FROM THE ORGANIZED SECTOR

At this age of globalisation, cheap machine made goods have captured the market of goods produced by household industrial sectors. Cheap plastic articles from the highly mechanised sector introduced unhealthy competition to the detriment of decentralised production of articles by Pottery sector. In such situations, the aspect like cheapness of the synthetic plastic goods of the organised sector emerged as the strongest competitor of the un-organised household industrial sector (Subrahmanya, 1991).

PROBLEMS ASSOCIATED WITH MARKETING MECHANISM

A good market for the products of pottery industry is important to promote the well-being of the artisans or small entrepreneurs. But marketing in this field has certain limitations. Firstly, 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. Secondly, the demand for the various products of these industries is largely seasonal and limited to the locality as majority of their products are substandard and do not conform to the required specifications. Thirdly, the competition from the mills as well as inter unit competition is keen. Thus, in the absence of

any rational marketing organisation, the workers of various household industries are forced to sell the products to the local traders or middlemen who manage to get away with the major part of the profit.

PROBLEMS OF MANAGEMENT

In an overwhelming majority of the units surveyed, the artisan is both an entrepreneur and labourer. They raise their own finance, purchase the raw materials and attend to production, marketing and controlling labourers. The chief management problems, therefore, are those of planning, coordinating and controlling the various activities, which increase the competitive efficiency of the small producer.

LACK OF RESEARCH AND DEVELOPMENT EFFORTS

Adequate research and development efforts are needed to increase the output or find out the higher value alternative items for many of the products. Due to lack of this, pottery industry of the study area could not develop in spite of their potentiality.

COBB-DOUGLASS PRODUCTION FUNCTION

To analyse the nature of production function of pottery industry Cobb-Douglas production function method is chosen. A two variable Cobb-Douglas type production function analysis shows the relative contributions of capital and labour factors in the production system (Jamil and Chattopadhyaya, 1979).

The form of production function is as follows:

$$Q = A L^{\bullet} K^{\bullet}$$

Where, Q = Output

L = Labour input

K = Capital input

A, • and • are parameters

The parameters α and β measures the elasticity of output with respect to labour and capital respectively and are known as labour and capital coefficient, while A is the efficiency parameter of the pottery industry. The result besides representing the contributions of different factors in the production indicates the scale of return in pottery industry as well. By definition of the Cobb-Douglass system, α + β = 1 means a constant return to scale, α + β

> 1 indicates increasing return to scale, whereas, $\alpha + \beta < 1$ indicates the decreasing return to scale.

The function has provided a good fit for the data which is evident from the high R^2 value. (R^2 = 0.782 and F = 0.874). The R squared reveals that 78.20 per cent of the variation of output has been explained by the two factors of production i.e., labour and capital. The computed value of α and β is 0.461** (S.E. 039) and 0.365** (S.E. 061) respectively. Smaller coefficient value of labour factor in pottery industry is a cause of concern as this sector is traditionally use high skilled labour. However, greater contribution of capital factor could be due to the increase of price of essential raw materials requiring higher investment (Sao, 2011). The sector exhibits decreasing returns to scale as $\alpha + \beta = 0.917$.

POLICIES FOR DEVELOPMENT

The following policies are recommended for the development and making the pottery industry economically viable.

DISTRIBUTION OF RAW MATERIALS

The wide dispersal of raw materials and their weak financial position necessitates that their small requirements of raw materials need to be made available at the needed time and close to their work place. It is suggested to set up raw material depots at suitable places to facilitate uninterrupted supply of standard raw material to the artisans in appropriate quantity and quality at reasonable rates. In such circumstance the state governments should supply raw material at cheaper rates which will encourage artisans to continue their production.

PRODUCT DIVERSIFICATION

The artisan workers usually produce traditional utilitarian articles. Apart from these, non-traditional articles should be produced after examining the consumers' preference and marketing orientation. The sector offers a great scope for the production of variety of artistic items if skill is slightly upgraded.

MODERNISATION OF PRODUCTION TECHNOLOGY

To increase productivity and efficiency of the production system modernization of production technology is one of the basic prerequisite. Every endeavor should be made to induce the workers to shift over to better tools and equipments which will help in eliminating long strenuous hours of work and low productivity.

MARKETING SUPPORT

A good market for the products of household industries is important to promote the well being of the artisan workers or small entrepreneurs (Rao, 1989). Marketing support can be given to workers group through institutional arrangements or departmental support, so that the workers may get a better return. To facilitate this, an organization be set up which should be a no-profit no-loss body and should operate through hierarchical distribution collection centres.

SKILL FORMATION AND TRAINING

For meeting the demand of better skill, which is a prerequisite for modernisation of production technology it is recommended to improve skill of the artisan workers through training and education of the workers in the related field. Managerial training should also be introduced for the management of the individual household units and cooperatives. This will widen the artisan workers outlook, make them realise the necessity of basic plans on the factual data and thus promote the understanding of the principles and advantages of industrial management

FINANCE MOBILISATION

Inadequate finance has been one of the most important problems of the household industries and therefore, requires credit facilities and financial support for the purchase of raw materials, payments of wages and for meeting their business obligations. Along with the state governments, nationalized commercial banks and other financial organizations should come forward to finance the entrepreneurs providing short, medium and long term loans. Further it is suggested that finance should also be made available through post office. Proper step should be taken to popularize loan scheme

EXTENSION OF EMPLOYMENT OPPORTUNITIES DURING SLACK SEASONS

It has been observed that during the slack season, the artisans are without continuous employment. It is suggested that state government emporium and cooperative marketing agencies should procure decorative items for their stocks which can be produced during the slack season so as to provide regular employment to the artisans.

FORMATION OF COOPERATIVE SOCIETIES

There is an immediate need for the organization of cooperative societies on the sound footing so that they give a lead in the manufacture of quality and standard products (Bhattacharya, 1980). Cooperative societies should be established to give a lead in the manufacture of the quality and standard products. Such societies can make the artisans of the study area cooperative minded. These cooperative societies should take up the supply of raw material, purchase of finished goods from artisans, marketing and provision of credits. For this purpose, the cooperative societies should be given adequate financial assistance by the state government. Once the cooperative societies are formed, further developmental measure such as usual facilities of loan, grants, subsidies, marketing, mechanization and equitable distribution of products can be effectively channeled.

CONCLUSION

Pottery industry of Koch Bihar district are characterized by small size of the units, family-based operation, predominance of skilled workers, use of primitive tools, and wide prevalence of illiteracy among the workers. The present study shows that the pottery industry in the study area is suffering from irregular supply of raw materials, lack of working capital, obsolete technology, lack of diversification of products, Competition from the organized sector, good marketing facilities, management problems and Lack of Research and Development Efforts etc. 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 Cobb-Douglas production analysis. The Government and non-government initiatives can solve the problem and develop the industries at its best level. It goes without saying that realization of policies will need very efficient and committed functionaries. Since the artisans are in the hands of stereo type machinery it may be necessary that the entire programme for the development may be marshaled through various governmental institutions.

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