ABSTRACT

Introduction

The micro, small and medium enterprise (MSME) sector in India is contributing significantly to the gross domestic product (GDP), manufacturing output, employment and export of the country. It is also playing a crucial role in nurturing entrepreneurial talent, utilisation of local recourses and balanced development especially at the grassroots and the regional level. As against the national scenario, the contribution of the sector in the North Eastern Region lags far behind. A stock of the employment generated under registered MSMEs shows that the registered units had generated employment for 93.09 lakh persons at all India level (Fourth Census of the MSMEs 2006-07). The corresponding figure for the State of Assam for the year 2006-07 stood at 12 lakh persons. Further, the employment estimates of the Ministry of MSME for the year 2010-11 comprising both registered and unregistered MSMEs reveal that the sector has generated employment for 732.17 lakh persons in the country as a whole. The employment position for the State of Assam to that of the National total accounts for 0.4 per cent. A further look at the working enterprises by rural and urban location indicates that a majority of them (65.69 per cent) are rural. A count on the numerical strength of working enterprises shows that there were 15.5 lakhs working enterprises at the all India level and 0.6 lakhs in the State of Assam (Fourth Census of the MSMEs 2006-07). Out of the total, only 3.1 per cent are registered in case of Assam as against 5.94 per cent at the all India level. The State of Assam thus is a case of relative laggardness. It is for this reason, the Government of India has classified the North Eastern Region of the country as category 'A' industrially backward region. According to the 4th MSME Census, the working enterprises in the MSME sector in the North Eastern Region of India shares a mere 2.23 per cent of the total in India. This industrial backwardness of the Region has been for long revealed by different studies and is an area of concern for the policy makers.

The concept of growth of micro enterprise or small firm is a multidimensional phenomenon and that different forms of growth may have different determinants and effects has been well argued by Davidsson & Wiklund, 2000. More often, the growth of 'micro enterprise' is used to denote an increase in amount or in size of parameters of a micro enterprise such as sales, employment, assets, export, physical output, market share and profits (Robson & Bennett, 2000; Ardishvili *et al*., 1998; Weinzimmer, Nystrom & Freeman, 1998; Wiklund, 1998; Delmar, 1997; Gray, 1990; Flamholtz, 1986; Bolton, 1971) or improvement in quality as a result of a process of development (Wiklund, 1998; Raffa, Zollo & Caponi, 1996; Stanworth & Curran, 1973).

Measure of growth alone not being the adequate indicator of performance efficiency among the enterprises involved in production of single or multiple products, there is a need for deploying other measures which can reflect performance level of rural micro enterprises. To have such measures, analysis of enterprise value chain is a useful technique to draw insights. Value chain analysis as an analytical tool can illustrate the determinants of inter and intra-enterprise income distribution and consequently help in identification of problems and prospects of enterprises (Kaplinsky, 2000). It has been also viewed that value chain analysis can be one of the tools for understanding the dynamics, opportunities and constraints of promising product markets of micro enterprises (Fries & Akin, 2004). The search on available literature shows that studies depicting/ analysing the pattern of growth in micro enterprises, as well as studies using value chain analysis techniques are very limited in India and are not available for the State of Assam.

In the light of the literature gap and the laggard performance of micro enterprises in Assam, the present study attempts at ascertaining the status of growth of rural micro enterprises in Assam and also the factors influencing their growth. The study also delves into the identification/ assessment of gaps and opportunities of the rural micro enterprises in the State by exploring the enterprise level value chain of product range. Assessment of

the relationship between efficiency of production performance of a micro enterprise and its probable influence on growth of the micro enterprise are the other areas of investigation of the study.

Materials and Methods

Objectives of the Study:

The broad objectives set for the proposed study are as follows:

1. To examine the overall status of rural micro enterprises in Assam
2. To identify the opportunities and gaps of rural micro enterprises using value chain analysis
3. To examine the status of growth of rural micro enterprises
4. To identify the factors influencing the growth of rural micro enterprises
5. To analyse the relationship between growth and production performance efficiency of rural micro enterprises

Hypothesis:

The study has been carried out with the hypothesis that:

i. The growth of rural micro enterprises is not influenced by the socio-economic and strategic factors. **Alternately**, socio-economic and strategic factors play a crucial role in aiding or limiting the growth of rural micro enterprises.

ii. Growth of rural micro enterprises is independent of efficiency of production performance (cost, manpower and time) of rural micro enterprises. **Alternately**, efficiency of production performance of rural micro enterprises plays an important role in the growth of rural micro enterprises.

Data Source & Methodology:

The status of growth and performance of rural micro enterprises bears both qualitative and quantitative elements and hence the study peruses both explanatory and empirical methods of investigation. Therefore, both primary and secondary sources of data have been gathered, analysed and interpreted in the study.

Secondary Data:

The secondary data has been collected through visits to relevant departments, websites and institutional libraries. The secondary sources of data for the present study are:

- MSME Census data
- Census of India
- Various types of reports like *Economic Survey*, *District Potential Survey* etc
- National Sample Survey data and *Statistical Handbook*
- Various relevant Reports, Articles, DIC Information etc

Primary Data:

Primary information have been collected at micro enterprise level drawing a total of 80 samples representing a three staged random sampling procedure.

In the **first** stage, four districts out of 27 districts in Assam have been selected based on household-enterprise ratio (HER) of registered MSMEs divided into four groups – (i) District with high household-enterprise ratio, (ii) District with moderately high household-enterprise ratio, (iii) District with moderately low household-enterprise ratio, and (iv) District with low household-enterprise ratio. One district from each category is selected to constitute the sample districts as outlined below:

HER Categories	Sample District
High	Kamrup
Moderately high	Sibsagar
Moderately low	Cachar
Low	Barpeta

In the **second** stage, the four most dominating sectors from among the MSMEs in the State in terms of number of registered units are identified for drawing 20 sample micro enterprises by categories from each district. Thus, four sectors in terms of numerical presence have been identified which are as follows:

Sectors	Sample Micro enterprises
Engineering and Non-conventional Energy	Carpentry
Textile Industry	Weaving
Agro Based and Food Industry	Food Processing
Forest Based Industry	Cane and Bamboo Works

In the **third** stage, five sample units from each sector have been drawn randomly for primary data collection. Thus, a total of 80 sample units have been identified for the study drawn from four sample districts.

A structured interview schedule has been prepared at the micro enterprise level to elicit the primary data.

A database has been developed using IT tools in Microsoft MS Access for the purpose of data entry, storage and retrieval in the required format. The data is processed at two stages. In the first stage, a descriptive analysis and graphical representation of the sample micro enterprises has been carried out. In the second stage, index formation has been worked out using stoical approach and analytical techniques like correlation, regression analysis etc are carried out using software like Microsoft Excel, SPSS, STATA etc for drawing inferences on the nature and extent of relationship between predictors and dependents. Further, production

performance efficiency has been explored by drawing and analysing sectoral value chains at enterprise level.

Analysis:

Based on the objectives, the following analyses have been carried out for the study:

i. Using usual tools, averages, ratios, percentages have been worked out as required for the study.

ii. In order to measure the growth of rural micro enterprises, an Enterprise Growth Index (I_{EG}) is constructed to represent growth of individual rural micro enterprises by using the growth scores of Investment, Employment and Sale Proceeds.

$$I_{EG} = \left\{\left(\frac{IG_{actual} - IG_{min}}{IG_{max} - IG_{min}}\right) + \left(\frac{EG_{actual} - EG_{min}}{EG_{max} - EG_{min}}\right) + \left(\frac{SG_{actual} - SG_{min}}{SG_{max} - SG_{min}}\right)\right\}/3$$

where,

IG= Growth score of Investment

EG= Growth score of Employment

SG= Growth score of Sale Proceeds

IG_{actual}, EG_{actual} *and* SG_{actual} $= Actual\ growth\ score\ of concerned\ micro\ entreprise\ in\ terms\ of\ Investment, Employment\ and\ Sales\ Proceeds$

IG_{min}, EG_{min} *and* SG_{min} $= Minimum\ growth\ score\ of entire\ sample\ micro\ entreprises\ in\ terms\ of\ Investment, Employment\ and\ Sales\ Proceeds$

IG_{max}, EG_{max} *and* SG_{max} $= Maximum\ growth\ score\ of entire\ sample\ micro\ entreprises\ in\ terms\ of\ Investment, Employment\ and\ Sales\ Proceeds,$

and the growth score of Investment, Employment and Sales Proceeds is deduced using annual value of the three parameters with the help of the following formula

$$Growth\ Score = \frac{\{(Anual\ Value\ of\ FY\ 2013{-}14) - (Anual\ Value\ of\ FY\ 2010{-}11)\}}{(Anual\ Value\ of\ FY\ 2010{-}11)}$$

iii. Strategic Orientation at enterprise level is represented by Product Diversification Index (PDI) which is measured by using the inverse of Hirchman-Herfindahl (HH)

index in the form 1 -$\sum Aij^2$ where Aij represents the contribution diversified product and new design to the aggregate income of the micro enterprise. Since HH index is a measure of concentration, its inverse is supposed to indicate the relative spread of product and design diversification activities in contributing to total income of the enterprise. The less the value of HH index the greater is the measure of diversification and vice versa.

iv. In order to understand the performance of rural micro enterprises, a Performance Efficiency Index (PEI) is constructed to bring out the performance efficiency at enterprise level. Performance Efficiency Index has been constructed based on the value chain analysis data of individual micro enterprises. PEI has been deduced with the help of the following formula:

$$\text{PEI} = (C_E + M_E + T_E)/3$$

where,

C_E= Cost Efficiency of Individual micro enterprise against Rs. 100 sales proceeds

M_E= Manpower Efficiency of Individual micro enterprise against Rs. 100 sales proceeds

T_E= Time Efficiency of Individual micro enterprise against Rs. 100 sales proceeds, and

$C_E(Cost\ efficiency) = \{(CM - CA)/CM\}$ where CA= Production cost per Rs.100 sales proceeds of the enterprise and CM= Maximum production cost per Rs.100 sales proceeds among the enterprises

$M_E(Manpower\ efficiency) = \{(MM - MA)/MM\}$ where MA= Manpower cost required per Rs.100 sales proceeds of the enterprise and MM= Maximum manpower cost required per Rs.100 sales proceeds among the enterprises

$T_E(Time\ efficiency) = \{(TM - TA)/TM\}$ where TA= Man hours required per Rs.100 sales proceeds of the enterprise and TM= Man hours required per Rs.100 sales proceeds among the enterprises

v. To understand the extent and nature of influence of socio-economic and strategic factors on the growth of rural micro enterprises, linear regression analysis is carried out using Enterprise Growth Index (I_{EG}) as dependent variable and socio-

economic variables and Product Diversification Index (PDI) as independent variable.

vi. To understand the extent of relation between growth of micro enterprises (I_{EG}) and performance efficiency (PEI) (influence of micro enterprise performance efficiency on micro enterprise growth), a regression analysis is carried out.

Results and Discussion

A comprehensive analysis of socio-economic profile of the micro enterprises across sample districts based on primary data has been carried out in terms of social category, gender, age, educational attainment, religion, employment, income, investment, market and marketing. The micro enterprises sector has generated a decent employment with an average employment of four persons per unit though the average monthly production and employment is not up to the desired level. Majority of the entrepreneurs (76.40 %) still do not have access to formal sources of finance including institutional sources and therefore, mostly depend upon own capital. Most of the micro entrepreneurs market their products in local and state markets while access to national market is quite limited (16.25%). Search for better income and better future prospects along with the problem of unemployment are the prime influencing factors instrumental in motivating the micro entrepreneurs in starting their own ventures.

The study brings to the fore the challenges and opportunities of rural micro enterprises in the State based on empirical evidence. The evidences in the study suggests that in the State, the relative under performance of the ural micro enterprise sector can be attributed mainly to a milieu of factors like (i) absence of adequate and timely supply of bank finance, (ii) limited capital access, (iii) lack of adequate knowledge, (iv) shortage of power, (v) low quality inputs, (vi) low returns on investment, (vii) non-availability of suitable technology, (viii) inadequate production capacity etc. The evidence also portrays immense scope in the areas of i. product diversification and design, ii. up-gradation of

existing value chains, iii. business development services and iv. linkage promotion in finance, marketing, technology infusion, and v. creation of congenial business environment through promotion of basic infrastructure.

The status of growth and performance of rural micro enterprises based on the field data drawn from sample units are presented and discussed in chapter four and five. The value of enterprise growth index, which denotes the growth of rural micro enterprises, reveals that more than two third of the sample micro enterprises fall in the low growth category while mere 3.75 per cent fall in high growth category. The findings from multiple linear regression analysis using enterprise growth index as dependent variable and socio-economic indicators as independent variables show that none of the socio economic indicators have any significant influence on the growth of rural micro enterprises. Another regression model keeping enterprise growth index as dependent variable and product diversification index (representing strategic orientation) as independent variable suggests that there is significant positive influence of product diversification on growth of rural micro enterprises. Thus, enterprise strategy for product diversification has significant positive influence on growth of rural micro enterprises. Product diversification with respect to the production of market oriented products aids in the growth and competitiveness of rural micro enterprises.

The values of production efficiency index which represent performance efficiency of micro enterprises shows that majority of the micro enterprises fall in the low performance efficiency category. Therefore, on performance count too, the micro enterprises of the State are lagging behind.

The regression analysis of enterprise growth index and production efficiency index reveals a significant positive relationship between the two. Thus, attainment of efficiency in terms of production cost, time and manpower can aid in enhancing growth of rural micro enterprises in the State.

Conclusion

The study holds both the alternative hypotheses. With regard to the first hypothesis, strategic factor in the form of product diversification is found to have played a crucial role in aiding the growth of rural micro enterprises though the role of socio economic factors are found to be insignificant. Similarly, in the case of the second hypothesis, it is found that the performance efficiency of rural micro enterprises plays an important role in the growth of rural micro enterprises.

The emphasis on strategic orientation can help the micro enterprises in achieving growth, competitiveness and adaptability in the dynamic market environment. Further, efforts towards enhancing production efficiency can help in achieving growth of the micro enterprise sector as revealed by the empirical evidences of the study. Thus, the strategic intervention may form an important component for addressing the laggard performance of the micro enterprise sector in the State of Assam.

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