ABSTRACT

INTRODUCTION

The handmade paper industry is one of the key khadi and village industrial activities converting waste into wealth. Raw materials for the handmade paper units are hosiery cuttings, cloth cuttings, waste paper, agricultural wastes and fibrous plant wastes like banana stem, paddy straw, jute, bagasse, sun hemp, sisal and pineapple leaf fibres. Increasing consumption rate in paper and related products will deplete forest cover and these scarce resources require a very long period for regeneration. Alternately the handmade paper industry does not require trees and can use waste materials. This help to conserve the forest wealth, which is the essential ingredient for improving the ozone cover and in controlling the increasing levels of carbon-di-oxide.

Handmade paper is stronger than mill made paper due to the presence of less broken cellulose fibrous matter for producing interlocking among the fibres in handmade paper. The effluents of handmade paper industry are not toxic as the production process uses small quantities of alkali and bleaching materials. Production of mill made paper involves the use of large dosages of alkalies, chemicals, gums etc that make the effluents more toxic and affect the environment. Thus the handmade paper production process uses sale technologies and it is environment friendly.

The handmade paper industry also contributes to the economic wealth of the nation through significant value addition and employment generation. Total paper and board production in the country was 40 lakh tonnes during 2000-2001 and the volume of production in the handmade paper sector was 17000 tonnes of different varieties and grades contributing to 0.5% of the total paper and board production in the country, providing employment to 16500 persons in rural areas. The handmade paper industry accounted for exports worth Rs.63 crores in 2001-02, earning
valuable foreign exchange. The demand is estimated to be around 54.80 lakh tonnes in 2005-06.

The present exercise therefore addresses major issues and features that influence the economics of the handmade paper industry in Tamil Nadu. It mainly focuses on raw materials, production and sales, productivity of labour, marginal cost and working capital management; which are the crucial factors determining the economic scope of the handmade paper industry.

THE SPECIFIC OBJECTIVES OF THE WORK ARE TO

i) Identify the varieties of raw materials used by the sample units;
ii) Measure the trends in production and sales over a period of time;
iii) Estimate the employment generation potential of the study units and the labour productivity;
iv) Measure the capital output efficiency of these units;
v) Compute the marginal cost of production; and,
vi) Assess the management of working capital.

The study covers all the handmade paper units operating in Tamil Nadu.

The Tamil Nadu Khadi and Village Industries Board, Chennai, has established around 25 handmade paper units in Tamil Nadu since 1960. However, the number of units functioning in Tamil Nadu has fallen to five due to continuous losses and problems of sickness.

So the study sample consists of the following five units operating in Tamil Nadu. (1) Handmade Paper Unit, Pidagam, Villupuram District, (2) Handmade Paper Unit, Ponnavarayankottai, Pattukkottai, Tanjore District, (3) Handmade Paper Unit, Senbagapudur, Erode District, (4) Handmade Paper Unit, Gandhiji Ashram, Thiruchengodu, Namakkal District and, (5) Handmade Paper Unit, Veeraragavapuram, Poonthamalli, Chennai.

The sample covers all the handmade paper units operating in Tamil Nadu with the certification of KVIC, Mumbai, and Tamil Nadu KVIB, Chennai.
THE WORK HAS IDENTIFIED THE FOLLOWING FINDINGS AFTER DETAILED ANALYSIS.

1. Raw Material Consumption

The handmade paper units never use forest resources for paper making as they do not require huge volumes of raw material and their production capacity is less than one metric ton per day per unit. These units facilitate de-centralization of paper making and utilize locally available raw materials such as waste paper, hosiery cuttings, condemned jute, tailor cuttings etc, generating employment for the local people.

2. Production and Sales

Of the five handmade paper units, three units namely, those at Senbahapudhur, Ponnavarayankotti and at Veeraragavapuram, use lower level of technology in couching and sheet formation. They use hand operated dipping vat and foot operated auto vats. These three units have shown declining trends in production and in sales due to the low quality of the paper produced by these units. The handmade paper units at Pidagam and Thiruchengodu are using cylinder mould technology which has helped to improve the quantity of production and the quality of the paper.

Lower level of technologies in couching and sheet formation have shown declining trends in production in three units. Two units, namely, the units at Pidagam and Thiruchengodu using cylinder mould technologies and have shown increasing trends and their growth rates are quite reasonable and positive.

In respect of sales, use of improved technologies has produced better quality paper enabling the Thiruchengodu unit to post for better sales and this unit, which has better marketing linkages, has posted reasonable success in marketing. All the other units suffered in terms of growth rates in sales.
3. Employment, Earnings and Labour Productivity

In respect of the per capita earnings also the hypothesis has been proved as it ranged from Rs.0.079 lakh to 0.190 lakh per employee in the paper units under review. Low wage earning capacity and low labour productivity have been attributed to lower level of technologies and under utilization of plant and machinery.

4. Capital Output Ratio and Marginal Cost

In the study units the capital output ratio is not directly related to the level of technology adopted and it is also a function of the value added products and diversified products. For example the unit at Ponnavarayankottai has employed lower level of technology like dipping vats and auto vats. Yet it has recorded a better capital output ratio than the units which are equipped with cylinder mould technology, namely, units at Pidagam and Thiruchengodu. The unit at Ponnavarayankottai could record better values due to production of paper covers, envelops, shoe boxes, sweet boxes etc.

Trends in cost of production and value of output in the sample units indicate lack of control over costs. As a result even occasional increase in business operations failed to yield the benefit of cost reduction. In particular fixed costs, comprising largely of wages and salaries, kept increasing despite fall in production. Therefore, the handmade paper units under review have to enlarge their volume of production so that they can at least match their fixed cost components and variable cost components. The trends observed in all the five units have shown that the increase in the value of production could not match the fixed costs affecting the margins. Only one unit, namely, the unit at Thiruchengodu has managed its costs and expenses comfortably. While the other units have suffered.

Initiatives and dynamism on the part of management to handle the production and costs effectively can alone save these units. Orienting the unit in charges for such efficient cost management has to be undertaken by the Tamil Nadu Khadi and Village Industries Board, Chennai, for the survival of these handmade paper units.
5. Management of Working Capital

Assessment of management of working capital through operating cycle was undertaken in the present study to identify the pitfalls in the management practices.

Out of the five units under review, three units, namely those at Pidagam, Poonavarayankottai and Veeragavapuram were bogged down by long net raw material cycles and storage cycles affecting their business prospects.

The unit at Thiruchengodu which recorded shorter durations in storage and collection cycles has expanded its production base by introducing cylinder mould technology and has enhanced the quality of its output to satisfy the market requirements.

POLICY RECOMMENDATIONS

Use of Agricultural Wastes for Handmade Paper Industry

The handmade paper units under review have used only hosiery cuttings, tailor cuttings, condemned rags and waste paper. These are mainly industrial wastes produced by urban industrial units. The handmade paper industry is one of the village industries supported by the KVIC, Mumbai to provide employment to village people by utilizing locally available raw materials. Indian villages have plenty of paddy straw, stems of plants, banana fibres, sisal and pineapple leaf fibres which have considerable fibrous materials suitable for handmade paper production. None of the units under review even ventured to use a few of the fibrous agricultural wastes as raw material. The, use of agricultural wastes as raw material for handmade paper production will add value to the village economy and support the handmade paper units. So, the use of agro wastes by the study units to produce varieties and high value addition to the outputs is recommended.

Use of Natural / Vegetable Dyes for Colouring Handmade Paper

Handmade paper units use synthetic chemicals and dyes for colouring the paper products. Handmade paper products are demanded by environmentalists and special groups who have concern about ecology and health of ‘Mother Nature’. To make the handmade paper a full fledged eco friendly product, the units may think of
using vegetable dyes which are non-toxic and natural. Trials on the use of natural and vegetable coloured papers may be conducted to improve marketing and for better value addition.

Managerial Training and Orientation

Tamil Nadu Khadi Village Industry Board has its head office at Chennai and it has a Directorate for dealing with the administration of village industries, the staff working under the Directorate of Village Industries may have assorted qualifications and experiences in different fields of village industries. By way of utilizing the available staff, a person who has not been trained in handmade paper production but trained in village oil industry is put in charge of a handmade paper unit. This will affect the prospects of the unit. The present study also revealed the incompetent management of source the unit, in charges in dealing with quality and inventory control and working capital management. Hence, the unit in charges of the handmade paper units have to be trained in handmade paper products, quality control, marketing of handmade paper products and administration of the unit. Unless the right person occupies the right place in the handmade paper units, their future prospects are questionable.

Establishment of Export Wing

Handmade paper products enjoy high demand in foreign countries as they are eco friendly. The Tamil Nadu Khadi and Villages Industries Board, Chennai, should make efforts to tap the vast potential for exporting the paper products of the study units. Hence, it is recommended that the KVIB, Chennai, should establish an export wing for undertaking export of handmade paper products. The wing should establish market linkages abroad through participation in buyer and seller meets, to undertake market surveys and to supply goods to meet customer demands. This effort will generate high returns to the handmade paper units under review as unit sales value realisation will be higher in foreign countries.
Net working with other State Khadi and Village Industries Boards

The TNKVIB is the apex body at the Tamil Nadu level for production and sales of KV1 products in Tamil Nadu. The TNKVIB should establish networking with other state KVIBs.

This will facilitate expanding the scope for marketing the KVIB products particularly the handmade paper products. For example, the Kerala State Khadi Village Industries Board does not have any handmade paper manufacturing unit and the paper products of TNKVIB, can be marketed through the Kerala State KVIB, Trivandrum.

The above policy recommendations may help (he handmade paper units operating under the TNKVIB, Chennai, in their rejuvenation and future prospects,

Note: This thesis was prepared exclusively out of handmade paper only.