

A STUDY ON THE SURVIVAL OF MATCHSTICK INDUSTRY IN KERALA

Liza Maria Joseph,

Linu Eldo,

ABSTRACT

Matchstick making is an age old traditional industry of Kerala. During the phase of industrial transition of Kerala economy, it was one among many industries that provided livelihood for a reasonable number of uneducated rural poor. Also, since modernization was at its early period, it was the single available choice for consumption. Thus the industry was well off with adequate government assistance. However with the entry of most modern technologies, people are now depending more on machine made finished goods. The magnitude of the home market and the volume of trade in the products allied to the match industry are immense in southern India. Availability of raw materials, abundance of cheap labour and cheap transport facilities all make Kerala an attractive field of operation for the industry. Even though all these factors prevail, Kerala's per capita consumption of matches per head is on a decline. This is reflected in the consumption pattern and household preference regarding the same. It is in this context that an attempt is made to analyse the trends in matchstick industry in Kerala.

Keywords: Matchstick Industry, Kerala, Lighter, Producer, Consumer

1. INTRODUCTION

Industrialization play a vital role in the economic development of Kerala, as a southern state in India, with large amount of natural resources which could be used as raw materials. Growth of small scale enterprises particularly those within the traditional sector help the state to reduce the problem of unemployment, regional disparities and industrial backwardness. Moreover, micro, small and medium enterprises (MSME) contributes to the socio-economic development of the state. The traditional industries under MSME sector include handicrafts, handloom, khadi, industries related to coir, matchstick industry, bamboo industry, beedi making, candle making industry etc.

Matchstick industry has been playing a crucial role in the development and promotion of village economics of Kerala. The production of matchstick is highly manual; therefore labour is an important factor of production in this particular industry. Even though the availability of timber and transportation facility is the two major problems of the industry, Kerala is blessed with the availability of suitable wood for matchstick production. It is also abundant in places like Mysore and Andaman Islands. Thus Kerala has a favourable market and industrial environment for matchstick production. This study is trying to analyze the change in the role and survival of matchstick industry in the traditional sector of Kerala economy.

2. STATEMENT OF THE PROBLEM

Being a traditional venture, matchstick industry provides wider scope for manual labour and the sustainable growth of small manufacturing units in Kerala. As far as matchstick industry is concerned, it focuses severe challenges from other alternative modern industrial products. This competition will eventually affect the occupational structure and consumption pattern of the people in Kerala. So it is necessary to examine the changes so far understanding the current position and survival in the state. In this background, this study tries to uncover the performance of matchstick industry in Kerala over the past few years of mechanization and modernization.

3. OBJECTIVES

- a) To figure out the challenges faced by the matchstick producers in Kerala.
- b) To understand the attitude and consumption pattern of the households in Kerala, regarding matchstick and the alternative products.

4. METHODOLOGY

The study is principally based on a sample survey conducted in Trivandrum, Kollam, Kottayam and Ernakulum districts of Kerala focusing on the matchstick firms located over these districts. It is intended to cover the total output produced and the sale of the concerned firms. It involves thirteen entrepreneurial reviews and hundred reviews from the side of household consumers from the urban and rural areas of the same districts. Structured questionnaire was used as a basis for the collection of the necessary information by meeting the respondents in person. Various types of secondary data including studies reports of scholars and other institutes on rural and traditional industrialization in Kerala were also taken under consideration.

5. RELEVANCE OF THE STUDY

Many of the traditional and small scale industrial products were being replaced by machine made products of new era. As identified by the industrial conference of 1947, mechanized sector which uses capital intensive technology, as in a position to produce goods cheaper than that is produced by the village and cottage industrial sector. This is so as in the case of matchstick industry. Large shares of producers and consumers have shifted their preferences in due course regarding the production and consumption of matchstick respectively. This has affected the lives of many unskilled workers who used to earn a living from these firms. Therefore it is highly relevant to concentrate on the reasons for this shift in consumer preference and the current status of matchstick industry, being one of the most age old traditional establishments in Kerala. Thus the study focuses on the survival of matchstick industry in Kerala.

6. PERSPECTIVE OF PRODUCERS

A producer is a person or a group of people who are engaged with the planning, coordination and control of manufacturing matchstick. He or she makes sure that the goods and services are produced efficiently and that the correct amount is produced at the right cost and level of quality. Matchstick produces are spread all over Kerala and they have been engaged in this production process for more than 10 years for running this industry, produces most receive some decent return. The analysis of the various factors affecting them tells us, why they are still engaged in the production of matchsticks even though this Industries faces several crisis in the present scenario.

6.1. Nature of the Firm

Analyzing the nature of the firm, around 92.3 % of the forms acts as single unit and the remaining 7.7 % have branches. The following table shows the nature of the firm:

Table 1: Nature of the firm in Percentage

Nature of the Firm	Percentage
Single	92.3
Branches	7.7

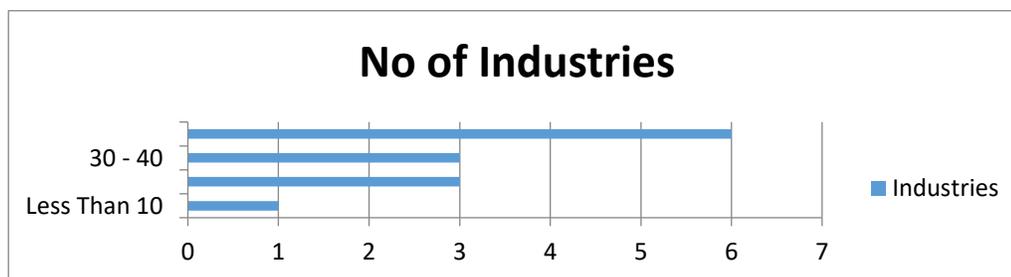
Source: primary data

Most of the producers like to have a single form so that he or she can fully concentrate on the firm and run it with more efficiently.

6.2. Total investment

The total capital of a matchstick industry was studied on the basis of their investments on plant and machinery, which helps us to evaluate the size of the industry. Accordingly classifications where made

Figure 1: Total Investment of Industries



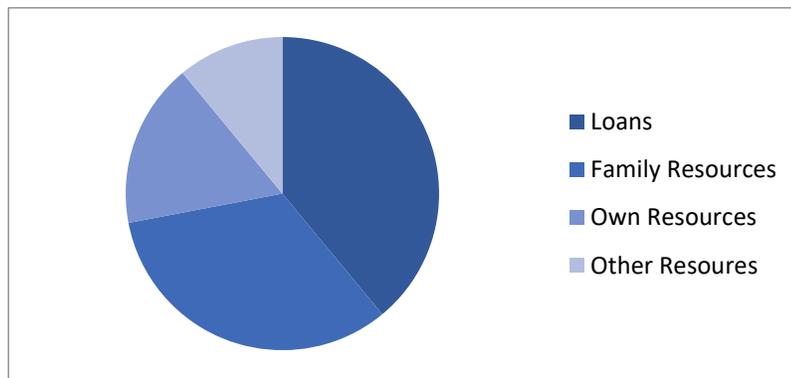
Source: primary data

Hence our sample constituted 30 percentages of micro Enterprises and the remaining 70 % of small Enterprises.

6.3. Source of investment

Putting all our eggs in one basket is never a good strategy. This is especially true when it comes to financing our new firm. From the taken sample, it is necessary to analyze the major sources of investment, since the analysis of each factor is difficult. The following figure shows the major source of investment for the total sample size.

Figure 2: Sources of Investment



Source: primary data

Source of investment is very notable. 39 % found the source from loans, 33 percentages from owned resources, 17% from family resources and the rest depend from other sources for their investment.

6.4. Employment generation

The number of people employed or, the employment opportunity created is an important tool to be analyzed to determine the contribution of the firm to the:

Table 2: Generation of Employment

No. of Workers Employed	No. of Industries	Percentage
Less than 10	3	23
Between 10 & 15	7	54
Between 15 & 20	2	15
20 & above	1	8
Total	13	100

Source: Primary data

Accordingly to the number of workers employed, 50% of the matchstick firms provided and ample employment opportunity between 10 and 15 workers and 15% contributed the economic engagement to some 20 individuals. The data also point out that only an 8 percentage of the firms provided and Employment opportunity to greater than 20 workers and remaining 23 percentage where tiny units providing employment of less than 10% per unit. Thus on an average, each firm is able to hire 15 workers and hence a matchstick firm can serve as the source of a huge employment opportunity.

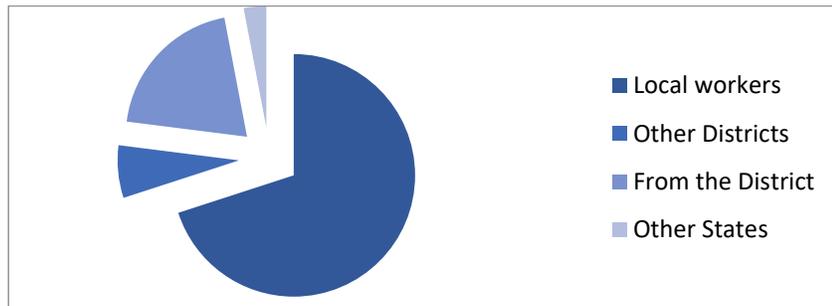
6.4.1. Sex composition of the employees

Women were mostly preferred by the producers because of their patients. Scrutiny of the sex composition gives the result that 75 percentage of the workers where female and the rest 25 percentage constitutes male workers. Women are mainly engaged in arranging the matchstick for exporting.

6.5. Nativity of the workers

The data from primary sources reveals that only three percentage of the firms investigated had the presence of non-state workers and rest of the workers are from the nearby locality which constitutes 70 percentage and the 20 percentage are from within the district and the rest of the workers belongs to other districts of Kerala. It is represented in the figure given below.

Figure 3: Nativity of Workers



Source: Primary data

Even though, the presence of migrants is neither an indication of failure of the firm in creating neither an Employment opportunity, nor it suggest the loss of employment to the native workers.

6.6. Expenditure of Production

The overall performance of the matchstick industry in Kerala is in a declining stage. the main reason behind is that decrease in the amount of raw materials even though, the raw materials for matchstick is sufficiently available in Kerala as compared to other states, the production in Kerala is not

increasing. In order to run a matchstick firm profitably it should increase various expenditures and is shown in the table below.

Table 3: Expenditure incurred by the firm

Expenditure	Percentage (%)
Salary	15
Transport	5
Raw materials	60
Interest payments	10
Other expenses	10
Total	100

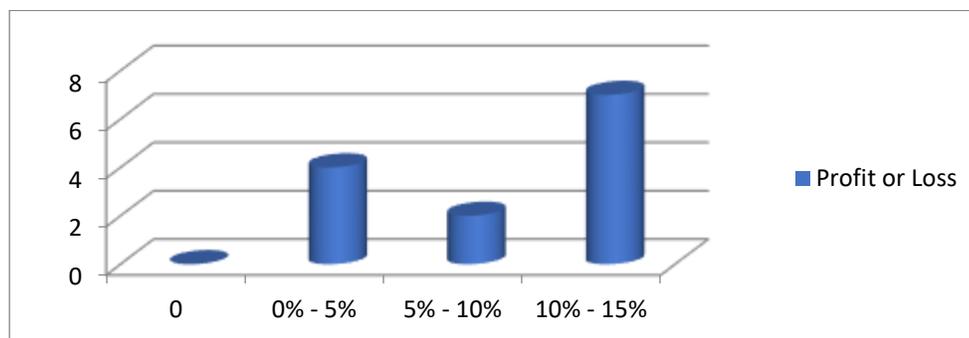
Source: primary data

As the table reveals, more than half of the total money is spent on raw materials, which constitutes 60 percentages of the total expenses and the remaining 15 percentage as the salary to the workers, 5 percentages is spent on transportation 10% percentage as interest payments and the remaining for other expenses. Thus by providing raw materials, with a low price than before, the producer could be able to raise the profit margin.

6.7. Profit of the firm

Profitably decides, whether a firm should continue to produce a commodity or to shutdown. The average earnings of the firms sample are represented below,

Figure 4: Profit or Loss



Source: primary data

The earnings of the firms were very notable. A Remarkable return of 10 to 15 percentage of profit was earned by 7(54%) of the firms of the total sample 4 firms (31%) Earned a profit up to 5 percentage and the remaining firms earned a return of 5 to 10 percentage. Therefore no firm in the sample incurred a loss which is a positive sign indicating that, the matchstick industry in Kerala can be profitable. Thus the mainstream of the sample, firms earned a small rate of return.

6.8. Reinvestment

The profit gained from the scale of the producers is not be channelized into productive investments. The reinvestment habit of the sample producer is scrutinized to find their attitude toward expansion of matchstick industry.

Table 4: Reinvestment

Approach Towards Reinvestment (in %)	
No Reinvestment	80
Less than 5%	15
Between 5% & 10%	5

Source: primary data

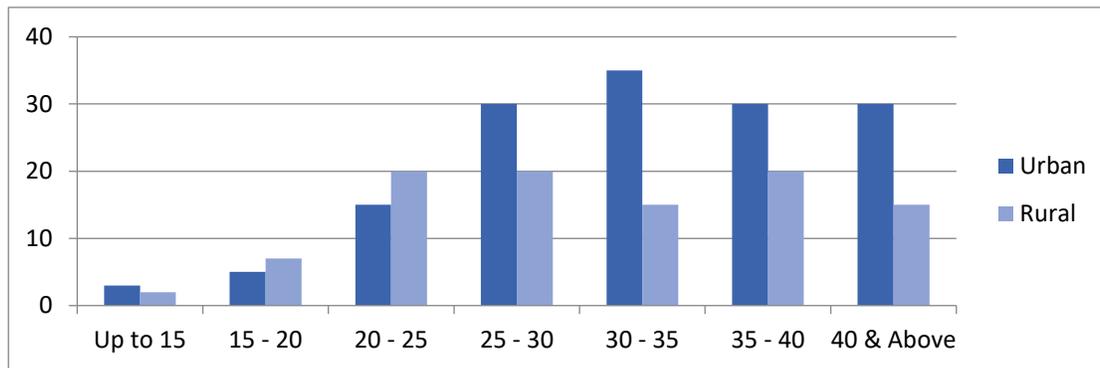
As the table reveals 5 percentages of the investors reinvest between 5 to 20% of their profit, 15 percentages of producers reinvest less than 5 percentage of their profit and the remaining 80% are not interested in the practice of reinvestment.

7. PERSPECTIVE OF CONSUMERS

A consumer is the one who pays something to consume goods and services produced. as such, consumer play a vital role in the economic system of a nation. Without consumer's demand, producers would lack one of the key motives to produce. Thus this study had a total of 100 consumers from 4 different districts. Even though, consumer's response varies, majority of them follows a similar trend.

7.1. Income of the consumer

The analysis of the personal income of the consumers helps us to understand the average amount of money that he or she could spend on the consumption of matchstick out of his or her total income. Hence it reveals the purchasing power of the consumer.

Figure 5: Consumer's Income

Source: primary data

The personal income of the consumer is considerable by sound and it ranges from 2000 to 35000 rupees. The average personal income was about 21071 rupees which was fairly satisfactory remuneration in urban areas and in the case of rural areas it was 14142 rupees which was fairly a satisfactory remuneration with regard to the rural living expenditure. There was a positive relationship between education qualification and the wages or Salary. This reveals that, consumers in the rural areas prefer matchstick is because of their lower income.

7.2. Preference at home regarding consumption of matchstick

Analyzing the preference of the consumers at home it revealed that houses on both rural and urban areas uses matchstick as well as lighters. In urban areas 50% of consumers prefer lighter as compared to that of matchstick. The main reason is that, it is more accessible and convenient them for their day-to-day usage and in the case of rural areas, 65% of the consumers

7.3. Purpose of consumption

The upshot of primary data reveals that, nowadays 90% of consumers of the total sample consume lighter along with matchstick. The purpose of consumption of both in rural area as well as in urban area is shown below

Table 5: Purpose of consumption

Purpose	Matchstick		Lighter	
	Rural (%)	Urban (%)	Rural (%)	Urban (%)
As a reserve	20	90	85	25
To meet regular needs	80	10	15	75

Source: primary data

From the enquiry, in rural areas, 80% of consumers consume matchstick to meet their regular needs and remaining 20% as their reserve. But in the case of urban areas, 90% consume matchstick as a reserve and remaining to meet their regular needs. The consumption of matchstick to meet regular need is higher in rural areas because of the presence of much older population and it became their habit. In the case of lighter, 75% of the consumer in the urban areas used it to meet their regular needs and in the case of rural area it is only 15%. It is mainly due to the fact that consumption depends on standard of living a great extent. In the case of reserves, 85% of consumers in the rural areas and 25% in the urban areas use lighters.

7.4. Preference for matchstick and lighter

There is an expectation among today's consumers that, the product he or she could buy should be durable, save time and easy accessible. Out of the total sample, consumers can be basically divided into two: adults and children. Preference for them in both rural and urban areas are shown below

Table 6: Preference for Matchstick and Lighter

Products	Rural Areas		Urban Areas	
	Children (%)	Adults (%)	Children (%)	Adults (%)
Matchstick	50	60	05	25
Lighter	50	40	95	75

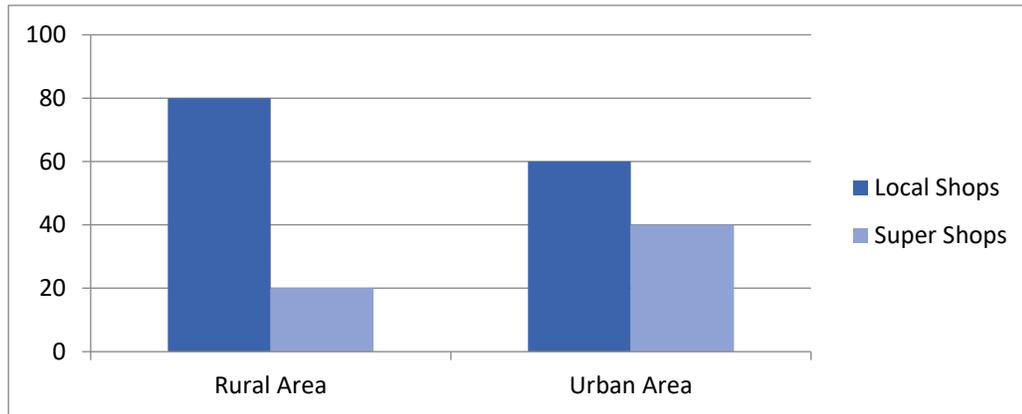
Source: Primary Data

In rural areas, among adults, 60% of them uses matchstick and among children only 50% uses matchstick and the remaining adults 40% and children 50% uses lighter. In the case of urban areas, the consumption of lighter is much higher among children 95% and adults 75%. Only few, which constitutes 5% of children and 25% of adults used matchstick. This shows the lack of interest among the young generation in the usage of matchstick.

7.5. Shopping habit of matchstick

Of the total sample of consumers, consumption takes place mainly from local shops and from supermarkets. The following figure shows, from where consumers in both rural and urban areas purchase matchstick

Figure 6: Shopping Habit



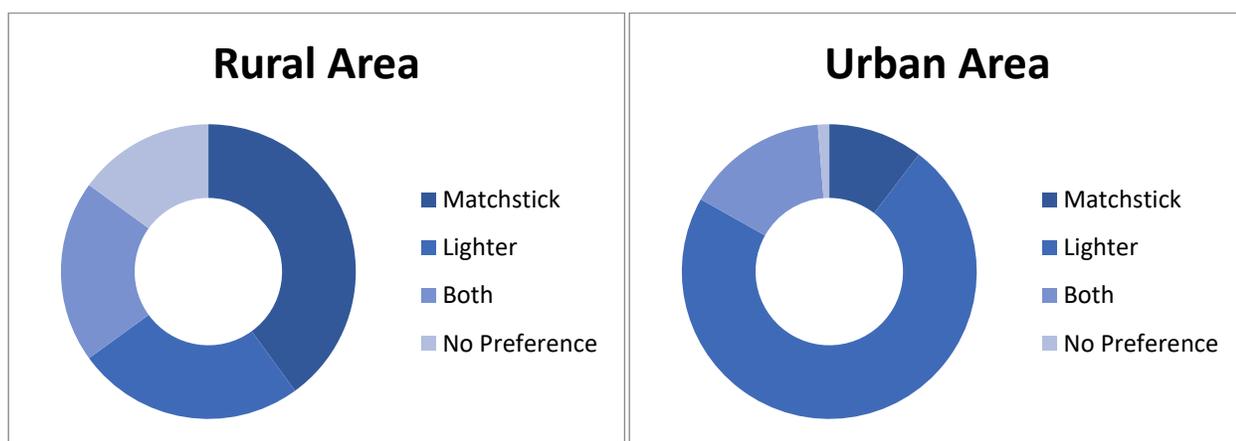
Source: primary data

The figure above suggests that, in rural areas 80% of the consumers purchase matchstick from local shops and the remaining 20 from supermarkets. But in urban areas around 60% consume matchstick some local shops and the remaining from supermarkets. It is evident that most of the consumers got it from local shops as compared to that of supermarkets.

7.6. Consumer satisfaction

Consumer satisfaction is generally seen as a positive feeling towards a purchase of a commodity. The analysis of the satisfaction level of the consumer is very essential and is shown below.

Figure 7: Consumer satisfaction



Source: primary data

As the figure suggest, in rural areas, 40% of consumers prefer matchstick 25% prefers lighter and 20% prefers both. In the case of urban areas, 75% that is more than half of the total sample in urban areas

prefers lighter, 15% prefers both matchstick and lighter and 10% prefer matchstick. Remaining 15% and 5% of consumer in the sample in rural and urban areas has no preference regarding the consumption and it is only a minority of the sample consumer.

8. FINDINGS

The findings from the study point to the fact that the survival of matchstick industry could employ rural poor boost village economics and attain economic independence of Kerala. Major findings are:

- The concentration or participation of youth is comparatively very low in this industry. This may be due to the fact that the educated young populations of Kerala are more interested in engaging in a white-collar job.
- Majority of the workers do not have an alternative employment. Most of them are full time employees and out of them a major share is aged population. So, it becomes difficult for them to engage in an alternative job.
- Most of the firms provide only a subsistence wage to the workers. All the socio-economic needs of the workers have to be met with the job they are engaged in.
- There is not any government intervention in the development of matchstick industry. The state government has not made any commendable initiatives in industry demand, protecting the interest of producers or raising the price of the commodity.
- Many of the matchstick producers are not willing to expand the firm and they are not interested in transferring this source of employment to their next generation
- The cost of production is increasing on large scale and the price of the commodity is stable for a very long period of time.
- The complete manufacturing of matchstick does not occur in Kerala. The final product is distributed through nearby states like Tamil Nadu. The process of dipping is excluded in matchstick firms of Kerala.
- Since the remuneration is low and majority of firms are located in rural areas. Major share of employees are women.
- As the employment is not fixed or secure in nature, the employees are not bounded by any kind of insurance coverage.
- As the existing firms are at a shutdown point no new investments are made in this industry and the existing ones are showing tenancy to exit. Also, there are a number of important issues and major constraints that confront the industry. These include:
 - Shortages of raw materials, particularly match quality soft woods, but also chemicals, match wax and wax paper

- Geographical distribution of the industry in one region and resulting labour shortages
- Exploitation of women and child labour by these monopolists
- The failure of the cottage sector
- The unique problems of the veneer and splint making industry
- Inadequate supply of electric power
- Lack of training facilities for skilled workers
- Lack of research and development facilities to undertake systematic development of rubber wood
- Lack of marketing and institutional support

9. LIMITATIONS OF THE STUDY

- A serious drawback of the study is that, the sample is chosen randomly for convenience, and its not be the true representation of the whole Kerala as it covers just 13 firms in four districts of Kerala.
- Most of the industries are in the stage of shutting down. So, there are no proper records for undertaking a comprehensive study.
- Majority of the matchstick industries are not officially registered. So, it is an obstacle to get more details about the firms.
- The response of the workers may be ambiguous due to many factors including psychology, presence of employers at the time of response etc.

10. SUGGESTIONS

- There should be innovative participation and intervention from the part of the government to uphold the matchstick producers of the state.
- Government could regulate cost of production by ensuring easy accessibility to raw materials at a subsidized rate.
- All firms should be brought within the preview of officially registered under the state industrial board.
- The firm and employees should have insurance coverage.
- Effective fiscal policies could expand the market for matchstick
- Through advertisements and promotions, the demand of the product could be raised by making people aware of protecting traditional industries.

- Government should take steps to associate traditional industries with innovative startups to induce fresh investments.
- Some state government social forestry programs are already undertaking matchwood production on a limited scale, by including species like poplars and *Ailanthusmalabarica* in their seedling distribution.
- The match industry, which is owned by the private sector, is at the mercy of government owned wood supplies. The industry would like to see all suitable soft woods reserved exclusively for match production, It would also benefit from increased access to imported lumber.
- Even if all of the radical measures to solve the matchwood shortages mentioned above are implemented by the government and the industry, the only lasting solution to the matchwood shortage lies in regenerating the trees and maximizing timber production. This can be accomplished by the government and private tree farmers through more intensive management of existing plantations of softwood trees like semul.
- Matchstick producers could put forward their demand by actively participating in collective demonstrations and associations.

Today, matchstick industry in Kerala faces a massive decline in its number. In Kerala, the revival process of the concerned industry can be a dual solution to both unemployment and underproduction. The support of government for the protection and development of the industry could save the life and livelihood of many unskilled, uneducated poor workers.

11. CONCLUSION

Matchstick industry is a prestigious traditional industry of Kerala. The industry once provided a large number of employment opportunities to rural illiterates. Thus, the industry was a booster of village economics and small-scale sector of Kerala. However, the present performance of matchstick industry is on diminishing trend. The check on undue growth of mechanized sector by planned development of basic and traditional industries can effectively bring back the glory of matchstick industry.

The study deliberates on the survival of matchstick industry and the role of other alternative products in replacing matchsticks by analyzing 13 entrepreneurial units, scattered in 4 districts of Kerala. The study is mainly based on first-hand information collected from Perumbavoor, Changanacherry, Kundera and Neyyattinkara areas of districts Ernakulum, Kottayam, Kollam and Thiruvananthapuram respectively. Each cluster contributed to 3-4 firms of the total sample. In the case of consumers, 100 households were chosen in total. Hence the total sample of the study consisted of 13 firms and 100 households' consumers.

In the case of matchstick industry, the phenomenal growth of the small-scale sector may be largely due to the differential excise levies which have acted as a disincentive for small units to expand their production and even encouraged some of the bigger units to go for deliberate fragmentation to get the benefit of reduced levies. The study views matchstick industry as a contributor to the economic development and overall industrial growth of the state by analyzing that could be realized through the benefits it renders to the economy, including the entrepreneurs and workers along with the satisfaction it provides to its consumers.

12. BIBLIOGRAPHY

- Bennett, H., ed. The Chemical Formulary, Vol. XV. 1970 Chemical Publishing Company, Inc.
- John Thomas Chirayath, (2004) A study of match industry in Kerala
- Venugopal S, (1993) "A study of village and cottage industry in Kerala, problems and prospects", published by CUSAT
- Kerala forest research institute report, (1977), Availability of wood raw materials
- Louise Raw, (1888) Striking a Light: The Bryant and May Watchwomen and their Place in History 1st Edition
- Amitabh and Kundu: (1999), "Trends and pattern of Female Employment: A case of organized informations in papola", Alach T.S: and Sharma N.: (eds) in Gender and Employment in India, Vikas Publishing House, Private Ltd.
- Nancy David I.: (1996) "Plight of unorganized women workers in Tripathy S.N.: (ed), Unorganised women labour in India, Discovery publishing house, New Delhi.
- Handmade safety Matches industry in India: (Booklets issued by the All India chamber of Match industries).
- John Thomas Chirayath: (1968), "A Study of the Match Industry in Kerala", (Industrial study series) Labour and Industrial Bureau, Trivandrum.
- Devadoss J.: (2004) Joint secretary, south India Match Manufacturers Association, Kovilpatti, "Small Match units facing stiff competition from corporate" The Hindu, 16 December
- Smith E and Thomas Wickel. W.W (1972), "Cross cultural among employees" – A case study, Management Review, Vol.10, spring, p.29.
- Perumalammal (1981): "An Economic study of women workers of match workers of match factories in Thayilpatti". Unpublished M.Phil. Thesis, Madurai Kamaraj University, Madurai.

- Ramalakshmi M: (1982) “An economic study of the working and living conditions of the women labour in the match units in Virudhunagar”, Unpublished M.Phil. thesis, Madurai Kamaraj University, Madurai.
- Moulik T. K and Purusotham P: (1982), “Match industry in Sivakasi” Economic and Political Weekly, Vol.XVIII, p.90.
- Smith Kothari: (1983) “There is a blood on those match sticks”, Economic and Political Weekly, Vol.18, pp.119-1202.
- Suresh Babu M.: (1983), “What Ails the handmade match industry”, Southern Economist, Vol.2.2, No.1, pp. 19-20.
- Esakky S.: (1984) “A study on the Economic and social consequences of child labour employment in match industry in and around Sivakasi in Tamil Nadu”, Unpublished M.Phil. Thesis Annamalai university, Chitambaram.
- Kamali C.: (1986), “Child labour in match units at fireworks at Sivakasi”, Unpublished research thesis, Madurai Kamaraj University, Madurai
- Natarajan S.R.: (1987), “Women and child workers in safety match industry”, Social Welfare, pp. 4-7.
- Kaptan S.S.: “A case study of Amaravathi city: The Income: wages and working conditions of women workers in the unorganized sector”, Social Welfare, May 1990, Pp. 29-31.
- Narasimhalu K.: and Sathya Murthy G. (1991) “Performance of Match industry – A case study of Chittoor District”, Khadi Gramodyog, September, Pp. 484-490.
- Madasamy V.: (1994), “A study of the problem of production in cottage match industrial units in Kamaraj District”, Unpublished Ph.D. thesis, Madurai Kamaraj University, Madurai
- Amarjothi (2000): “Human Resource management of match industry in Sivakasi”. Unpublished PhD thesis, Madurai Kamaraj University, Madurai.
- www.matchstick productions
- www.thehindu.com
- www.tidco.com.
- www.anjac.org.
- www.fao.org
- www.keralaindustry.org