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**ENTREPRENEURIAL BEHAVIOUR OF
COCONUT OIL-BASED UNIT-OWNERS**

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**Thesis submitted in partial fulfillment of the requirement
for the degree of**



Master of Science in Agriculture

**Faculty of Agriculture
Kerala Agricultural University, Thrissur**

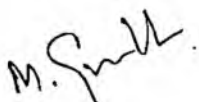
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DECLARATION


I hereby declare that this thesis entitled “**Entrepreneurial behaviour of coconut oil-based - unit owners**” is a bonafide record of research work done by me during the course of research and that the thesis has not previously formed the basis for the award to me of any degree, diploma, associateship, fellowship or other similar title, of any other university or society.

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CERTIFICATE

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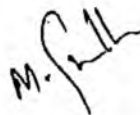
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INTRODUCTION

1. INTRODUCTION

A country may possess abundant and in-exhaustible natural and physical resources, necessary machinery and capital requirements but unless there are enterprising human resources in right proportion, set the task and visualize the task and see to it's accomplishment, the nation cannot make rapid strides towards social and economic development. The necessity is felt more in the agriculture sector in India wherein more than 60 per cent of people are engaged.

Entrepreneur is the central figure of economic activity and prime mover of development. They are persons who initiate, organize, manage and control the affairs of an enterprise that combine the factors of production to supply goods and services in any sector. As such the development or under development is the reflection of the development or under development of entrepreneurship in the country. Entrepreneurial skill, therefore, is to be regarded as the most needed component for the development.

Copra processing, coconut oil extraction and coir manufacturing are the traditional coconut based industries in the country (Choudhary and Mathew, 2004). Coconut palm, being a crop of strategic importance in all growing countries, both in terms of it's agronomic position and intimacy with human being as a social and cultural commodity, has much more significance in socio economic conditions (Mathew, 2004). In India, the crop is cultivated in 1.892 million ha with an annual production of 12822 million nuts and average productivity of 6776 nuts/ha. All India figures indicate that 92.43 per cent of the area and 91.31 per cent production in the country is concentrated in the four southern states of Kerala, Tamil Nadu,

Karnataka and Andhra Pradesh. Among these states, Kerala accounts for the largest area and production sharing 50.76 per cent of total area and 43.66 per cent of total production, respectively (Khan, 2004).

An effort made in the past has resulted in substantial improvement in production and productivity through adoption of improved technologies. New high cultivars and hybrids have been developed, diversity has been conserved, integrated pest and disease management has been adopted, several products other than coconut oil have been developed and commercialized. This has given boost to the coconut industry, which is by no means, an insignificant achievement. However there is trend for reduced farm income due to fluctuating prices. Liberalization and globalization of the economy has also put pressure on the competitiveness of coconut industry. Import of low priced substitute oil such as palm oil, and soybean oil from abroad will erode domestic demand for coconut oil unless its price is on par with that of competing oils. The downward pressure on the price of domestic coconut oil is causing destabilizing effect on the household economy of the coconut community in the country (Singh, 2003).

Coconut had a high position in international trade till the twentieth century. But now coconut is dethroned from this supreme position. This is attributed to several reasons such as competitions from other vegetable oils and synthetics, campaigns against coconut oil, high cost of production, low yield of palm due to serious diseases like wilt, sudden price fall, and large scale planting of cash crops like rubber through replanting of existing coconut crop. Lack of modern technologies within the country for large-scale manufacture of value added coconut products is one of the bottlenecks that lead to retarded growth of coconut industry.

There are two possible ways to rejuvenate coconut industry. One is reducing cost of production and increasing production. The second and most feasible way is product diversification and value addition. Though

India has a leading position in coconut production, the growth of by-products development and bio waste utilization is considerably lower in comparison with other nations like Philippines and Indonesia. Therefore, the need of the hour for India is to accomplish product diversification and value addition and to extend use of coconut and its products to ensure remunerative price to coconut sector (Punchihewa, 2000).

1.1 NEED OF THE STUDY

Kerala state accounts for 51 per cent of area under and 43.62 per cent of production of coconut in the country. About 28 per cent of the total cropped area in the state is under coconut and hence is an important source of income to both growers and traders in the state. The crop is main stay of the people with the entire fabric of rural economy is depending on the growth of the crop. The contribution of the crop to the annual income of the state is around 15 per cent and to the agricultural income is 35 per cent. The processing industries and other activities provide direct employment opportunities to over a million people in the state and sustains inter state trading in coconut products amounting to a gross annual turn over of about Rs. 20,000 crores. The coconut processing industries and other related activities provide employment opportunities to over 2 million people in the state (Choudhary *et.al.*2004)

Coconut oil industry has been one of the important industries in the state. Earlier, a lion's share of coconut oil available, sold and consumed throughout the country was produced in Kerala. Now the scene has changed since neighboring states too have become coconut oil producing states. These states have now started to compete with Kerala for the North Indian markets mainly because of low labour and low transportation costs. Though there were more than five hundred milling units, a giant portion of these

units have either suspended or stopped production due to shortage of raw materials namely copra (The Hindu, 2005).

Remarkable growth in agriculture can be attained only if proper entrepreneurial skill and hard work is geared up appropriately. Although many technologies may be developed, they can be fully exploited only if the people involved are skilled and with sufficient entrepreneurial behaviour. Without caring for developing the entrepreneurial culture of the farming community, we want to straight away industrialize the economy. It is like putting the cart before the horse. This in turn, requires promotion of entrepreneurial spirit among the farmers.

Coconut oil is a commodity whose price keeps fluctuating depending upon its supply and demand position. Any fluctuations in the price of coconut oil either on higher or lower side will be reflected in the prices of copra and coconut. Such fluctuation in price of coconut oil will undoubtedly affect the coconut trade and industry as a whole. Even though Kerala is in the forefront of national oil industry scenario, till now no attempt has been made to analyze the entrepreneurial behaviour of persons running coconut oil based units such as copra units and oil mills. Promoting and developing entrepreneurship among the coconut oil based unit owners require initiative, encouragement and support from the development agencies. The results of the present study will be helpful in evolving strategies that in turn will improve entrepreneurial abilities of the entrepreneurs running oil mills and copra unit.

1.2 SCOPE OF THE STUDY

Entrepreneurship is a distinct factor of production contributing to economic development of a country. The wide range of significant contribution that entrepreneurship makes to the economic development

includes promotion of capital formation, creation of immediate large scale employment, and effective mobilization of capital and skill. Though the study was made with coconut oil based unit owners, it is hoped that the information and indication obtained would reveal a fair appraisal of the pattern and extent of entrepreneurship of oil based unit owners, in general. In recent times, the importance of entrepreneurship in economic development is well realized by planners, policy makers and social scientists. This study will provide database for the extension specialists, policy makers, administrators, sociologists and welfare economists to streamline strategies for the growth of farm entrepreneurs. It is essential to have a fair idea about the entrepreneurial abilities of the coconut oil based unit owners. The present study was undertaken with the following objectives.

1. To analyze the entrepreneurial behaviour of coconut oil based unit owners.
2. To study the profile characteristics of entrepreneurs.
3. To analyze the economic dimensions of the enterprise.
4. To identify the constraints experienced by the entrepreneurs while undertaking the enterprise.

1.3 LIMITATIONS OF THE STUDY

The study was confined to Thiruvananthapuram district of Kerala State. Generalizations made based on the findings of the study may have only limited applications in other areas. The present study was undertaken as a part of the requirement of the post graduate programme of the researcher and only two categories of respondents namely entrepreneurs running oil mills and entrepreneurs running copra units were included.

Since the study was completed based on expressed opinion of the respondents, it may not be free from their personal bias and prejudices. Distributed questionnaire was used for the data collection. Therefore, the concepts used in this study could not be explored in great depth and in a comprehensive manner due to constraints of money and other resources.

1.4 PRESENTATION OF THE STUDY

The report of the study has been spread out under five chapters. The first chapter deals with introduction, wherein the statement of the problem, need, scope, and limitations of the study are discussed. The second chapter covers the review of the studies related to the present study. The third chapter relates to the details of methodology used in the process of investigation. The fourth chapter deals with the results of the study obtained and discussion of the results in detail. The fifth and final chapter presents the summary of the study and suggestions for future research. The references, appendices and abstract of the thesis are given at the end.

THEORETICAL ORIENTATION

2. THEORETICAL ORIENTATION

Review of literature is necessary for any research endeavor. In this chapter an attempt is made to present the most important concepts coming under the past studies. Since this study is a pioneer work in the specific area, review could be done only from related areas of study and they are presented under the following sections

- 2.1 Concept and definition of entrepreneur and entrepreneurship
- 2.2 Dimensions of entrepreneurial behaviour
- 2.3 Profile characteristics influencing entrepreneurial behaviour
- 2.4 Economic dimensions of enterprise
- 2.5 Constraints experienced by the entrepreneurs
- 2.6 Hypotheses for the study

2.1 CONCEPT AND DEFINITION OF ENTREPRENEUR AND ENTREPRENEURSHIP

2.1.1 Entrepreneur

The word entrepreneur has been taken from the French language where it cradled and originally meant to designate an organizer of musical or other entertainments. In the early sixteenth century, it was applied to those who were engaged in military expeditions. It was extended to cover civil engineering activities such as construction and fortification in the

seventeenth century. It was only in the beginning of the eighteenth century that the word was used to refer to economic aspects.

According to Say (1827), an entrepreneur is one who combines the land of one, the labour of another and the capital of yet another, and, thus produces a product. By selling the product in the market, he pays interest on capital, rent on land, and wages to labourers and what remains is his or her profit. Thus, Say has made clear distinction between the role of capitalist as a financier and the entrepreneur as an organizer. According to him, three factors form the crux of entrepreneurship.

- a) Moral qualities for the work consisting of judgment.
- b) Command on sufficient capital resources and
- c) Effective superintendence and administration to overcome uncertainty of profits.

Cole (1959) described an entrepreneur as a decision maker.

Schumpeter (1954) regarded entrepreneur basically as an innovator who carries out new combinations to initiate and accelerate the process of economic development. Innovation may assume the following forms.

- i. Introduction of new goods
- ii. Introduction of new methods of production
- iii. Opening of a new market
- iv. Conquest of new source of raw materials or half manufactured goods and
- v. Carrying of new organization of any industry.

Johl and Kapur (1973) described farm entrepreneur as a person who organizes and operates the business and is responsible for the results that is, losses and gains from the business. He is a pioneer in organizing and developing the firm.

Leads and Stawiton (1978) defined entrepreneur as a person who initiates production, takes decisions, bears risks involved and organizes and co-ordinates the other factors.

Patel (1987) defined entrepreneur as the person who catalyses resources, risks and manage them so as to establish a viable sustained employment generating activity.

Dixit (1988) said that a true entrepreneur is one who germinates the concept, takes initiative, seizes the opportunity, bears the risks, promotes the organization and manages in spite of odds to achieve the said goals. In fact he acts as a "spark plug" to transfer the economic scene and brings a new dynamism into it.

Khan (1992) stated that entrepreneurs are the men of skills, experience, dexterity, expertise and flair.

Sharma and Singh (1994) reported that entrepreneur is one who can transform raw materials into goods and services who can effectively utilize physical and financial resources for creating wealth, income and employment, who can innovate new products, standardize or upgrade existing products for creating new markets and new customers.

Khanka (2002) defined entrepreneur as a person who tries to create something new, organizes production and undertakes risks and handles economic uncertainty involved in enterprise.

Bheemappa (2003) defined entrepreneur basically as an innovator who introduces something new into the economy. He is a person who is capable of taking investment, decisions, calculated risks under conditions of uncertainty, can plan and innovate, take prompt and wise decisions in selection of a product, or product mix, technology mix and marketing.

Palanivelu and Rajanarayanan (2005) defined entrepreneur as one who brings resources, labour, materials and other asset into combinations that make their value greater than before and also one who introduces changes, innovations and a new order.

2.1.2 Entrepreneurship

Rao and Mehta (1978) described entrepreneurship as a creative and innovative response to environment. Such a response can take place in any field of endeavor- business, industry, agriculture, education and social work.

Reddy (1989) stated that entrepreneurship is a mental urge to take risk in the face of uncertainties and intuition and capacities of seeing things in a way which afterwards prove to be true.

Khan (1992) stated that entrepreneurship is the basic business acumen of a successful entrepreneur.

Vijayalakshmi (1992) stated that entrepreneurship is the ability to coordinate and organize, manage and maintain and reap the best even out of the worst situation.

Sharma and Singh (1994) is of the opinion that entrepreneurship is essentially a function, creativity and behaviour manifestation of a person for shifting resources from areas of low productivity to higher productivity.

Sheela (1994) defined entrepreneurship as the ability to discover an investment opportunity and to organize a money making enterprise contributing to real economic growth.

Desai (1995) stated that entrepreneurship is the propensity of mind to take calculated risks with confidence to achieve a predetermined business.

Khanka (2002) stated that entrepreneurship is a process, which involves various activities to be undertaken to start an enterprise. It is, thus a process of giving birth to a new enterprise.

Bheemappa (2003) defined entrepreneurship as multidimensional encompassing financial, managerial and functional aspects of an enterprise.

Palanivelu and Rajanarayanan (2005) defined entrepreneurship as the process of creating something new with value by devoting the necessary time and effort assuming the accompanying financial, psychic and social risks and receiving the resulting rewards of monetary and personal satisfaction and independence.

2.2 DIMENSIONS OF ENTREPRENEURIAL BEHAVIOUR

Nandapurkar (1982) developed an objective instrument to measure the entrepreneurial behaviour of small farmers by taking ten components namely, innovativeness, ability to coordinate farm activities, achievement motivation, decision making ability, information seeking ability, assistance of management services, cosmopolitaness, knowledge of farming enterprises, risk taking ability and leadership ability.

Raghavacharyulu (1983) reported that small farmers who had high formal education, high social participation, more farming experience, comparatively big farm size, high cropping intensity and high income had high entrepreneurial behaviour.

Ganguly (1990) stated that agro-based industries provided an excellent nexus in promoting integrated development of agriculture and industry and in transferring a stagnant rural economy into a dynamic and buoyant economy. It provided local entrepreneurship, generated employment and also checked the concentration of economic power through diffusion of ownership of means of production.

Himachalam (1990) expressed that there should be suitable organizational arrangements for disseminating information about appropriate technology to the prospective entrepreneurs and the entrepreneurs should be given proper training in the technology to be adopted.

Muthukrishnan (1993) expressed that entrepreneurial requisites are to be achieved primarily through motivation, skills acquired and workable planning and know how in the area engaged and of course the strength to mobilize finance needed to sustain the growth.

Nagpal (1990) stated that entrepreneur functions as crucial parameters of economic development with high employment and income generation personnel.

Patel (1990) states that entrepreneurial behaviour of progressive farmers was found to be related with age, education and land holding.

Perumal *et. al* (1990) pointed out that high economic orientation coupled with reasonably high risk orientation were the factors responsible for the entrepreneurial venture. A considerable percentage of respondents had high level experience, majority belong to high income category, encouraging level of social participation, and use of the mass media to a greater extent.

Shifaja (1990) found that management orientation of farmwomen in less progressive villages showed positive and significant relationship with mixed farming productivity.

Porchezian (1991) found that farmers who had more farming experience, annual income, social participation, scientific orientation, innovativeness, maintaining high self reliance, more economic motivation, high degree of credit orientation were to have more entrepreneurial behaviour.

Sabbariwal (1994) stated that a healthy industrial climate rather than psychological or sociological variables would determine the course of entrepreneurial development in the country.

Sharma and Singh (1994) in their study on determinants of entrepreneurship in agriculture, revealed that education, social participation, farm mechanization and socio economic status of marginal farmers significantly correlated with the level of knowledge and extent of adoption of recommended practices of rice cultivation.

Koontz (1994) stated that the entrepreneurs take personal risk in initiating change and they expect to be rewarded for it. They need some degrees of freedom to pursue their ideas. They in turn require sufficient authority to be delegated.

Manjula (1995) revealed that education, socioeconomic status, income, extension contact and mass media exposure had shown positive and

significant correlation with entrepreneurial behaviour of participant women in DWCRA programmes.

Jayalekshmi (1996) found that dimensions namely, economic motivation, risk taking ability, decision making ability, achievement motivation, management orientation and competition orientation contributed more in explaining the entrepreneurial behaviour of trained rural women.

Sivaprasad (1997) studied the entrepreneurial behaviour of trained youth in agriculture by taking nine components namely, credit orientation, economic motivation, innovation proneness, scientific orientation, decision making, achievement motivation, management orientation, risk orientation and competition orientation.

Seema (1997) reported that majority of the respondents in the undergraduate group and unemployed graduates were having high level of entrepreneurial behaviour. Capital investment, availability of labour, availability of resources and infrastructure facilities were ranked high as factors influencing entrepreneurial behaviour.

Chandrapaul (1998) revealed that 56.66 per cent of respondents had medium entrepreneurial behaviour followed by low (22.50 per cent) and high (20.83 per cent).

Kumar (2001) reported that 41.67 per cent of the respondents were in medium entrepreneurial behaviour followed by 22.50 per cent in high and 25.83 per cent in low entrepreneurial behaviour categories respectively.

Murali and Jhamtani (2003) revealed that young farmers with higher education belonging to higher socio economic status were high on entrepreneurial characteristics.

2.3 PROFILE CHARACTERISTICS INFLUENCING ENTREPRENEURIAL BEHAVIOUR

2.3.1 Age

Mohiuddin (1987), Jayalekshmi (1996), Thenamuda (1996), and Subramaneyeswari and Reddy (2003) reported that age was non-significantly related with entrepreneurial behaviour.

Porchezian (1991) found that age was positively and significantly related with entrepreneurial behaviour of farmers.

Jhamtani *et al.* (2003) found that majority of the educated unemployed youth belonged to the age group of 18 - 23 years (55.11 per cent) followed by the age group of 23-29 years (32.88 per cent) and above 29 years (12.32 per cent).

Murali and Jhamtani (2003) found that majority of the respondents (68.75 per cent) belonged to middle age group followed by old age group (16.25 per cent) and young age group (15.00 per cent).

Reddy (2003) found that majority of the respondents (57.33 per cent) were middle age group followed by young age (28.00 per cent) and old age group (14.67 per cent), respectively.

2.3.2 Education

Porchezian (1991), and Jhamtani *et al.* (2003) found that educational status was non significantly related with entrepreneurial behaviour.

Ahmed and Kakoty (1996), Pandya (1996), Murali and Jhamtani (2003) Thenamuda (1996), Subramanyeswari and Reddy (2003), and Reddy (2003)

reported that there was positive and significant relationship between education and entrepreneurial behaviour.

2.3.3 Experience in enterprise

Raghavacharyulu (1983) reported that farming experience had positive and significant relationship with entrepreneurial behaviour.

Perumal *et al.* (1990), Porchezian (1991), Thenamuda (1996) and Subramanyeswari and Reddy (2003) reported that there was non-significant relationship between farming experience and entrepreneurial behaviour.

2.3.4 Annual income

Porchezian (1991) found a non-significant relationship between annual income and entrepreneurial behaviour of farmers.

Jayalekshmi (1996) found that there was a significant relationship between annual income and entrepreneurial behaviour of rural women.

Pandya (1996), Thenamudha (1996), Seema (1997) and Subramanyeswari and Reddy (2003) reported that annual income had positive and significant relationship with entrepreneurial behaviour.

2.3.5 Mass media exposure

Ragavacharyulu (1983) and Sivaprasad (1997) reported that there was positive significant relationship between mass media exposure and entrepreneurial behaviour.

Perumal *et al.* (1990) and Porchezian (1991) reported that there was no significant relationship between mass media exposure and entrepreneurial behaviour.

Nizamudeen (1996) found that majority of the respondents (61.33 per cent) belonged to high mass media exposure followed by low (38.67 per cent) respectively.

Thenamudha (1996) found that majority of the respondents (73.33 per cent) had medium level of mass media exposure whereas nearly an equal per cent of respondents (36.67 per cent) had low and high level of mass media exposure.

Reddy (2003) revealed that majority of the respondents (37.33 per cent) had medium level of mass media exposure followed by low (22.67 per cent) and high (20.00 per cent) level of mass media exposure respectively.

2.3.6 Social Participation

Nandapurkar (1982), Raghavacharyulu (1983), Perumal *et al.* (1990) and Porchezian (1991) reported that entrepreneurial behaviour had positive significant relationship with social participation.

Chandra (1991) in a study on entrepreneurs found that successful entrepreneurs had greater participation in social activities when compared to unsuccessful entrepreneurs.

Nizamudeen (1996) found that more than half of the respondents (58.67 per cent) had low level of social participation followed by high level (51.33 per cent) respectively.

Thenamudha (1996) found that majority of the respondents (74.17 per cent) had medium level of social participation followed by low (18.33 per cent) and high (7.50 per cent).

Reddy (2003) revealed that majority of the respondents (60.00 per cent) had medium level of social participation followed by low (25.33 per cent) and high (14.67 per cent) level of mass media exposure respectively.

2.3.7 Extension orientation

Kokate and Nand (1991) in a study on entrepreneurial behaviour of small and marginal potato growers found that extension participation enhanced entrepreneurial behaviour of farmers.

Thenamudha (1996) found that 65.83 per cent of the respondents had medium level of extension agency contact, followed by high (29.50 per cent) and low (16.67 per cent) levels of extension agency contact.

Himaja (2001) reported that majority of the respondents had medium level of extension contact followed by low (20.00 per cent) and high (16.67 per cent) levels of extension contact.

Reddy (2003) reported that majority (60.00 per cent) of the respondents were having medium level of extension contact, followed by low (24.67 per cent) and high (15.33 per cent) levels of extension contact, respectively.

2.3.8 Level of aspiration

Seema (1986) found that level of aspiration had no significant relationship with role performance.

Jayalekshmi (1996) found that there was a significant relationship between level of aspiration and entrepreneurial behaviour of rural women.

2.3.9 Attitude towards self-employment

Nataraju and Vijayaraghavan (1991) reported that in general rural boys had a favourable attitude towards agriculture.

Pradeepkumar (1993) found that almost all the respondents had more favourable attitude towards self-employment in agriculture and allied fields and this was shared almost equally by the male and female category.

Jayalekshmi (1996), Seema (1997) and Jayalekshmi (2001) found that attitude towards self-employment was positively and significantly correlated with entrepreneurial behaviour.

2.3.10 Economic motivation

Nizamudeen (1996) found that more than three- fourth of Kuttimulla growers (80.67 per cent) had high level of economic motivation followed by low level (19.33 per cent).

Thenamudha (1996) found that majority of the respondents (70.83 per cent) had medium level of economic motivation followed by high (20.82 per cent) and low level (8.34 per cent) of economic motivation.

Seema (1997) found that economic motivation had no significant relationship with entrepreneurial behaviour of agricultural students.

2.3.11 Self reliance

Porchezian (1991), Thenamudha (1996), and Seema (1997) reported that there is significant relationship between self reliance and entrepreneurial behaviour.

2.3.12 Knowledge level about value added products

Sethy (1982) observed that knowledge about technology is an important entrepreneurial characteristic that promoted adoption of improved agricultural technology.

Jayalekshmi (1996) found that perceived knowledge of technology was positively and significantly correlated with entrepreneurial behaviour of rural women.

Nizamudeen (1996) reported that two third of the respondents (61.33 per cent) were found to have high level of knowledge regarding the cultivation practices followed by low level (38.67 per cent).

Sivaprasad (1997) found that 52 per cent and 58 per cent of the youth in sericulture and beekeeping, respectively, had higher level of knowledge about their enterprise.

Parvathi *et al.* (1998) reported that more than half of the farm women (58.33 per cent) possessed medium level of knowledge on the post harvest technologies. 23.30 per cent of the respondents had high level and 35.37 per cent had low level of knowledge on post harvest technologies, respectively.

Sasankan (2004) reported that 54 per cent of the respondents possessed high level whereas 46 per cent possess low level of knowledge about cassava cultivation.

2.4 ECONOMIC DIMENSIONS OF ENTERPRISE

Khanka (1990) reported that majority of the entrepreneurs (54%) arranged their initial capital from institutional sources followed by those who arranged the same from their own internal sources.

The present coconut marketing system is a highly exploitative trade arrangement (Harikumar, 1991 and Sahy, 1995) and dominated by local private traders (Patil and Borude, 1993 and Yashodha and Padmanabhan, 1996).

Markose (1994) had estimated that 60 per cent of the milling copra produced in Kerala was crushed for oil extraction within the state.

Yashoda and Padmanabhan (1996) concluded that majority of coconut sales had taken place through local traders and the reason for sales to local traders was the need for immediate sales and high cost of transport in Tamil Nadu.

Ananthkrishnan (1997) estimated the cost of production of one tonne of copra by indirect heat exchanger fuelled by coconut shells as Rs.46, 200 and the returns would be Rs. 55,870.

Nandakumar (1998) reported that Vettithookkam is a system being practised in which farmers are paid based on the weight of split coconut cups.

Rethinam *et al.* (2002) reported that there are two types of hot air driers- natural draught and induced draught. In the natural draught driers, hot air generated in the kiln is passed over copra by means of an efficient dampened ventilator. Any dried agricultural waste material can be used as

fuel in this type of driers. In the induced draught driers, hot air is generated by burning coconut shell in a separate system and blown into the drying chamber by means blower.

Bastine and Santhose (2004) reported that 82.4 per cent of coconut growers sold nuts to copra makers, 3.52 per cent sold nuts to village traders and oil millers.

Paul and Mathew (2002) reported that due to mite infestation the size of the nuts has been significantly reduced and it is very difficult to dehusk. Thereby additional labour and time is required for dehusking the nut.

2.5 CONSTRAINTS EXPERIENCED BY THE ENTREPRENEURS

Janadevan (1993) reported that high cost of labour, non-availability of labourers in time, inadequate and timely supply of seedlings lack of adequate financial assistance and subsidies were the major constraints faced by coconut growers.

Nizamudeen (1996) reported that the important constraints experienced by the Kuttimulla growers were difficulty in availing inputs, non-availability of credit, and inability of small growers to find market.

Thenamudha (1996) reported that non-remunerative price, high cost of raw material, high capital investment, involvement of risk and uncertainty, and difficulties in maintenance were the major problems faced in the poultry enterprise.

Banerjee and Talukar (1997) revealed that most serious problems faced by women entrepreneurs running agriculture enterprise are lack of support from government/NGOs, absence of collaborative efforts by various

organizations, lack of single window system, limitations of government policies and lack of infrastructure facilities.

Sivaprasad (1997) reported that lack of assured price, small holding size, non-availability of credit, lack of marketing facilities as the major problems in sericulture enterprise.

Kunt *et al.* (2003) reported that coconut sector is totally unorganized.

Kamaraddi and Halakatti (2004) reported that majority of the respondents (78.33 per cent) expressed non-availability of raw material as the major problem. 66.66 per cent of the respondent perceived improper marketing as a problem. Lack of financial assistance was perceived as a problem by 58.33 per cent of respondents whereas 37.50 percent of them reported lack of knowledge and skill as the major constraint.

Sivaloganathan (2004) stated that non-availability of agricultural operations in relation to their position in the market, lack of infrastructure facilities and services as the major problems in the recovery of rural credit.

Sindhu and Geethakutty (2003) reported that high price of raw material, shortage of self-finance for fixed and working capital and its high rate of interest, competition in the field from other units as the important problems faced in the management of enterprises.

Choudhary *et al.* (2004) concluded that the imperfection noted in the coconut - copra - coconut oil value chain arise from the following factors.

1. Price volatility of copra and coconut oil in the markets.
2. Absence of market intelligence mechanism based on real time price quotes.

3. Relatively poor understanding of risk management instruments and futures trading by coconut farmers, copra makers and oil mill owners.
4. Imperfection in the systems of quality determination and grading.
5. Inadequate flow of institutional finance in the coconut – copra-coconut value chain.
6. Imperfection in the working of the copra future exchange by First Commodities Exchange of India (FCEI) in Cochin.

2.5 HYPOTHESES FOR THE STUDY

2.5.1 Age

There would be no significant relationship between entrepreneurs age and their entrepreneurial behaviour.

2.5.2 Education

There would be no significant relationship between entrepreneurs education and their entrepreneurial behaviour.

2.5.3 Experience in enterprise

There would be no significant relationship between entrepreneurs annual income and their entrepreneurial behaviour.

2.5.4 Annual income

There would be no significant relationship between entrepreneurs annual income and their entrepreneurial behaviour

2.5.5 Mass media exposure

There would be no significant relationship between entrepreneurs mass media exposure and their entrepreneurial behaviour.

2.5.6 Social participation

There would be no significant relationship between entrepreneurs social participation and their entrepreneurial behaviour.

2.5.7 Extension orientation

There would be no significant relationship between entrepreneurs extension orientation and their entrepreneurial behaviour.

2.5.8 Level of aspiration

There would be no significant relationship between entrepreneurs level of aspiration and their entrepreneurial behaviour.

2.5.9 Attitude towards self employment

There would be no significant relationship between entrepreneurs attitude towards self employment and their entrepreneurial behaviour

2.5.10 Economic motivation

There would be no significant relationship between entrepreneurs economic motivation and their entrepreneurial behaviour.

2.5.11 Self reliance

There would be no significant relationship between entrepreneurs self reliance and their entrepreneurial behaviour.

2.2.12 Knowledge about value added products

There would be no significant relationship between entrepreneurs knowledge about value added products and their entrepreneurial behaviour

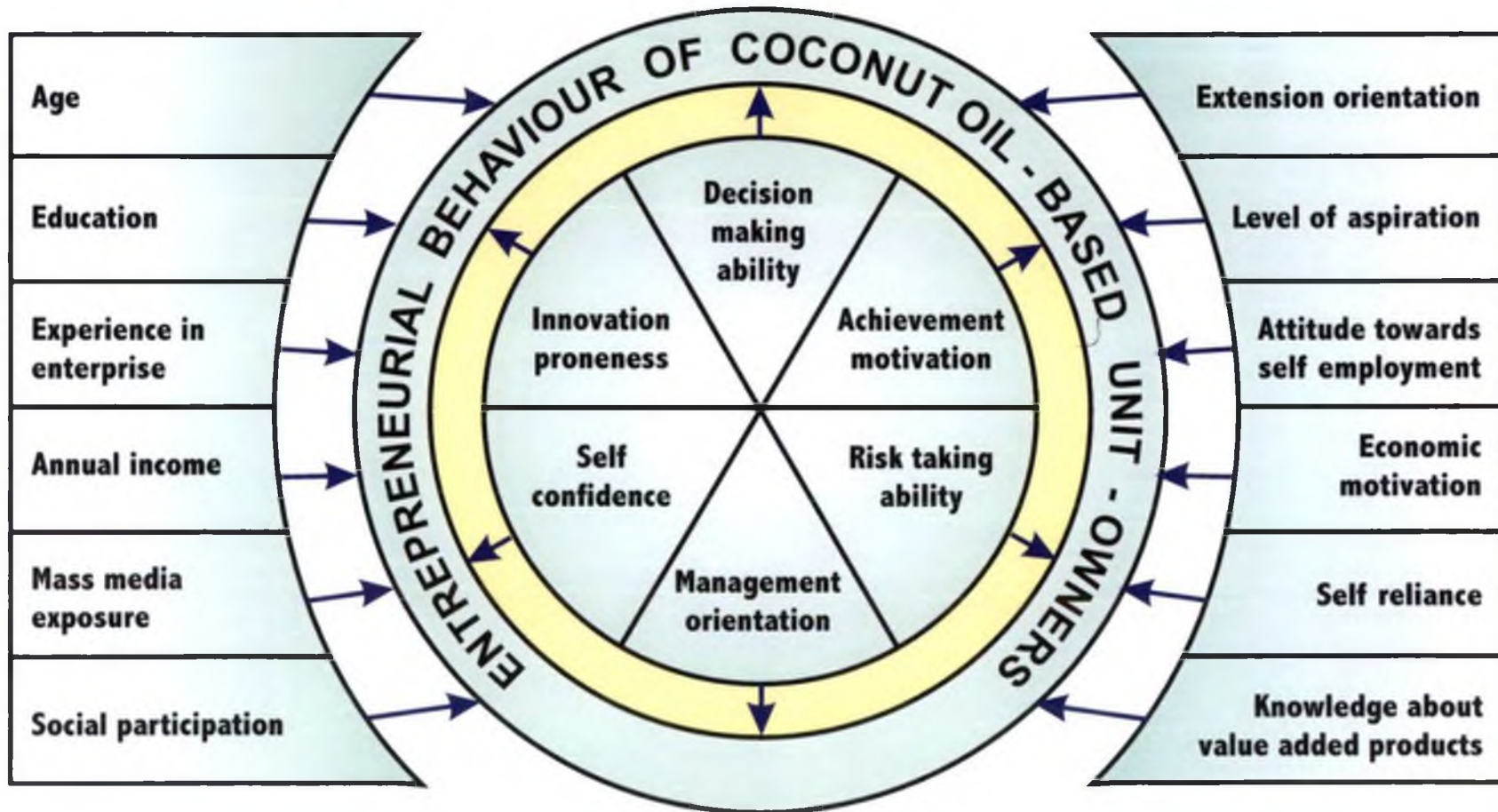


Fig. 1. Conceptual model for the study

METHODOLOGY

3.METHODOLOGY

This chapter deals with the methodology employed in the study, which are presented under the following sub headings.

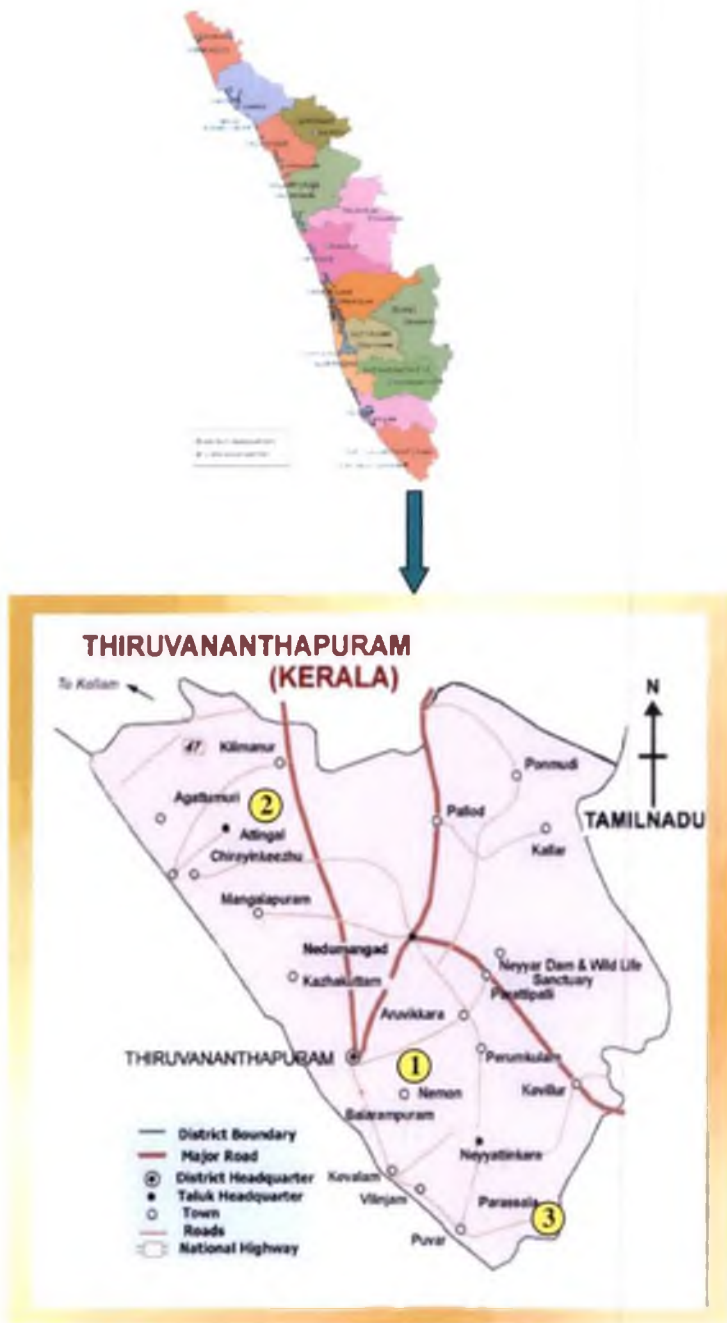
- 3.1 Locale of the study
- 3.2 Sampling procedure employed
- 3.3 Measurement of variables
- 3.4 Data collection procedure
- 3.5 Statistical techniques used in the study

3.1 LOCALE OF THE STUDY

This study was confined to Thiruvananthapuram district in Kerala State. In Thiruvananthapuram district, there are twelve block panchayats. From these, three block panchayats having more area under coconut, namely Pallichal, Pulimath and Parasala were purposively selected for the study (Fig. 2).

3.2 SAMPLING PROCEDURE EMPLOYED

Respondents were chosen from two categories, namely entrepreneurs running oil mills and entrepreneurs running copra units. From each selected block Panchayats, ten entrepreneurs running oil mills were selected randomly. Twenty-five respondents running copra units on commercial scale were randomly selected from each of the block Panchayats. Thus, the total sample comprised of 105 with two groups of respondents.



1. Pallichal

2. Pulimath

3. Parasala

Fig. 2. Map showing the location of the study

3.3 MEASUREMENT OF VARIABLES

3.1.1 Selection of dimensions of entrepreneurial behaviour and independent variables

Based on the objectives, review of literature, discussions with experts and observations made by the researcher, a list of 14 dimensions of entrepreneurial behaviour and 21 independent variables were framed along with their operational definitions and sent to 30 judges for eliciting their relevancy on a five point continuum ranging from most relevant to least relevant. (Appendix 1). The Judges were drawn from the field of agricultural extension, from entrepreneurship development programme trainers and from the Institute of Management in Government (IMG) faculty members. The scores were assigned as follows:

Response	Score
Most relevant	4
More Relevant	3
Relevant	2
Less relevant	1
Least relevant	0

The total score obtained for each variable was worked out. In the case of dimensions of entrepreneurial Behaviour, the dimensions having score of 70 per cent and above were selected and in the case of independent variables, variables having score of 60 per cent above were selected. The selected dimensions were

1. Decision making ability
2. Achievement motivation
3. Risk taking ability
4. Management orientation
5. Self confidence
6. Innovation proneness

The independent variables selected were

1. Age
2. Education
3. Experience in enterprise
4. Annual income
5. Mass media exposure
6. Social participation
7. Extension orientation
8. Level of aspiration
9. Attitude towards self employment
10. Economic motivation
11. Self reliance
12. Knowledge about value added products

3.3.2 Operationalization and measurement of dimensions of entrepreneurial behaviour

This part includes a review of methods of measurement of variables already used by different researchers and the empirical measures used in this study.

3.3.2.1 Decision making ability

In the present study, decision-making ability is operationally defined as the degree to which an entrepreneur justifies the selection of most effective means from among the available alternatives on the basis of scientific criteria for achieving maximum economic profit.

An arbitrary scale developed for the purpose measured this dimension. The scale consists of 10 items, response categories for each item, were 'independently', 'in consultation with others' for which scores given were 1 and 0 respectively. By summing up the scores, over the ten items, the decision-making score of the respondent was obtained. The score ranges from 0 to 10.

3.3.2.2 Achievement Motivation

It is defined as the desire for excellence in order to attain a sense of personal accomplishment. Achievement motivation scale used by Manohari (1988) was used for the study. The scale consists of seven statements. The responses were collected on a five-point continuum as follows.

Response	Score
Strongly Agree	4
Agree	3
Undecided	2
Disagree	1
Strongly Disagree	0

The score ranges from 0-28.

3.3.2.3 Risk taking ability

It is operationally defined as the degree to which entrepreneur is oriented towards risk and uncertainty and have courage to face the problems in starting an enterprise. Risk taking ability was measured using the scale developed by Supe (1969).

The scale consists of six statements. The respondents were asked to state their response on five point continuum ranging from strongly agree, agree, undecided, disagree, and strongly disagree with the scores of 4,3,2,1, and 0 respectively for the positive statements. The scoring procedure was reversed for the negative statements. The score ranges from 0-24.

3.3.2.4 Management orientation

This refers to the degree to which the respondent is oriented towards scientific management of an enterprise in agriculture, comprising planning, production and marketing of an enterprise.

3.3.2.4.1 Standardization of the scale

Management orientation was measured using the scale developed by Samantha (1977) with slight modification in the statements. For that, standardization was done. Standardization of the scale was done by verifying the reliability and validity of the scale.

3.3.2.4.2 Reliability of the scale

Reliability of the test was found by split-half method. In this method, the selected eighteen items were split into two equal halves of odd and even numbered items and administered to 30 non-sample respondents.

The scores obtained for all the odd items were pooled. Similarly scores obtained for all the even items were pooled. The two sets of scores thus obtained were correlated using Pearson's product moment correlation. The correlation coefficient ($r = 0.752$) for half the test was obtained. The reliability of the full test was obtained using the Spearman Brown Prophecy formula.

$$\text{Reliability of full test} = \frac{2 \times \text{reliability of } \frac{1}{2} \text{ test}}{1 + \text{reliability of } \frac{1}{2} \text{ test}}$$

Thus the reliability of the full test was 0.859, which indicates the high reliability of the scale.

3.3.2.4.3 Content validity

The main criterion for content validity is how well the contents to the scale represent the subject matter under study. Care was taken to include the items covering the universe of content.

3.3.2.4.4 Administration of scale

The scale consisted of eighteen statements, six statements each for planning, production and marketing orientation. In each group positive and negative statements were mixed. The respondents were asked to state their agreement or disagreement to each of the statements and scores of 1 and 0 were assigned respectively considering whether the statement is positive or negative. Scores for each respondent was obtained by summation of scores for all eighteen statements. The possible score range was 0-18.

3.3.2.5 Self confidence

It refers to the extent of feeling of an entrepreneur about her/his own powers, abilities and resourcefulness to perform an activity, which she/he

desires to undertake. It was measured using the scale developed by Pandiyaraj (1978). The scale consists of eight statements. The respondents were asked to state their response on a five point continuum ranging from always, most often, often, occasionally and never with the scores of 4, 3, 2, 1 and 0 respectively for the positive statements. The scoring procedure was reversed for negative statements.

Response	Score
Always	4
Most often	3
Often	2
Occasionally	1
Never	0

The score ranges from 0-32

3.3.2.6 Innovation proneness

It is defined as the degree to which an entrepreneur is relatively earlier in adopting new ideas. The scale followed by Seema (1997) was used to measure innovation proneness. This consisted of five statements of which three statements were negative. The responses were obtained on a five point continuum ranging from strongly agree to strongly disagree with scores of 4,3,2,1,0 respectively. The scoring procedure was reversed for negative statements. The scores obtained for each item were summed up to arrive at the individual score on innovation proneness. The possible score ranges from 0 to 20.

3.3.3. Operationalization of independent variables

3.3.3.1. Age

It is defined as the number of calendar years completed by an entrepreneur at the time of interview. This was measured by directly asking the respondent the number of years she/he has completed at the time of investigation. The scale used by Geetha (2002) was followed in this study.

Category	Age
Young	≤ 35 years
Middle	36 - 50 years
Old	≥ 50 years

3.3.3.2 Education

It is defined as the level of formal education attained by the respondent. It was measured using the scoring procedure followed by Jaganathan (2004). The procedure used was as follows

Category	Score
Illiterate	0
Primary school	1
Middle school	2
High school	3
College and above	4

3.3.3.3 Experience in enterprise

It refers to the experience in enterprise in terms of completed years by the respondent. In the present study, experience of the respondent in completed years was taken as such for the measurement of this variable.

3.3.3.4 Annual income

It is defined as the total earnings of the entrepreneur for one year. This was measured by directly asking the respondent about total earnings from the enterprise for one year.

3.3.3.5 Mass media exposure

Refers to the degree to which the different mass media, namely radio, television, Newspaper, Magazines, bulletins, books and films were utilized by an entrepreneur for getting information about different enterprise related activities. The procedure used by Lakshmi (2000) was followed.

The frequency of exposure	Score
Regularly	2
Occasionally	1
Never	0

The scores ranges from 14 and 0

3.3.3.6 Social participation

It refers to the content and nature of participation of an entrepreneur in various activities. In this study, social participation was measured using the scale followed by Fayas (2003). The scale has two dimensions namely,

membership in organizations and participation in organizational activities.

The scores were assigned as follows.

1. For membership in organization .

No membership in organization	0
Membership in each organization	1
Office bearer in each organization	2

2. Frequency of participation

Never attending any of the meetings	0
Sometimes attending meetings/activities	1
Regularly attending meetings	3

The scores obtained by a respondent on the above two dimensions were summed up across each items for all the organizations which gave his social participation score. The scores range from 0-18

3.3.3.7 Extension orientation

It refers to the extent of contact of an entrepreneur with different extension agencies and his/her participation in various extension activities or programmes like seminar, group discussion, meeting etc. The scoring procedure used by Bhaskaran (1979) with slight modification was followed. The response was measured as follows. The scores range from 0-27.

Response	Score
Regularly	2
Occasionally	1
Never	0

3.3.3.8 Level of aspiration

It is defined as the future level of achievement in his job, which he is expecting based on the knowledge about the level of past performance.

In this study, level of aspiration was measured by the scale used by Nizamudeen (1996). The respondents were asked to indicate the step in the ladder, which they felt, they were standing at present (at the time of study), where they were 5 years ago and where they would stand 5 years from now (from the period of study). The summed up score was taken as level of aspiration of the respondents. The scores range from 3-27.

3.3.3.9 Attitude towards self employment

This is defined as the mental disposition of the respondent towards self-employment. In the present study attitude towards self-employment was measured using the scale developed by Pradeepkumar (1993). The scale consists of 10 statements. The respondents were asked to state their agreement or disagreement to each of the statement and a score 1 and 0 were assigned respectively in the case of positive statements and for negative statements the scoring procedure was reversed. The scores obtained for each item were summed up to arrive at the individual's score on attitude towards self-employment. The possible score ranges from 0-10.

3.3.3.10 Economic motivation

It is defined as the occupational excellence in terms of profit maximization and relative value placed on economic ends by an entrepreneur. The scale used by Seema (1997) was used for the present study. The scale consists of five statements on a five-point continuum namely strongly agree, agree, undecided, disagree, strongly disagree with

the scores of 4, 3, 2, 1, 0 respectively for positive statements. The scoring procedure was reversed for negative statements. The score ranges from 0-20.

3.3.3.11 Self reliance

This refers to the extent to which a person relies on self for his future. Porchezian (1991) measured self-reliance by asking the respondents, "How much of your future depends on yourself?" The response was measured based on the following scoring systems.

Percentage	Score
100	5
75-99	4
50-74	3
25-49	2
Less than 25	1
Not at all	0

The score ranges from 0-5

3.3.3.12 Knowledge about the value added products

It is defined as understanding of the entrepreneur about the value added products in coconut. In the present study, a teacher-made test with multiple-choice questions was used to measure the knowledge of the entrepreneur on value added products in coconut. A score of 1 was given to each correct answer and zero to each wrong answer. The maximum score obtained by an individual is 8 and minimum is 0.

3.3.4 Measurement of economic dimensions of the enterprise

The method used by Sekhlon *et.al* (2003) was used to measure the economic dimensions of the enterprise. Fixed cost, variable cost, total cost, total return, net return was worked out to arrive profit or loss statement of enterprise. Test ratios (benefit- cost ratio, current ratio, net capital ratio) were also worked out to find out financial position of the enterprise. The related concepts are explained as below.

3.3.4.1 Fixed Cost

Snodgrass and Wallace (1982) defined fixed cost as the cost that did not change as the level of output changed. For the present study, fixed cost was considered as those cost, which does not change as outputs change. This includes depreciation on building, machinery and equipments, interest on fixed capital (8 per cent to the capital investment as long-term interest rate).

In this study, depreciation was calculated by using diminishing balance method. According to this method, the original cost of an asset is divided by its expected life to get a fixed percentage of depreciation. This percentage, which is the amount of depreciation in the first year, is deducted from the original value of asset to get the remaining value of asset in the first year itself. The same percentage of depreciation as in the first year is charged in the second year on the remaining value of the first year's asset. The remaining value in the second year is used to workout the amount of depreciation in the third year and so on.

3.3.4.2 Variable Cost

Johl and Kapur (1973) defined variable cost, using the variable inputs as those cost which varied with level of production.

For the present study, variable cost includes price of coconut, labour charges, transport charges, interest on working capital etc. Interest on working capital was worked at rate of 7 per cent.

3.3.4.3. Total Cost

Total cost was calculated by adding the fixed cost and variable cost.

3.3.4.4. Total Return

Johl and Kapur (1973) defined total return as the product of the total production and price per unit. For the present study, total return was the total sale value from copra or coconut oil and its by-product.

3.3.4.5. Net Return

Shukla and Misra (1974) defined the net income as the total income minus total costs.

3.3.4.6 Benefit – Cost Ratio (BCR)

It is the ratio between total return and total cost. If the BCR is more than one, then it indicates the profitability of enterprise over a period of time.

3.3.4.7 Current Ratio

It is the ratio between current assets and current liabilities. Current assets are very liquid or short-term assets. They can be converted into cash within a short time, usually one year. For example the produce ready for disposal namely, copra, coconut oil and by-products. Current liabilities are those debts that must be paid in the short term or in very near future.

This ratio indicates the capacity of the entrepreneur to meet their immediate financial obligations. A ratio of more than one indicates a favourable run of the enterprise. Current ratio reflects liquidity with in year.

3.3.4.8 Net capital ratio

It is the ratio between total assets and total liabilities. This ratio is also the most important measure of overall solvency of the entrepreneur. If the net capital ratio is more than one, it indicates sound long-term financial position of enterprise and funds of institution are safe.

3.3.5 Measurement of constraints experienced by the entrepreneurs

One of the objectives was to identify the constraints experienced by the entrepreneur in starting and running an enterprise. In the present study, constraint is operationalised as those items of difficulties or problems faced by an entrepreneur.

After discussions with a cross section of entrepreneurs and review of literature, nine problems each affecting entrepreneurs running coconut oil mill and copra unit owners were listed. The respondents were asked to rank these items from 1 to 8 by making overall comparison with regard to the intensity of the constraints. The respondents were asked to place items, which they did not consider as a constraint in the IX rank. A score of 8,7,6,5,4,3,2,1 and 0 were given to I, II, III, IV, V, VI, VII, VIII and IX ranks respectively. The frequencies of the respondent ranking each constraint in each rank were found out and multiplied with corresponding score value. The constraint with higher score value was considered as the most serious one followed by others in order of decreasing score values.

3.4 DATA COLLECTION PROCEDURE

An Interview schedule including all aspects mentioned above was prepared in English (Appendix – II) and translated to Malayalam for collecting data from the respondents.

All the 105 respondents were contacted in their respective houses and rapport was established. The questions were put in a conversational manner and responses were transcribed in the schedule itself. In case of responses, which were not clear, rechecking was done.

3.5 STATISTICAL TECHNIQUES USED IN THE STUDY

1. Developing entrepreneurial behaviour index

Suppose X_{ij} is the score for the individual ($i = 1, 2, \dots, n$) for the j^{th} component ($j = 1, 2, \dots, k$) of entrepreneurial behaviour, where n is the number of respondent and k is the number of components, then the index (I) of individual is determined as

$$I = w_1 X_1 + w_2 X_2 + \dots + w_k X_k$$

where $w_i = 1 / \sigma_i^2$, σ_i^2 being the variance for the i^{th} component character and w_i , the corresponding weight attached to this component character.

2. Mean \pm standard deviation is used to categorize the respondents
3. Percentage analysis was done to explain the distribution on respondents
4. Simple correlation analysis was done to measure the relationship between the entrepreneurial behaviour and profile characteristics.

RESULTS AND DISCUSSION

4. RESULTS AND DISCUSSION

This chapter comprises the findings of the present study. The analyzed data were brought out in sequence in line with the objectives set forth and the findings with appropriate discussion are presented under the following sub headings.

- 4.1. Profile characteristics of the entrepreneurs
- 4.2. Entrepreneurial behaviour of entrepreneurs
- 4.3. Relationship between profile characteristics of the entrepreneurs and their entrepreneurial behaviour.
- 4.4. Economic dimensions of the enterprise
- 4.5. Constraints experienced by the entrepreneurs while undertaking enterprise
- 4.6. Suggestions to resolve the constraints

4.1 PROFILE CHARACTERISTICS OF THE ENTREPRENEURS.

4.1 Age

Table 1. Distribution of the respondents according to their age

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1.	Young	29	38.67	9	30.00
2.	Middle	39	52.00	14	46.67
3.	Old	7	9.33	7	23.33
	Total	75	100.00	30	100.00

It is observed from the Table.1 that majority of the respondents (52.00 per cent) of the copra unit owners were found to be in the middle age category, followed by young age (38.67 per cent) and old age categories (9.33 per cent).

When it comes to coconut oil mill owners, 46.67 per cent belonged to the middle age group, followed by young age group (30.00 per cent) and old age (23.33 per cent) respectively.

4.1.2 Education

Table 2. Distribution of the respondents according to their Education

Sl. No	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1.	Illiterate	0	0	0	0
2.	Primary school	10	13.30	4	13.33
3.	Middle school	26	34.70	6	20.00
4.	High School	36	48.00	14	46.67
5.	College and above	3	4.00	6	20.00
	Total	75	100.00	30	100.00

The above Table 2 revealed that majority (48.00 per cent) of the copra unit owners had high school level education followed by middle school (34.70 per cent), primary school level (13.30 per cent), and College and above (4.00 per cent). Whereas in case of coconut oil mill owners, 46.67 per cent of the respondents had high school education, followed by equal percentage of (20.00 per cent) respondents in the middle school level and college and above and least in the primary school (13.33 percent).

The result is a reflection of the higher literacy rate of Kerala State. There were no illiterates among the respondents. This shows that today's entrepreneurs are well educated.

4.1.3 Experience in enterprise

Table 3. Distribution of the respondents according to the experience in enterprise

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1	Low	10	13.33	5	16.67
2	Medium	41	54.67	16	53.33
3	High	24	32.00	9	30.00
	Total	75	100.00	30.00	100.00

Mean = 6.28

Mean = 9.36

SD = 3.20

SD = 3.80

It is seen from Table 3 that more than half (54.67 per cent) had medium level experience followed by high (32.00 per cent) and low level (13.33 per cent) of experience among copra unit owners. Whereas among coconut oil mill owners, majority (53.33 per cent) of the respondents had medium level of experience followed by high level (30.00 per cent) and low level (16.67 per cent). Copra making and coconut oil milling are traditional occupations in Kerala and hence higher distribution of respondents in the medium group is not surprising.

4.1.4. Annual income

Table 4. Distribution of the respondents according to their annual income

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1	Low	28	37.33	7	23.33
2	Medium	32	42.67	15	50.00
3	High	15	20.00	8	26.67
	Total	75	100.00	30	100.00
		Mean = 70425.75 SD = 10080.10		Mean = 95460.40 SD = 18454.67	

It is seen from the Table 4 that 42.67 per cent of copra unit owners had medium level annual income, followed by low (37.33 per cent) and high (20.00 per cent) respectively. Whereas in coconut oil mill owners, 50.00 per cent of the respondents had medium level of annual income, followed by high (26.67 per cent) and low (23.33 per cent). This is an indication that copra making and coconut oil milling are two promising agro-based enterprises.

4.1.5 Mass media exposure

Table 5. Distribution of the respondents according to the mass media exposure

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1	Low	21	28.00	8	26.67
2	Medium	29	38.67	13	43.33
3	High	25	33.33	9	30.00
	Total	75	100.00	30	100.00
		Mean = 7.92 SD = 2.51		Mean = 8.90 SD = 2.25	

It is noticed from Table 5 that majority (38.67 per cent) of copra unit owners had medium level mass media exposure followed by high (33.33 per cent) and low level (28.00 per cent) of mass media exposure respectively. 43.33 per cent of coconut oil mill owners possessed medium level of mass media exposure followed high (30.00 percent) and low (26.67 per cent) respectively.

In Kerala, because of the high literacy rate most of the households subscribe at least one newspaper and every family possess radio or television. Hence the respondents had medium to high level of mass media exposure.

4.1.6 Social participation

Table 6. Distribution of the respondents according to their social participation

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1	Low	37	49.34	18	60.00
2	Medium	25	33.33	5	16.67
3	High	13	17.33	7	23.33
	Total	75	100.00	30	100.00

Mean = 2.63

Mean = 2.80

SD = 1.04

SD = 1.12

The above table revealed that nearly half (49.34 per cent) of the copra unit owners had low level of social participation followed by medium (33.33 per cent) and high (17.33 per cent) respectively. Majority of oil mill owners (60.00 per cent) belonged to low level of social participation followed by high (23.33 per cent) and medium (16.67 per cent).

Poor involvement of entrepreneurs in social activities might be the reason for low level of social participation in both categories of respondents.

4.1.7 Extension Orientation

Table 7. Distribution of the respondents according to their extension orientation

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1	Low	33	44.00	14	46.67
2	Medium	24	32.00	9	30.00
3	High	18	24.00	7	23.33
	Total	75	100.00	30	100.00

Mean = 5.03
SD = 1.69

Mean = 6.13
SD = 1.35

It is seen from Table 7 that 44.00 per cent of copra unit owners had low level of extension orientation followed by medium (32.00 per cent) and high (24.00 per cent). Whereas among coconut oil mill owners, 46.67 per cent had low level of extension orientation, followed by medium (30.00 per cent) and low (23.33 per cent).

Due to their low level of social participation, they are not contacting extension agency and are not participating in various extension activities. This might be the reason for the low to medium level of extension orientation.

4.1.8 Level of aspiration

Table 8. Distribution of the respondents according to their level of aspiration

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1	Low	20	26.67	4	13.33
2	Medium	37	49.33	20	66.67
3	High	18	24.00	6	20.00
	Total	75	100.00	30	100.00
		Mean = 16.28 SD = 3.84		Mean = 17.53 SD = 3.54	

It is observed from that Table 8 that nearly half (49.33 per cent) belonged to the middle level of aspiration followed by low (26.67 per cent) and high (24.00 per cent) among copra unit owner's unit owners. In case of coconut oil mill owners 66.67 per cent of the respondents belonged to the medium level category followed by high (20.00 per cent) and low level (13.33 per cent).

High level of aspiration is a positive and desirable trait of an entrepreneur. Hence the higher distribution of respondents in the medium category in both copra unit owners group and coconut oil mill owners group is a healthy sign.

4.1.9 Attitude towards self employment

Table 9. Distribution of respondents according to their attitude towards self employment

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1	Low	15	20.00	3	10.00
2	Medium	41	54.67	21	70.00
3	High	19	25.33	6	20.00
	Total	75	100.00	30	100.00

Mean = 5.43
SD = 1.59

Mean = 6.13
SD = 1.35

It is seen from Table 9 that 54.67 per cent of copra unit owners had medium level of attitude towards self employment followed by high (25.33 per cent) and low (20.00 per cent) level. Whereas among coconut oil mill owners 70.00 per cent of respondents belonged to medium category with respect to level of attitude towards self employment followed by high (20.00 per cent) and low (10.00 per cent) category.

Even though Kerala is a state with high literacy rate, the percentage of unemployment is high. The only alternative for income generation is to take up self-employment and that too with the easily available resources. Kerala, the land of coconut, provides rich opportunity to start copra units and coconut oil mill units with less investment using existing facilities. This might be the reason for the medium level of attitude towards self-employment among the respondents.



4.1.10 Economic motivation

Table 10. Distribution of the respondents according to their economic motivation

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1	Low	11	14.67	8	26.67
2	Medium	33	44.00	13	43.33
3	High	31	41.33	9	30.00
	Total	75	100.00	30	100.00

Mean = 12.08
SD = 2.92

Mean = 14.80
SD = 2.38

Majority of the copra unit owners (44.00 per cent) belonged to the medium level of economic motivation followed by high (41.33 per cent) and low (14.67 per cent). Whereas in the case of coconut oil mill owners, 43.33 per cent of respondents belonged to medium level of economic motivation followed by high (30.00 per cent) and low (26.67 per cent) level. The Keralites are having habitual consumption of coconut oil in their daily diets. So demand of the coconut oil is high. This might have motivated the coconut oil based unit owners to maximize their returns from available resources.

4.1.11 Self reliance

Table 11. Distribution of the respondents according to their self reliance

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1	Low	22	29.33	6	20.00
2	Medium	32	42.67	15	50.00
3	High	21	28.00	9	30.00
	Total	75	100.00	30	100.00

Mean = 3.08

SD = 1.06

Mean = 3.30

SD = 1.29

Majority of the copra unit owners (42.67 per cent) had medium level self reliance, followed low by (29.33 per cent) and high (28.00 per cent) level of self reliance. In the case of coconut oil mill owners, 50.00 per cent had medium level of self reliance followed by high (30.00 per cent) and low (20.00 per cent) level of self reliance.

An entrepreneur has the urge to capitalize his technical skills himself than working for others. He feels that his destiny is his own making. The pride of being a lord of one's own destiny essentially prompt a prospective entrepreneur to venture into an enterprise. Therefore, self-reliance is a desirable trait in a prospective entrepreneur.

4.1.12 Knowledge about value added products

Table 12. Distribution of the respondents according to their knowledge

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1	Low	46	61.34	13	43.33
2	Medium	25	33.33	9	30.00
3	High	4	5.33	8	26.67
	Total	75	100.00	30	100.00

Mean = 4.37

SD = 1.19

Mean = 3.23

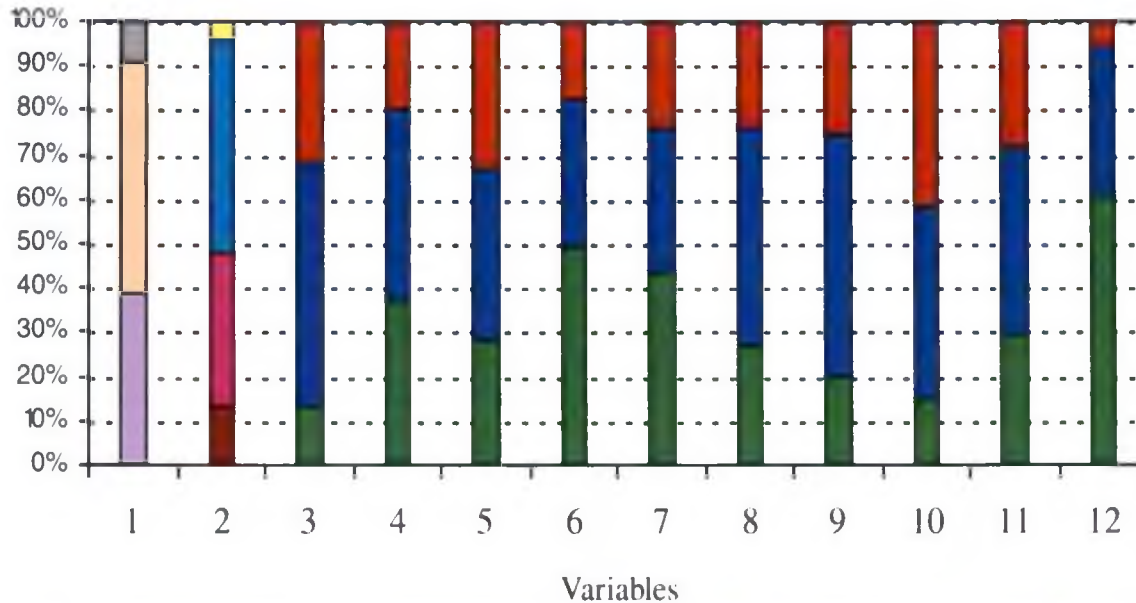
SD = 1.25

It is seen from the Table 12 that majority of the copra unit owners (61.33 per cent) belongs to the low category with respect to knowledge about value added products, followed by medium (33.33 per cent) and low (5.34 per cent). In case of coconut oil mill owners, 43.33 per cent belonged to low level of knowledge about the value added products followed by medium (30.00 per cent) and high (26.67 percent).

The low level of social participation and mass media exposure might be the reasons for low level of knowledge about value added products.

4.2. ENTREPRENEURIAL BEHAVIOUR OF ENTREPRENEURS.

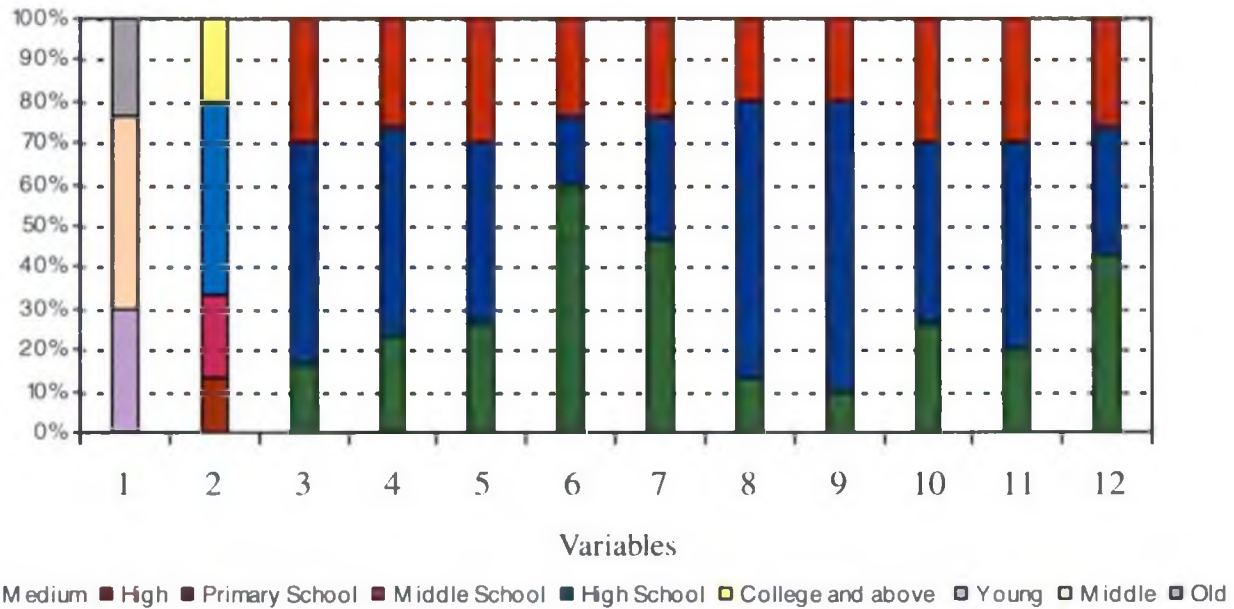
The respondents of the study were classified into low, medium and high category based on their entrepreneurial behaviour index and these are presented in Table 13.



■ Low ■ Medium ■ High ■ Primary School ■ Middle School ■ High School ■ College and above ■ Young ■ Middle ■ Old

1 – Age, 2 – Education, 3 – Experience in enterprise, 4 – Annual income, 5 – Mass media exposure, 6 – Social participation, 7 – Extension orientation, 8 – Level of aspiration, 9 – Attitude towards self employment, 10 – Economic motivation, 11 – Self reliance, 12 – Knowledge about value added products

Fig. 3. Profile characteristics of copra unit owners



1 - Age, 2 - Education, 3 - Experience in enterprise, 4 - Annual income, 5 - Mass media exposure, 6 - Social participation, 7 - Extension orientation, 8 - Level of aspiration, 9 - Attitude towards self employment, 10 - Economic motivation, 11 - Self reliance, 12 - Knowledge about value added products

Fig. 4. Profile characteristics of coconut oil mill owners

Table 13. Distribution of the respondents according to their entrepreneurial behaviour Index

Sl. No.	Category	Copra unit owners (n=75)		Coconut oil mill owners (n=30)	
		Frequency	Percentage	Frequency	Percentage
1	Low	25	16.67	9	30.00
2	Medium	27	60.00	11	36.67
3	High	23	23.33	10	33.33
	Total	75	100.00	30	100.00
		Mean = 17.54 SD = 2.30		Mean = 15.89 SD = 2.20	

Majority of copra unit owners (60.00 per cent) belonged to medium level of entrepreneurial behaviour followed by high (23.33 per cent) and low (16.67 per cent). In case of coconut oil mill owners, 36.67 percent had medium level of entrepreneurial behaviour, followed by high (33.33 per cent) and low (30.00 per cent). (Fig 5 & 6)

In the case of copra unit owners, majority belonged to medium category, whereas in the case of coconut oil mill owners, the distribution was almost equal in all three categories.

The traits as economic motivation, attitude towards self employment, level of aspiration are found to be medium among the copra unit owners. This is reflected in their entrepreneurial behaviour also.

There was equidistribution of respondents in three categories with respect to economic motivation and extension orientation in the case of oil mill owners though distribution was high in medium group with respect to attitude towards self employment. This probably might be the reason for obtaining equal distribution of respondents in all three categories in the case of oil mill owners.

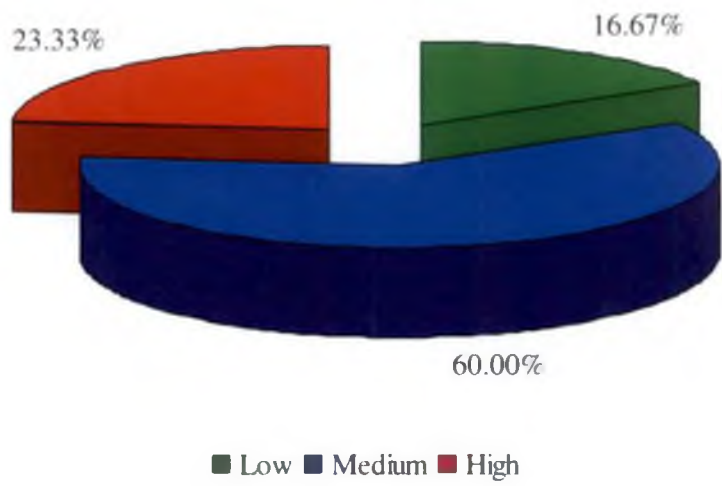


Fig. 5. Entrepreneurial behaviour of copra unit owners

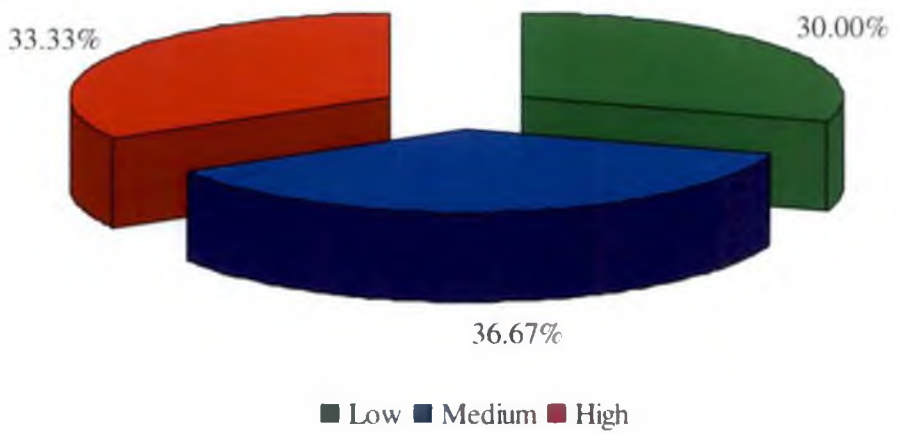


Fig. 6. Entrepreneurial behaviour of coconut mill owners

4.3 RELATIONSHIP BETWEEN PROFILE CHARACTERISTICS OF ENTREPRENEURS AND ENTREPRENEURIAL BEHAVIOUR

4.3.1 Relationship between entrepreneurial behaviour and profile characteristics of copra unit owners and coconut oil mill owners

The relationship between entrepreneurial behaviour and the profile characteristics of copra units and coconut oil mill owners was studied using correlation analysis. The results are furnished in Table 14. It is also presented in Fig (7 & 8).

Out of the twelve independent variables, eight variables namely education, annual income from enterprise, mass media exposure, attitude towards self employment, economic motivation, self reliance and knowledge about value added products were significantly and positively associated with entrepreneurial behaviour of the copra unit owners. Whereas age, experience in enterprise, social participation, extension orientation had no relationship with entrepreneurial behaviour of copra unit owners.

Education , mass media exposure, level of aspiration, attitude towards self employment, economic motivation, self reliance and knowledge about value added products had significant and positive relationship with entrepreneurial behaviour of coconut oil mill owners. Whereas age, experience in enterprise, annual income, social participation, extension orientation had no relationship with entrepreneurial behaviour of coconut oil mill owners.

Age and experience in enterprise had no relationship with entrepreneurial behaviour. Copra making being a traditional occupation in this region, the respondents seem to learn practices from their relatives without relevance to the number of years or experience in enterprise. Hence the result. In the light of above discussion, the hypothesis set for the study that there

would be no significant relationship between age, experience in enterprise and their entrepreneurial behaviour was accepted.

Education was found to be positively and significantly related entrepreneurial behaviour of the respondents in both case. In Kerala, up to primary level of education is compulsory and free and dropouts will occur only after primary level. Majority of the respondents were having education level of high school. The above fact has sufficient evidence that level of educational background ensures entrepreneurial function and plays a significant role in entrepreneurship formation. This finding is in conformity with the findings of Nandapurkar (1982), Ragavacharyulu (1983), Pandya (1996), Thenamudha (1996), Reddy (2003), and Subramaneswari and Reddy (2003). In the light of above discussion, the hypothesis set for the study that there would be no significant relationship between education and their entrepreneurial behaviour was rejected.

Annual income was found to be positively and significantly related with entrepreneurial behaviour of copra unit owners. More the income derived, more were they motivated to expand their enterprise. High income supports an entrepreneur to bear risk in his occupational venture. This finding is in conformity with the findings of Porchezian (1991), Pandya (1996), Thenamudha (1996), Reddy (2003). In the light of above discussion, the hypothesis set for the study that there would be no significant relationship between annual income and entrepreneurial behaviour was rejected. In the case of oil mill owners, though non-significant relationship was observed the trend is in the positive direction.

Mass media exposure is significantly associated with entrepreneurial behaviour and copra unit owners and oil mill owners. This finding is in conformity with the findings of Raghavacharyalu (1983) and Sivaprasad (1997) who reported positive relationship between mass media exposure and entrepreneurial behaviour. Mass media exposure gives an opportunity

for the entrepreneur to know about various opportunities existing in the industry and also improves their market awareness. These indirectly influence their entrepreneurial behaviour. In the light of above discussion, the hypothesis set for the study that there would be no significant relationship between mass media exposure and their entrepreneurial behaviour was rejected.

Social participation, extension orientation had no relationship with entrepreneurial behaviour in both the case of copra unit owners and oil mill owners. An examining the 'r' values (Table 14) it is evident that though non significant, the values obtained are relatively high and positive both in the case of social participation and extension orientation. A self employed person is his own master. Patience and qualities like impressing and getting along well with people, pleasant disposition and a sociable temperament are golden assets needed in an entrepreneur. Entrepreneurship being a people intensive activity, without good socialization, it will be very difficult for an entrepreneur to succeed. Running an enterprise necessitates the entrepreneur to contact and maintain relationship with many people and institutions. This might be the probable reason for obtaining such a result. In the light of above discussion, the hypothesis set for the study that there would be no significant relationship between social participation, extension orientation and their entrepreneurial behaviour was accepted.

Level of aspiration was found to have significant relationship with entrepreneurial behaviour of copra unit owners and oil mill owners. Those people with high level of aspiration will take risk in starting an enterprise of their own. This is due to the fact that they are economically motivated and will have an urge to excel others and try to acquire more knowledge. This result in line with the research conducted by S.I.E.T (1994) and Jayalekshmi (1996). In the light of above discussion, the hypothesis set for the study that there would be no significant relationship between level of aspiration and their entrepreneurial behaviour was rejected.

Table 14. Relationship between profile characteristics of copra and entrepreneurial behaviour

Variable No.	Profile characteristics	Correlation coefficient (r)	
		Copra unit owners (n= 75)	Coconut oil mill owners (n= 30)
1	Age	0.083 ^{NS}	0.145 ^{NS}
2	Education	0.453**	0.488**
3	Experience in enterprise	0.081 ^{NS}	0.112 ^{NS}
4	Annual income	0.298*	0.299 ^{NS}
5	Mass media exposure	0.261*	0.478**
6	Social participation	0.208 ^{NS}	0.321 ^{NS}
7	Extension orientation	0.221 ^{NS}	0.246 ^{NS}
8	Level of Aspiration	0.266*	0.662**
9	Attitude towards self employment	0.359**	0.396*
10	Economic motivation	0.493**	0.453*
11	Self reliance	0.235*	0.381*
12	Knowledge about value added products	0.249*	0.428*

* Significant at 5 per cent level,

** Significant at 1 per cent level

NS – Non significant

A positive and significant relationship was observed between attitude of self-employment and entrepreneurial behaviour of copra unit owners and oil mill owners. The significant positive relationship obtained is logical because a favourable mental disposition towards self employment necessarily improves the entrepreneurial behaviour of a person. Unless one has a favourable attitude towards the positive aspects of self employment over and above, its negative aspect his entrepreneurial behaviour will naturally be lower. Another reason might be due to the fact that these enterprises are suitable for rural industrializations as they make use of skills and resources. Rural industries help the growth of entrepreneurship in rural areas. This finding derives support from the research results reported by Pradeepkumar (1993), Jayalekshmi (1996). In the light of above discussion, the hypothesis set for the study that there would be no significant relationship between attitude towards self employment and their entrepreneurial behaviour was rejected.

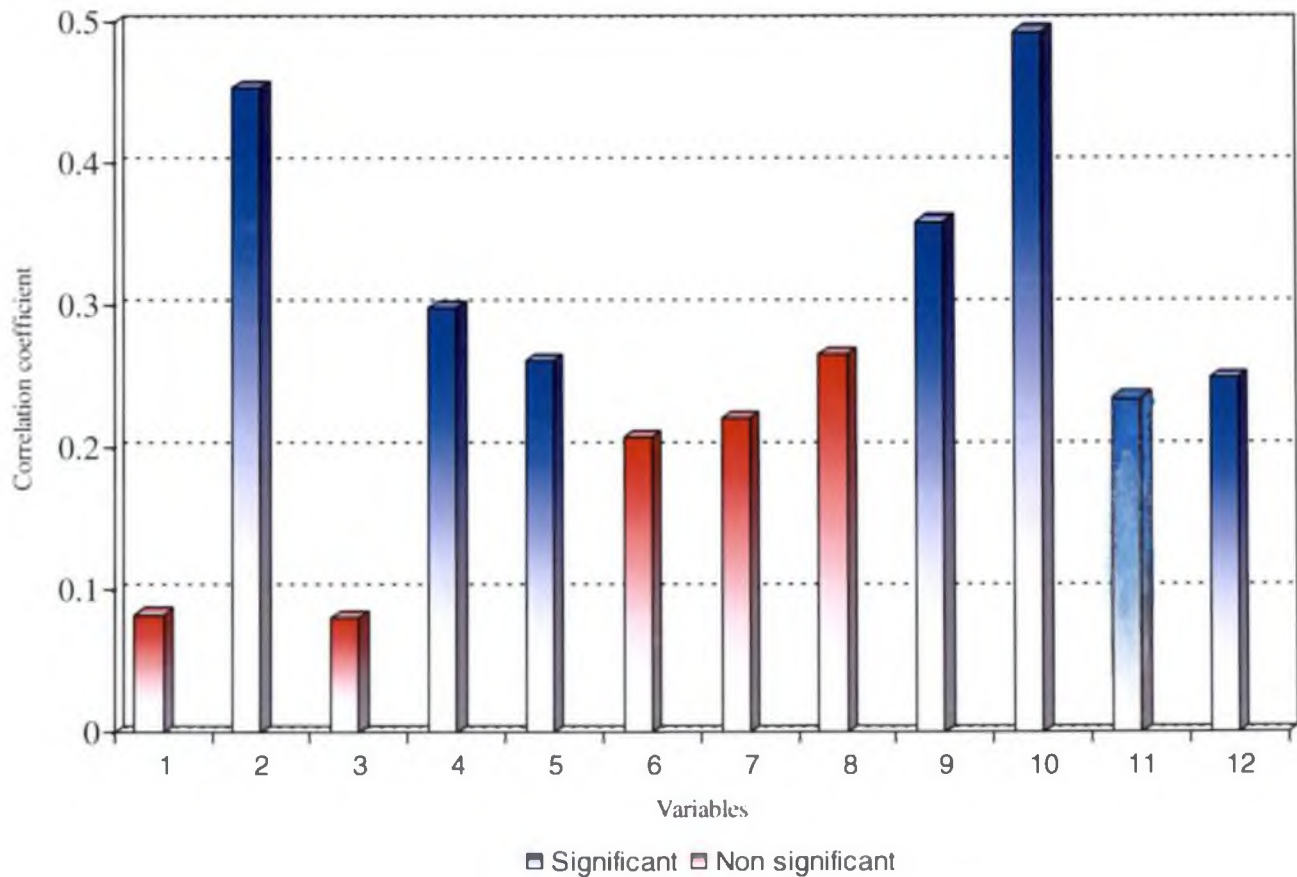
A positive and significant relationship between economic motivation and entrepreneurial behaviour was observed in both the categories. The entrepreneur is an economic man who tries to maximize his profit by using available resources. The main aim of an entrepreneur is to effectively utilize the physical and financial resources for making more wealth, income and employment. Moreover economic gains might be the most important goal for starting an enterprise. The present findings are in conformity with the findings of S.I.E.T(1974), Perumal *et. al* (1990) and Porchezian (1991). In the light of above discussion, the hypothesis set for the study that there would be no significant relationship between economic motivation and their entrepreneurial behaviour was rejected.

In the case of self reliance, positive relationship was observed with entrepreneurial behaviour of copra unit owners and oil mill owners. An

entrepreneur expects himself to be the master of time and space around him and feel responsible for his productivity. He likes to be his own master and has sufficient confidence in him to take up new ventures. The entrepreneurs tend to believe strongly in themselves and their activities to achieve the goals they set. They also believe that events in their lives are mainly self determined that they have a major influence on their personal destinations and hence little belief in fate. The study reaffirms the necessity of self reliance for an entrepreneur. The finding is in line with the results obtained by Porchezian (1991) and Thenamudha (1996) who observed positive and significant relation between entrepreneurial behaviour. In the light of above discussion, the hypothesis set for the study that there would be no significant relationship between self reliance and their entrepreneurial behaviour was rejected.

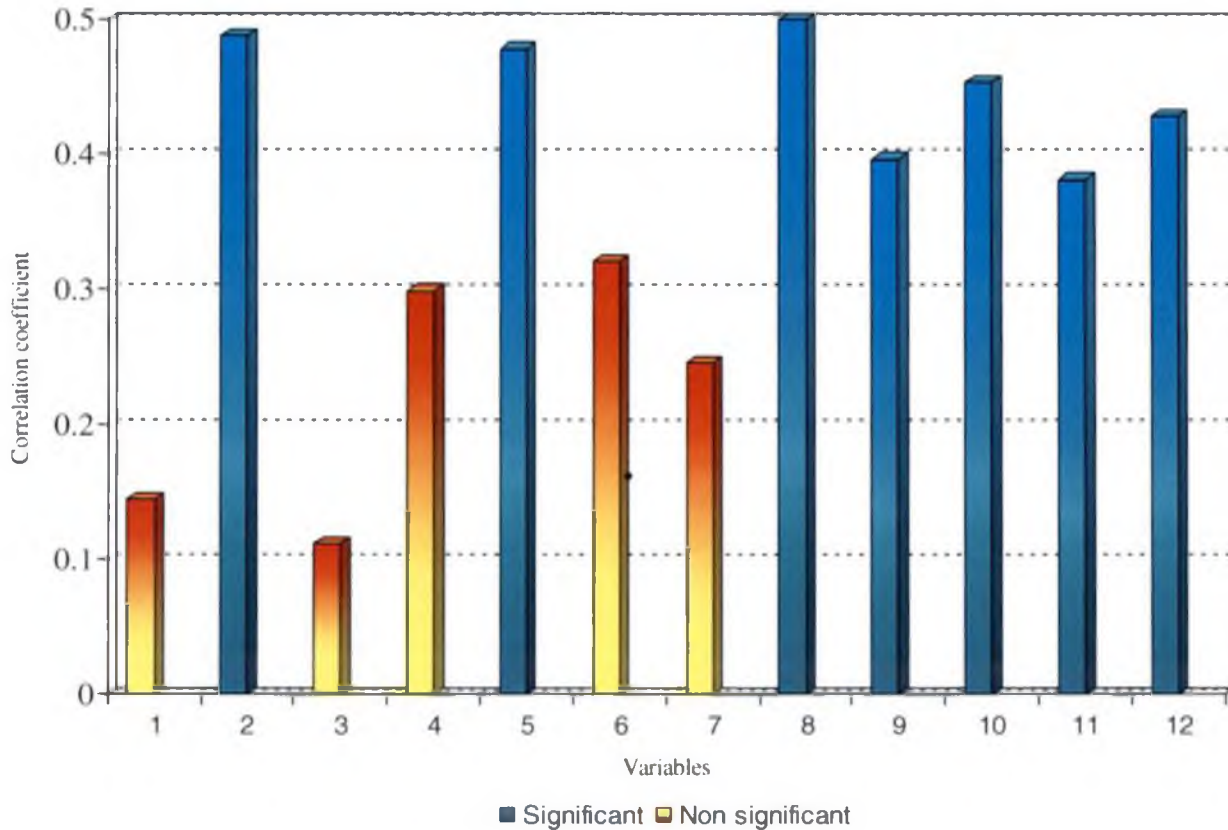
Knowledge about value added products had significant relationship with entrepreneurial behaviour. Knowledge prepares an entrepreneur to take risk. It will also help him better in managing the resources efficiently. Case studies done by Chandra (1991) on successful entrepreneurs reported that many of them considered technical knowledge as important for their success. Knowledge about value added products indicates that the respondents are keeping in touch with the developments in coconut industry, thereby improving their technical competency. Technical competency is definitely an asset for an entrepreneur because it places him in a better position to convert natural resources into goods and services more beneficial to the society in general and consumer in particular.

In the light of above discussion, the hypothesis set for the study that there would be no significant relationship between knowledge about value added products and their entrepreneurial behaviour was rejected.



1 – Age, 2 – Education, 3 – Experience in enterprise, 4 – Annual income, 5 – Mass media exposure, 6 – Social participation, 7 – Extension orientation, 8 – Level of aspiration, 9 – Attitude towards self employment, 10 – Economic motivation, 11 – Self reliance, 12 – Knowledge about value added products

Fig. 7. Relationship between the characteristics of copra unit owners and entrepreneurial behaviour



1 – Age, 2 – Education, 3 – Experience in enterprise, 4 – Annual income, 5 – Mass media exposure, 6 – Social participation, 7 – Extension orientation, 8 – Level of aspiration, 9 – Attitude towards self employment, 10 – Economic motivation, 11 – Self reliance, 12 – Knowledge about value added products

Fig. 8. Relationship between the characteristics of coconut mill owners and entrepreneurial behaviour

4.4. ECONOMIC DIMENSIONS OF ENTERPRISE

4.4.1. Economic analysis of copra unit owners

4.4.1.1 Method of purchasing raw material

Table 15. Distribution of copra unit owners based on their method of purchasing raw material

Sl. No.	Method of purchasing raw material	Number	Percentage
1.	Unhusked nuts	29	38.67
2.	Vettithookum (broken halves of dehusked nuts)	42	56.00
3.	Unhusked and Vettithookum	4	5.33
	Total	75	100.00

From table 15 it is clear that 56 per cent of the respondents are procuring coconut as Vettithookum and about followed by 39.00 per cent as unhusked nuts. Only 5.33 per cent procure as unhusked nuts and vettithookum. Problem of setting large space required for safe storage of unhusked nuts and husks after dehusking, problems due to huge labour involvement in dehusking are the reasons for the reluctance on the part of copra unit owner to purchase broken halves of dehusked nuts (Vettithookum) (Fig.9).

4.4.1.2. Method of drying

Table 16. Distribution of copra unit owners based on their method of drying

Sl. No	Method of drying	Number	Percentage
1.	Sun drying	49	65.33
2.	Copra drier	26	34.67
	Total	75	100.00

It is evident from the Table 16 that majority of the respondents (65.33 per cent) followed method of sun drying and the rest (34.67 per cent) used copra drier. (Fig .10) Sun drying is the most common and cheapest method drying practiced in the study area. That might be the reason for higher distribution of respondents under sun drying. In copra drier, splitted nuts fed into drying chamber of copra drier& hot air is generated by burning coconut shell in a separate system and blown into drying chamber by means of blower (plate 1,2,& 3). Scooping done after drying process is over (plate 4 & 5).

4.4.1.3. Source of credit

Table 17. Distribution of copra unit owners based on source of credit

Sl. No.	Source of finance	No. of entrepreneurs	Percentage
1	Non institutional sources	39	52.00
2	Institutional sources	36	48.00
	Total	75	100

It is seen from the Table 17 that about 52.00 per cent of copra unit owners availed their credit from non-institutional source (money lenders,

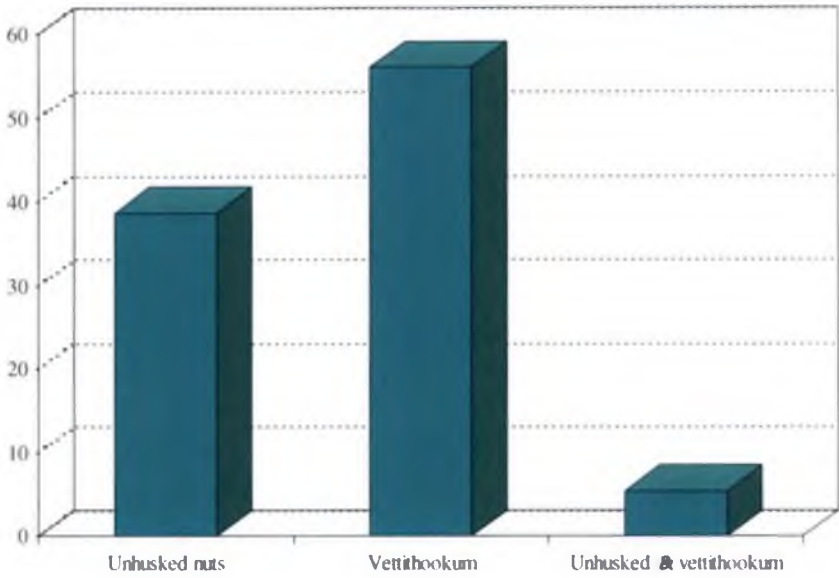


Fig. 9. Distribution of copra unit owners based on their method of purchasing raw material

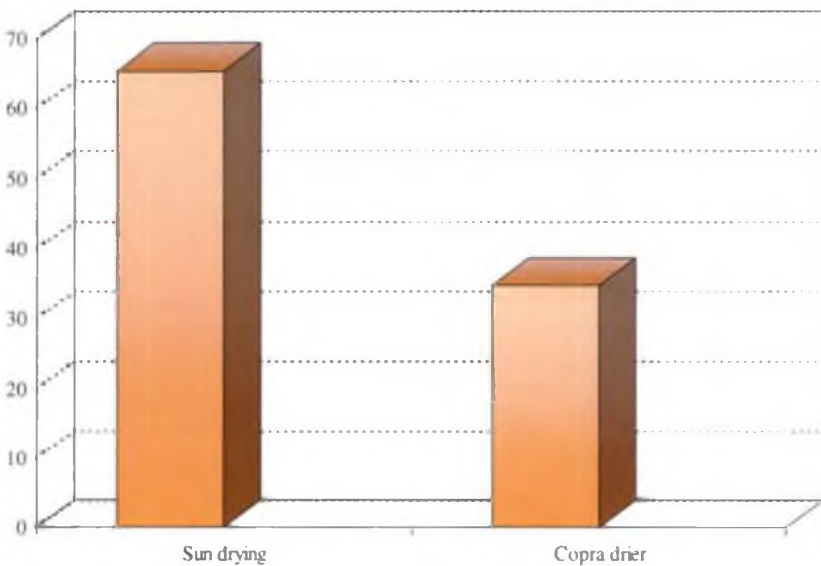


Fig. 10. Distribution of copra unit owners based on their method of drying

borrowing from relatives and friends), followed by 48.00 per cent from institutional sources like cooperative societies. Majority of the respondents followed sun drying, which does not require very large establishment cost to start and that may be the reasons for higher distribution of respondents in non-institutional sources.

4.4.1.4 Cost and returns of copra making unit

The cost and returns of copra making per unit per year are presented in the Table 18. The total quantity of copra produced in a year was 314.19 quintal, with the cost of production of Rs. 954560.21. It was observed that variable expenses were the main cost and it accounted for about 99 per cent of total cost. Among variable expenses, the price of coconut, labour charges, transport charges were the major items constituting 54.22 per cent, 15.92 per cent and 13.17 per cent respectively of the total cost. The total return obtained was Rs.993795.65 including a return of 101183.00 from products, husk and shell. The net return obtained was Rs.140418.14 per year.

Table 18. Cost and Returns of Copra making per year

Sl.No	Items	Amount (Rs)	Percentage
I	Fixed cost		
i)	Depreciation on building	974.42	0.10
ii)	Depreciation on machinery and equipments	1850.88	0.19
iii)	Depreciation on tarpaulin	254.09	0.03
iv)	Interest on fixed cost	7760.00	0.81
v)	Total fixed cost	10839.39	1.13



Plate 1. Splitting of dehusked coconuts



Plate 2. Splitted nuts fed into drying chamber of copra drier



Plate 3. Copra drier



Plate 4. Scooping operations done by casual labourer

II	Variable cost		
i)	Price of coconut	517587.00	54.22
ii)	Labour charges	151972.50	15.92
iii)	Fuel charges	39645.00	4.15
iv)	Electricity charges	25900.00	2.71
v)	Transport charges	125677.60	13.17
vi)	Loan repayment	17500.00	1.84
vii)	Maintenance and repair	1200.00	0.12
viii)	Miscellaneous charges	2500. 00	0.27
ix)	Interest on working capital	61738. 72	6.47
	Total variable cost	943720.82	98.87
III	Total cost (fixed cost and Variable cost)	954560.21	100.00
IV	Return		
i)	Quantity of copra produced	314.19 quintal	
ii)	Value of Copra @ 3163 By products	Rs.993795.65	
iii)	Value of by products	Rs.101183.00	
V	Total Return	Rs.1094978.65	
VI	Net Return	Rs.140418.44	

4.4.1.5 Economic and financial analysis of copra unit

Table 19. Economic and Financial analysis of copra making unit

Sl. No.	Items	Ratio / Amount
1	Cost of production per quintal	Rs. 2716.11
2	Profit per quintal	Rs .446.88
3	Benefit cost ratio	1.15
4	Current ratio	62.57
5	Net capital ratio	18.49

It is observed from the Table 19 that the estimated cost of production and profits per quintal of copra were Rs. 2716.11 and Rs. 446.89 respectively. The benefit cost ratio was 1.15 indicating profitability of copra making units. A current ratio more than one indicates that the entrepreneur is capable of meeting immediate financial obligation. The very high current ratio of 62.57 indicates the idling and under utilization of assets. Net capital ratio of 18.49 is also very high revealing the sound long-term financial position of the copra enterprise.

4.4.2. Economic analysis of Coconut oil milling unit

4.4.2.1 Method of oil milling

Table 20. Distribution of coconut oil mill owners based on their method of milling

Sl. No.	Milling units	Number	Percentage
1	Mechanical rotary chekku	17	56.67
2	Oil expeller	13	43.33
	Total	30	100.00

It is seen from the Table 20 that majority (56.67 per cent) of respondents are extracting coconut oil using mechanical rotary chekku. Only 43.33 per cent of oil mill units had oil expeller for extracting coconut oil (Fig,11). Oil extraction process involves cutting of copra into small pieces by means of copra cutter and fed into mechanical rotary chekku and oil expeller for extracting coconut oil. (see Plate 6,7, &8)

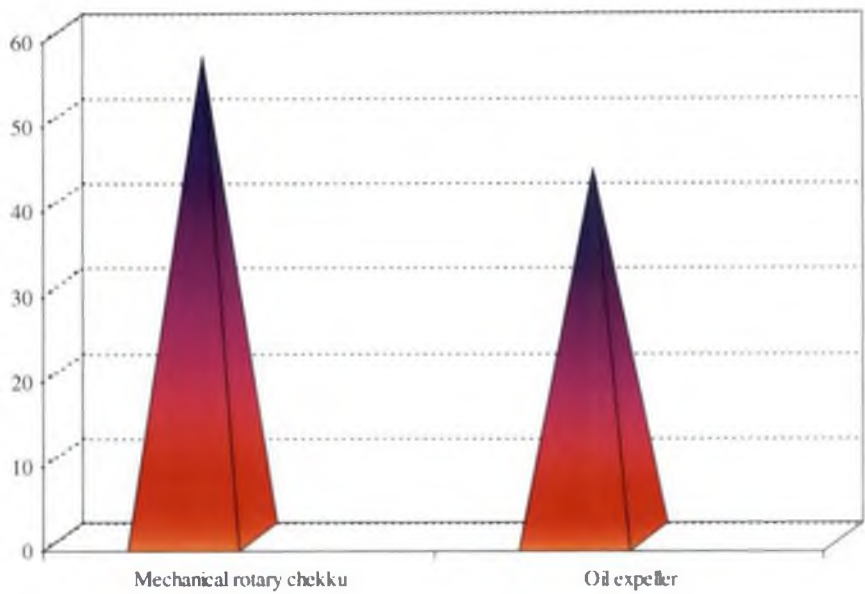


Fig. 11. Distribution of copra unit owners based on their method of milling



Plate 5. Sun drying



Plate 6. Copra cutter



Plate 7. Coconut oil extraction by mechanical rotary chekku



Plate 8. Coconut oil extraction by coconut oil expeller

4.4.2.2 Source of credit

Table 21. Distribution of coconut oil mill owners based on source of credit

Sl. No.	Source of finance	No. of entrepreneurs	% to the total
1	Institutional sources	22	73.33
2	Non institutional sources	8	26.67
	Total	30	100.00

About 73 per cent of selected respondents availed their credit from institutional sources like Coopertives, Karshaka Sakakarna bank and Federal bank (Table 21). About 27 per cent from non- institutional sources. Starting a coconut oil milling requires high initial investment when compared to copra units and so more members of mill owners are depending of institutional agencies for finance.

4.4.2.3 Cost and Returns of Coconut oil milling unit

The total cost of production of coconut oil produced in a year was 381.22 quintal with the cost of production of Rs.2094429.78 (Table 22). It was observed that variable expenses were main cost and it accounted for about 99 per cent of total cost. Among variable expenses, the price of copra, interest on working capital, electricity charges were the major items constituting 88.57 per cent, 6.49 per cent and 1.26 per cent respectively of the total cost. The total return obtained was Rs. 2430831.46 including the return of Rs. 202600.56 from oil cake. The net return obtained was Rs. 336401.68.

Table 22. Cost and Returns of Coconut oil milling per year

Sl. No.	Items	Amount (Rs)	Percentage
I	Fixed cost		
i)	Depreciation on building	1239.78	0.05
ii)	Depreciation on machinery and equipments	3255.10	0.16
iii)	Interest on fixed cost	12669.60	0.60
iv)	Total fixed cost	17164.48	0.81
II	Variable cost		
i)	Price of copra	1855099.50	88.58
ii)	Labour charges	19800.00	0.94
iii)	Electricity charges	26392.50	1.27
iv)	Oil and lubricants	2932.50	0.14
v)	Transport charges	12505.00	0.60
vi)	Loan repayment	21940.00	1.05
vii)	Miscellaneous charges	800.00	0.03
viii)	Interest on working capital	135895.86	6.49
	Total variable cost	2077265.30	99.19
III	Total cost (fixed cost and Variable cost)	2094429.78	100.00
IV	Return		
i)	Value of Coconut oil produced	381.22 quintal	
ii)	Coconut oil @ 5845/Quintal	Rs.2228230.90	
iii)	Oil cake @1016/ Quintal	Rs 202600.56	
V	Total Return	Rs.2430831.46	
VI	Net Return	Rs. 336401.68	

4.4.2.4 Economic and financial Analysis of Coconut oil milling

Table 23. Economic and financial analysis of coconut oil milling unit

Sl. No.	Items	Ratio / Amount
1	Cost of production per quintal	Rs. 4962.56
2	Profit per quintal	Rs. 882.43
3	Benefit cost ratio	1.16
4	Current ratio	85.71
5	Net capital ratio	27.52

It was observed from Table 23 that the estimated cost of production and profit per quintal of coconut oil was Rs. 4962.56 and Rs. 882.43 respectively. The benefit cost ratio was 1.16 indicating the profitability of coconut oil milling units. The current ratio and net capital ratio were 85.71 and 27.52 respectively. The same reasons attributed in the case of copra unit owners are reluctant in this context.

4.5 CONSTRAINTS EXPERIENCED BY THE ENTREPRENEURS

4.5.1 Constraints experienced by Coconut oil- based unit –owners

Constraints faced by copra unit owners revealed that the most important constraint faced was shortage of raw material with a score of 665 (Table 24). Instability of the prices, high labour charges, lack of infrastructure facilities were ranked second, third and fourth with the scores of 665, 517, 515 respectively followed by lack of organized marketing and Higher scrutiny at the hands of banks scores of 439,434, 292 respectively. Competition from low priced oils and import of coconut oil ranked 7 and 8.

The results in the Table 25 reveals that the shortage of raw material instability of prices, competition from low priced oils, were ranked first, second and third with scores of 266, 254, 234 respectively, followed by lack of organized marketing, high labour charges, import of coconut oil, lack of infrastructure facilities, and scrutiny at the hands of bank were ranked in a descending order.

Supply and demand for coconut is mainly due to seasonal variations in coconut production might cause price fluctuations and shortage of raw material. The copra and coconut oil units either suspended or stopped production due to shortage of raw material. Supply of raw material in continuous basis is main problem in small-scale industries. The majority of copra units and coconut oil mills were under utilizing their capacity due to shortage of raw material.

Instability of prices is the most serious constraint which frustrating the copra and coconut oil producers forever. Since, processing of coconut by sun drying and other methods produces copra and coconut oil is extracted from copra, the market prices of these commodities should invariably reflect casual relationships. It is normatively assumed that sixty three per cent of the coconut oil price would be the price of copra, 35 per cent would be the price of cake and two per cent as the balance. The problem with this system of price determination is that it does not provide for situations where prices of copra could rise due to supply – demand imbalance for copra. In other words, it reduces the bargaining potential of copra producers viz- a -viz coconut oil mills.

Labour charges are the major item in the variable cost explained elsewhere. Due to the labour intensive nature and high wage rate for labour, the copra unit owners ranked high labour charges as third most constraint.

Table 24. Constraints experienced by Copra unit owners

(n = 75)

Sl. No.	Constraints	Rank	I	II	III	IV	V	VI	VII	VIII	IX	X	Total Score	Rank
		Score	9	8	7	6	5	4	3	2	1	0		
1	Shortage of raw material		68	4	3	0	0	0	0	0	0	0	665	I
2	Instability of prices		3	33	10	15	10	4	0	0	0	0	517	II
3	High labour charges		4	34	11	9	12	2	2	1	0	0	515	III
4	Lack of infrastructure facilities		2	4	37	17	9	6	9	1	0	0	439	IV
5	Lack of organized marketing		0	8	19	21	14	5	3	2	3	0	434	V
6	Facing higher recruiting at the hands of banks and other financial institutions		0	5	4	7	9	12	20	13	3	0	292	VI
7	Competition from low priced oils		0	3	5	6	6	9	13	28	5	0	245	VII
8	Import of coconut oil		0	0	1	8	0	17	12	18	16	3	211	VIII

Table 25. Constraints experienced by Coconut oil mill owners

(n = 30)

Sl. No.	Constraints	Rank	I	II	III	IV	V	VI	VII	VIII	IX	X	Total Score	Rank
		Score	9	8	7	6	5	4	3	2	1	0		
1	Shortage of raw materials		26	4	0	0	0	0	0	0	0	0	266	I
2	Instability of prices		19	6	5	0	0	0	0	0	0	0	254	II
3	Competition from low priced oils		14	4	7	3	1	1	0	0	0	0	234	III
4	Lack of organized marketing		9	10	3	7	1	0	0	0	0	0	225	IV
5	High labour charge		0	8	9	4	6	2	1	0	0	0	192	V
6	Import of coconut oil		0	0	2	10	8	8	2	0	0	0	152	VI
7	Lack of infrastructure facilities		0	2	4	2	5	4	11	2	0	0	132	VII
8	Facing higher recruiting at the hands of banks and other financial institutions		0	0	0	2	0	3	18	0	0	7	78	VIII

Coconut oil price always shows fluctuating trends. Majority of copra owners have no proper storing facilities and sell their products immediately to the market. In case of coconut oil mill owners, coconut oil is the commodity that will sell in very next day. That might be reason that oil mill owners ranked lack of infrastructure facilities as seventh constraint.

The unorganized copra and coconut oil mill owners exploited by the traders and they take the advantages of falling price situation of copra and coconut and sell it when higher market price situation.

Import of palm oil and vegetable oils from other countries has resulted in competitiveness in terms of price of coconut oil, which finally leads to severe loss to copra - coconut enterprises.

4.6 SUGGESTIONS TO RESOLVE CONSTRAINTS

Suggestions are made in consultation with respondents, scientists and based on review of literature.

- (i) Current information on market prices should be made available to the copra producers. So that they can make necessary adjustments.
- (ii) To protect the copra producers from price fluctuations, the cooperatives may be encouraged to procure copra at announced Minimum Support Price (MNP)
- (iii) Increasing the production and productivity of coconut gardens by adopting new technologies.
- (iv) Establishment of warehouses at different places accessible to copra and oil producers will improve the bargaining power of copra by increasing their capacity to store their products for one to two months at a time. It also facilitates obtaining bridge

loans from financial institutions using the warehouse receipt. This, in turn, could correct the trend of determination of copra and cake prices by coconut oil prices.

- (v) Coconut Development Board should make more funds for assisting Co-operatives in setting up driers in Kerala where there is longer rainy season, to help increase copra production during rainy season when sun drying is not possible on all days.
- (vi) The market literacy programmes should be conducted for copra makers and oil millers in the local vernacular and should focus on reading spot and futures prices for coconut, copra and coconut oil, interpreting prices and strategies for storing and marketing products in the light of price movements.
- (vii) There is vast scope for establishing Integrated Coconut Processing units through vertical integration of copra and oil milling to enhance the profitability of the existing processing units. This provides backward linkage to the coconut producers.
- (viii) Coconut Development Board may initiate action to study the techno-economic viabilities of new processing technologies.
- (ix) There should be a closer interaction amongst the coconut processors, traders, research organizations and the government by way of organizing seminars, exhibitions, workshops and trade fairs for the overall growth of the coconut processing industry.
- (x) The Coconut Development Board may help copra and coconut oil mill units' owners, to visit other countries to study the latest technological developments.

4.7 IMPLICATIONS OF THE STUDY

The study brings to focus the entrepreneurial behaviour of coconut oil based unit owners and economic dimensions of enterprise which will help in developing appropriate technology, specifically train them and to promote their involvement in development and transfer of technology.

The constraints faced by the entrepreneurs seriously hinder the growth of coconut oil industry. In order to realize the immense potential, the industry needs to be reorganized after making a through appraisal of the situation. It is necessary to assess the existing wealth as also study the potential and capabilities of entrepreneur. There is a need to mobilize various sources, take up efforts of proper resource management, utilisation of new technologies and improve them taking into consideration the recent development, the vast modern knowledge base created and the changing environment.

4.8 SUGGESTIONS FOR FUTURE RESEARCH

- (i) For generalization of findings, similar studies could be conducted in other districts also.
- (ii) Multi-disciplinary research team must explore the prospects of entrepreneurs running coconut based industry, as it is one of the major agro- based industries in Kerala. A study could be conducted about entrepreneurial behaviour of coconut growers and their economic dimension would help for the development of coconut oil based industries.
- (iii) Extension strategies of government and non-government organization for promotion of entrepreneurs may be studied for their efficiency.

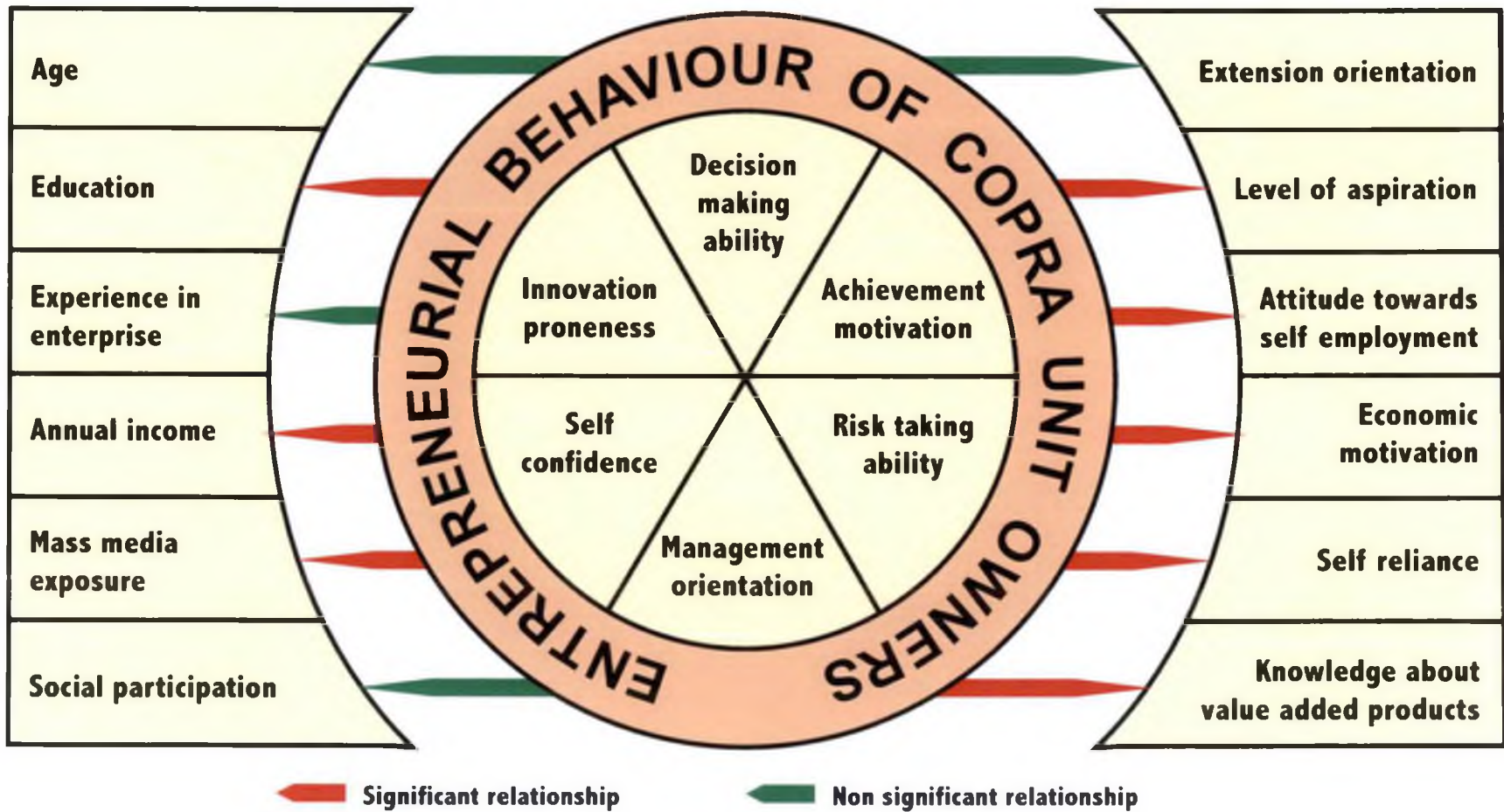


Fig. 12. Empirical model of Copra unit owners

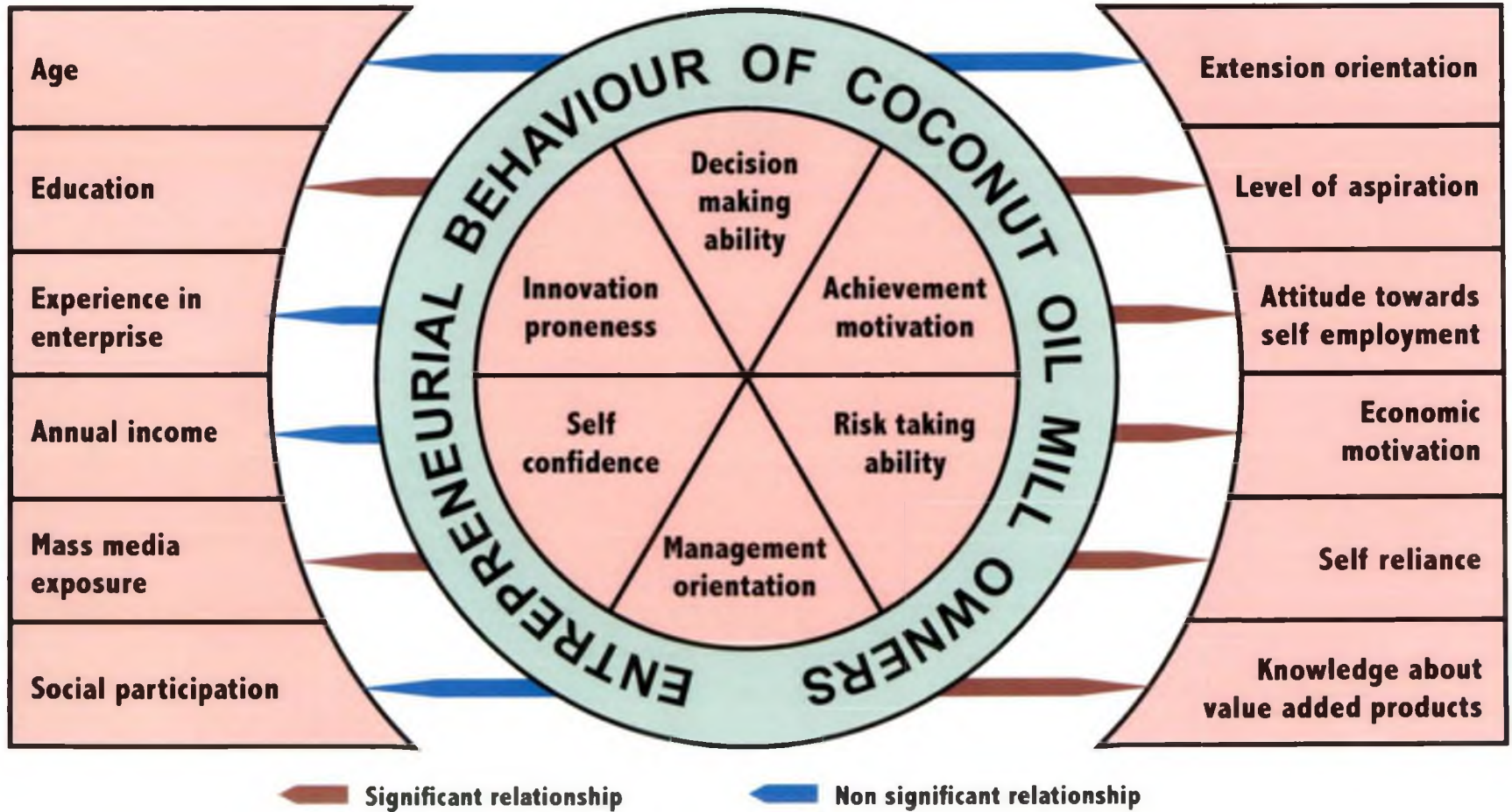


Fig. 13. Empirical model of Coconut oil mill owners

SUMMARY

5. SUMMARY

The study was undertaken to investigate the entrepreneurial behaviour of coconut oil based unit owners. This study aims to provide valuable information for planning and implementing new programmes in the field of coconut oil industry. The specific objectives of the study were :

1. To analyze the entrepreneurial behaviour of coconut oil based unit owners.
2. To study the profile characteristics of entrepreneurs.
3. To analyze the economic dimension of the enterprise.
4. To identify the constraints experienced by the entrepreneurs while undertaking the enterprise.

This study was confined to Thiruvananthapuram district in Kerala State. Three block panchayats namely, Pallichal, Pulimath and Parasala were purposively selected for the study. Respondents were chosen from two categories, namely entrepreneurs running oil mills and entrepreneurs running copra units. From each of the selected block Panchayats, ten entrepreneurs running oil mills were selected randomly. Twenty five respondents running copra units were randomly selected from each of the block Panchayat. Thus the total sample comprised of 105 with two groups of respondents.

Twelve independent variables were selected based on judges relevancy rating which included age, education, experience in enterprise,

annual income, mass media exposure, social participation,, extension orientation, level of aspiration, attitude towards self employment, economic motivation self reliance and knowledge about value added products. All these variables were quantified with the help of available measurement procedures. The dependent variable for the study was entrepreneurial behaviour. The relationship between the dependent variables and independent variables was studied using correlation analysis. Economics and financial analysis was done for both the categories of respondents with BCR, Current ratio, and Net capital ratio. Constraints while undertaking enterprise were also recorded as perceived by the entrepreneurs.

The data were collected using a pre-tested structured interview schedule prepared for the study and non-participant observation technique. Different statistical tools like mean, percentage analysis, and correlation analysis were used to analyse the data.

The salient findings are presented below.

1. The frequency distribution of profile characteristics of the copra unit owners revealed that majority of the respondents belonged to the middle aged group (52.00 per cent) with high school education (48.00 per cent) and had medium level of experience in enterprise (54.67 per cent), annual income (42.67 per cent), mass media exposure (38.67 per cent), level of aspiration (49.33 per cent), attitude towards self employment (54.67 per cent), economic motivation (44.00 per cent), self reliance (42.67 per cent). The respondents had low level of social participation (49.34 per cent), extension orientation (44.00 per cent) and knowledge about value added products (61.34 per cent).
2. Incase of coconut oil mill owners, also the frequency distribution of the profile characteristics provided similar results.

3. Majority of the respondents were in the middle aged group (46.67 per cent) with high school education (46.67 per cent) and had medium level of experience in enterprise (53.33 per cent), annual income (50.00 per cent), mass media exposure (43.33 per cent), level of aspiration (66.67 per cent), attitude towards self employment (70.00 per cent), economic motivation (43.33 per cent), self reliance (63.33 per cent). The majority of the coconut oil mill owners had low level of social participation (60.00 per cent) and extension orientation (46.67 per cent) and knowledge about value added products (43.33 per cent).
4. Majority of the copra unit owners belonged to medium level of entrepreneurial behaviour (60.00 per cent)
5. Majority of the coconut oil mill owners (36.67 per cent) was perceived to have medium level of entrepreneurial behaviour.
6. Correlation studies revealed that education, annual income, mass media exposure, level of aspiration, attitude towards self employment, economic motivation, self reliance and knowledge about value added products were significantly and positively associated with entrepreneurial behaviour of copra unit owners. Whereas age, experience in enterprise, social participation, extension orientation had no relationship with entrepreneurial behaviour.
7. Education, mass media exposure, Level of aspiration, attitude towards self employment, economic motivation, self reliance, and knowledge about value added products were significantly associated with entrepreneurial behaviour of coconut oil mill owners. Age, experience in enterprise, annual income from

enterprise, social participation, extension orientation shows no relationship with entrepreneurial behaviour.

8. Majority of copra unit owners (56.00 per cent) were purchasing coconut as vettithookum.
9. Majority of copra unit owners (65.33 per cent) followed sun drying. Only 34.67 respondents were using copra drier for drying.
10. Majority of the copra unit owners (52.00 per cent) arranged their credit from non - institutional sources.
11. Benefit cost ratio (1.15), Current ratio (62.57) and Net capital ratio (18.49) revealed that profitability and sound long term economic position of the copra unit owners.
12. Majority of the coconut oil mill owners (56.67 per cent) were using mechanical rotary chekku for extraction coconut oil. Only 43.33 per cent of oil expeller units were found in the study area.
13. Majority of coconut oil mill owners (73.33 per cent) arranged their credit from institutional sources.
14. Profitability and sound long term economic position were also observed here. 1.16, 85.71, 27.52 was Benefit cost ratio, current ratio, and net capital ratio respectively.
15. Shortage of raw materials, instability of prices, higher labour charges were the major constraints perceived by copra unit owners followed by lack of organized marketing, facing higher scrutiny at the hands of banks and other financial institutions, competition from low priced oils and import of coconut oil.

16. Shortage of raw materials, instability of prices, competition from low priced oils were major constraints perceived by coconut oil mill owners, followed by lack of organized marketing, high labour charges, import of coconut oil, lack of infrastructure facilities and higher scrutiny at the hands of bank and financial institutions.
17. Current information on market prices of the produce, establishment of ware houses, market literacy programme, vertical integration of the coconut oil based units, financial assistance from Coconut Development Board, initiation and study of techno – economic viabilities of new processing technologies were suggestions for the development of coconut oil based industry.
18. For generalization of findings, similar studies could be conducted in other districts also. Multi- disciplinary research team must explore the prospects of entrepreneurs, as it is one of the major agro- based industries in Kerala. Extension strategies of government and non-government organizations for promotion of entrepreneurs may be studied for their efficiency.

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APPENDICES

Appendix -I

SELECTION OF VARIABLES FOR THE STUDY



KERALA AGRICULTURAL UNIVERSITY
COLLEGE OF AGRICULTURE,
VELLAYANI, THIRUVANANTHAPURAM – 695 522

Dr. B. Seema
Assistant Professor

Department of Agricultural Extension

Date :

Sir/ Madam,

Sub : P.G. Education – Thesis Research Project – Judges opinion requested - regarding

Mr. M. Gurubalan, M.Sc. student in this department has taken up a research study on “**Entrepreneurial behaviour of coconut oil-based unit-owners**” under my guidance.

The objective is to analyse the entrepreneurial behaviour of coconut oil-based unit-owners and study their profile characteristics. Economic analysis of the units will also be undertaken. The study also aims to identify the constraints experienced by the entrepreneurs in this sector.

Considering your vast experience in the field of agricultural extension you are selected as one of the judges. You are requested to indicate your judgment about the appropriateness of the dimensions to measure the entrepreneurial behaviour and rate the variables with regard to the relevance of each variables of entrepreneurial behaviour. Kindly record your judgment in the five point continuum of “most important”, “more important” “important” and “less important” and “least important” by putting a (✓) mark in the appropriate column in the case of dimensions of entrepreneurial behaviour and variables influencing the entrepreneurial behaviour. If you feel any more important variable has been left out, kindly add the same while your judgment.

Thanking you,

Yours faithfully,

B. Seema

Entrepreneur : A person who initiates production, takes decision, bears risks, involves organized and co-ordinates other factors of production.

Entrepreneurial behaviour : A set of characteristics associated with persons who possess the drive and capabilities to obtain and manage the variety of inputs necessary to successfully undertake a venture.

I. Dimensions of entrepreneurial behaviour

II.

Sl. No.	Variable	Most important	More important	Important	Less Important	Least Important
1	Decision making ability: defined as the degree to which a entrepreneur justifies the selection of most effective means from among the available alternative on the basis scientific criteria for achieving maximum economic profit					
2	Self-confidence: refers to the extent of feeling of an entrepreneur about her/his own lowers, abilities and resourcefulness to reform an activity which she/he desire to undertake.					
3	Achievement motivation: Refer to the desire for excellence of an entrepreneur to attain a sense of personal accomplishment.					
4	Risk taking ability: defined as the degree to which an entrepreneur is oriented towards risk and uncertainty and have courage to face the problems in starting an enterprise.					

5	Credit orientation: defined as the favourable and positive attitude of an individual entrepreneur towards obtaining credit from institutional resources for starting an enterprise.					
6	Management orientation: defined as the degree to which an entrepreneur is oriented towards scientific management comprising of planning, production, and marketing of her/his enterprise.					
7	Initiative: defined as the capacity of an entrepreneur to come forward on her/his own to take up some activities/enterprise.					
8	Assistance of management services: referred the degree to which the individual entrepreneurs gets assistance of management services					
9	Innovation proneness: defined as the degree to which an entrepreneur is relatively earlier in adopting new ideas.					
10	Scientific orientation: Defined as the degree to which the respondent is oriented towards the use of scientific methods in decision making on starting and running of an enterprise.					
11	Value orientation: defined as those aspects of an entrepreneur which commit him/her to the observance of certain norms/standards, criteria for relation whenever she/he is in contingent situation which allow her/him to make a choice.					
12	Change proneness: refers to the behaviour pattern of an entrepreneur who was interested in and desire to seek chance into him/her operations when practicable and					

	feasible.					
13	Self concept: Refers to the set of cognition and feelings that the respondent have about himself / herself as an entrepreneur.					
14	Deferred gratification: refers to the postponement of immediate benefit of short range rewards in order to secure more long range goals and the resulting satisfaction.					

II. Operationalization of independent variables

Variables	Most relevant	More relevant	Relevant	Less relevant	Least relevant
1 Age: is defined as the number of calendar years completed by an entrepreneur at the time of interview.					
2 Caste: Caste refers to the caste hierarchy of an entrepreneur whether belongs to open/backward/scheduled caste					
3 Religion: the religion to which the respondent belonged.					
4 Educational status of the respondent: It is defined as the level of formal education attained by respondent.					
5 Educational status of the family: It refers to the level of formal education obtained by the members of the family.					
6 Annual income: is defined as the total earnings of the family for one year.					
7 Experience in enterprise: It refers to the experience in enterprise in terms of completed years by the respondent.					
8 Size of the enterprise: The size of the firm of the respondent.					

<p>9 Mass media contact: Defined as the extent to which an entrepreneur is exposed to different mass media communications such as radio, newspaper, television.</p>				
<p>10 Social participation: refers to the content and nature of participation of an entrepreneur in various activities of social organizations.</p>				
<p>11 Cosmopolitaness: The degree to which an entrepreneur is oriented to his/her immediate, outside social system.</p>				
<p>12 Level of aspiration: Refers to an entrepreneur's overall assessment of his/her concern for wishes and hopes for the future for the fear and worries about the future in his/her own reality world</p>				
<p>13 Attitude towards self-employment: is defined as the degree of positive or negative feeling of an entrepreneur towards self-employment.</p>				
<p>14 Thoughtfulness: refers to the extent to which the respondents have thinking introversion, reflectiveness, and being observant and meditative.</p>				
<p>15 Sociability: The extent to which the individual makes friends, he likes social contacts and social activity.</p>				
<p>16 Competition orientation: defined as the degree to which an entrepreneur is oriented to place, himself/herself in a competitive situation in relation to other individual for projecting her/his excellence in her/his business</p>				
<p>17 Economic motivation: refers to the occupational excellence in terms of profit making and relative value placed on economic ends by an entrepreneur.</p>				

<p>18 Leadership: It is defined as the ability of a person to influence people to co-operate in achieving a goal</p>					
<p>19 Self reliance: refers to the extent to which a person relies on self for him/her future</p>					
<p>20 Extension orientation: Refers to the extent of contact of an entrepreneur with different extension agencies and his participation in various extension activities or programmes like seminar, group discussion, meeting etc.</p>					
<p>21 Knowledge about value added products: It is defined as understanding of the entrepreneur about value added products in coconut</p>					
<p>22 Other variables, if any Please specify and explain.</p>					

Signature :

Name :

Designation :

Appendix -II

INTERVIEW SCHEDULE

ENTREPRENEURIAL BEHAVIOUR OF COCONUT OIL-BASED UNIT-OWNERS

Date :
Block Panchayat :
Ward :
Respondent No. :

1. Name of the respondent :

2. Address :

3. Age in completed years :

4. Educational status of the respondent: Illiterate / Primary school / Middle school / High school / College and above

5. Experiences in Enterprise (No. Of years):

6. Annual income (Rupees) :

7. Mass media exposure

Please indicate your response in the appropriate alternatives by putting a tick mark (✓)

Sl. No.	Mass media	Frequency of exposure		
		Regularly	Occasionally	Never
1	Radio			
2	Newspaper			
3	Television			
4	Farm magazine			
5	Bulletins			
6	Books			
7	Films			
8	Others, specify			

8.Social Participation

Please indicate whether you are a member or office bearer in any of the following organization. If so, indicate the frequency of the participation.

Sl. No	Organization	Nature of participation			Frequency of participation in meetings		
		No membership	Membership	Office bearer	Never	Sometimes	Regularly
1	Panchayat						
2	Co-operative society						
3	Farmer's club						
4	Youth club						
5	Socio-cultural organization						
6	Any other (specify)						

9.Extension orientation

Please indicate your response in the appropriate alternatives by putting a tick mark (✓)

a. Extension contact

Sl. No.	Category of personnel	Frequency of contact		
		Regularly	Occasionally	Never
1	Agricultural scientist			
2	Agricultural Officer			
3	Agricultural Assistant			
4	Others, specify			

b. Extension participation

Sl. No.	Activities	Frequency of participation		
		Regularly	Occasionally	Never
1	Study tours			
2	Seminars			
3	Exhibition			
4	Group farming meetings			
5	Demonstrations			
6	Farmer's day			
7	Others, specify			

10. Level of aspiration:

Here is a picture of a ladder. The top of the ladder represents the best possible life for you, the bottom the worst possible life and middle neutral.

After reading the following questions carefully, please select a number from the ladder

9	Top (Best possible life)
8	
7	
6	
5	Middle (Neutral)
4	
3	
2	Bottom (worst possible life)
1	

1. where on the ladder do you feel you personally stand at present ()
2. where on the ladder would you say you were five years ago ()
3. where on the ladder you think you would be five years from now ()

11. Attitude towards self employment :

Please indicate your agreement or disagreement with the following statements

Sl. No	Statements	Agree	Disagree
1	Agriculture is a potential field for self employment during the present period of extreme unemployment		
2	Self employment in agriculture is an independent profession as it offers freedom		
3	There is no necessity for an educated unemployed youth to go for self employment in agriculture as government jobs are meant for him		
4	Self employment in agriculture is desirable, Since one need not expect any sanction from any official		
5	It is unwise to select self employment in agriculture as it needs more physical and mental efforts		

6	Sound family background in agriculture is a necessity for selecting self employment in it		
7	Agriculture is the basis for other industries so selecting self employment in agriculture is always worthy		
8	For an unemployed youth agriculture is a sure profession facing the vagaries of life		
9	Self employment in agriculture help one to become self sufficient in life		
10	Since there are ample technologies available in agriculture one can make self employment in agriculture easily		

12. Economic Motivation

Please indicate your response in the appropriate alternative by putting a tick mark (✓) SA-strongly agree, A-agree, UD-undecided, D-Disagree, SD-strongly disagree

Sl. No.	Statements	SA	A	UD	DA	SDA
1	An entrepreneur should work hard for economic profit					
2	The most successful entrepreneur is one who makes more profit					
3	An entrepreneur should try any new ideas which may earn more money					
4	An entrepreneur must earn his/her living but most important things in life cannot be defined in economic terms					
5	It is difficult for one's children to make good start unless one provide them with economic assistance					

13. Self-reliance:

How much of your future depends on yours self

Percentage	Score
100	5
75-99	4
50-74	3
25-49	2
Less than 25	1
Not at all	0

14. Knowledge about value added products

1. ----- is the new coconut product available in the Kerala state (coconut chips / desiccated coconut)
2. -----is the product obtained from coconut milk (virgin coconut oil / Nate-de-coco)
3. Mention the coconut water products from the following? (Coconut vinegar /cococheese)
4. ----- is the important coconut shell products.(shell charcoal/coirpith)
5. Coconut husk are used to carve out human figure (yes/no)
6. ----- Old nuts are used for making snow ball tender nuts (8-9 months, 4-6 months)
7. Ice cream cups are made from coconut shell (Yes/no)

II.DIMENSIONS OF ENTREPRENEURIAL BEHAVIOUR

1. Decision Making Ability

Please tell me whether you have taken decision for each of the following .If yes, is the decision taken on your own or in consultation with others

Sl.NO	Decision making area	Response pattern	
		Independently	In consultations With others
1.	Decision to start an enterprise		
2.	Decision to avail loans		
3.	Decision to tryout subsidiary enterprise		
4	Decision to hire labourers		
5	Decision regarding storage and marketing of produce		
6	Decision regarding the value addition of the produce		
7	Decision to sale and /or purchase a machinery and equipments		
8	Decision to meet the extension or any organization		
9	Decision to subscribe for magazines		
10	Decision to attend training		

2. Achievement Motivation

Here are some statements. Please give your degree of consensus to each statement.

Sl. No.	Statements	SA	A	UD	DA	SDA
1.	One should enjoy as much as play.					
2.	One should work hard at everything one undertakes until he is satisfied with the result.					
3.	One should succeed in his occupation even if one has been neglectful of his family.					
4.	One should have determination and driving ambition to achieve certain things in life even if these qualities make one unpopular.					
5.	Work should come first even if one cannot get rest.					
6.	Even when one's interests are in danger, he should concentrate on his job and forget his obligation to others.					
7.	One should get difficult goals for oneself and try to reach them.					

3. Risk Taking Ability

Please indicate your response in the appropriate alternative by putting a tick mark (✓) SA-strongly agree, A-agree, UD-undecided, D-Disagree, SD-strongly disagree.

Sl. No.	Statements	SA	A	UD	DA	SDA
1	An entrepreneur should start more enterprises to avoid greater risks involved in a single enterprise					
2	An entrepreneur should rather take more of a chance in making more profit than to be content with a smaller but less profit					
3	An entrepreneur who is willing to take a greater risk than an average one usually do better financially					
4	It is good to take risks when one knows that chance of success is fairly high					
5	It is better not to try new ideas unless others have done it with success					
6	Trying an entirely new method involves risk but it is worthy					

4. Management Orientation

Please state agreement or disagreement to each of the statements below.

Sl. No.	Statements	Agree	Disagree
a)	Planning orientation		
1	Each year one should think afresh about the enterprise to be started.		
2	It is not necessary to make prior decision about the specificity of the enterprise to be started.		
3	The inputs required for running the enterprise should be assessed well in advance.		
4	It is not necessary to think ahead of the cost involved.		
5.	One need not consult with any of the experts for planning work.		
6.	It is possible to increase the returns through a well-defined production plan.		
b)	Production orientation		
1.	Timely starting of an enterprise ensures good returns.		
2.	One should use as much inputs he likes.		
3.	Optimizing the input requirement by analyzing the demand saves money.		
4.	Scientific method of production involves high cost.		
5.	For scientific production, one should have proper knowledge about technology.		
6.	Training is essential for starting an enterprise		
c)	Marketing orientation		
1.	Market news is not useful to an entrepreneur.		
2.	An entrepreneur can get good price by grading his produce.		
3.	Warehouses can help the entrepreneur to get better price for produce.		
4.	One should sell his produce in the nearest market irrespective of the price.		
5.	An entrepreneur can get better price by processing the produce.		
6.	One should start their enterprises, which have more market demand.		

5. Self Confidence

Please indicate your response in the appropriate alternatives by putting a tick mark (✓)

Sl. No.	Statements	Always	Most often	Often	Occasionally	Never
1	I feel no obstacle can stop me from achieving my final goals					
2	I am generally confident in whatever I do					
3	I am bothered by the feeling that I cannot compete with others					
4	I am not interested to do things at my own initiative					
5	I usually workout things for myself rather than get someone to show me					
6	I get encouraged easily					
7	Life is a struggle for me in most of the time					
8.	I find myself worrying about something or others					

6. Innovation Proneness

Please indicate your response in the appropriate alternative by putting a tick mark (✓) SA-strongly agree, A-agree, UD-undecided, D-Disagree, SD-strongly disagree

Sl. No.	Statements	SA	A	UD	DA	SDA
1	You would feel restless unless, you tryout an innovative method which you have come across					
2	You are cautious about trying new practices					
3	You like to keep up-to-date information about the subjects of your interest.					
4	You would prefer to wait for others to tryout new practices first					
5	You opt for the traditional way of doing things than go in for newer methods.					

III. ECONOMIC DIMENSIONS OF THE ENTERPRISE

A. Expenses On Capital Items

Sl. No.	Items	Year of purchasing/ construction	Life span	Size / No.	Cost of construction / purchase
1	Building				
2	Oil expeller /mechanical rotary chekku				
3	Copra drier				
4	Tarpaulin				
5	Other equipments				

B. Operational Expenses on Copra and Milling

Sl. No	Item	Amount (in Rs)
1.	Operating expenses of copra making a) Cost of coconut b) Labour charges c) Fuel charges c) Electricity charges d) Transport charges e) Maintenance and repair f) Miscellaneous Operating expenses of milling a) Cost of copra b) Labour charges c) Oil and lubricants d) Electricity e) Transport charges f) Repair and Maintenance charges g) Miscellaneous	
3.	Total	

C. Returns

Sl. No.	Name of the product	Quantity (Qtl)	Amount (in Rs)
1	Copra		
2	Oil		
3	Oil cake		
4	Husk		
5	Shell		
6.	others		
	Total		

D. Source of credit and loan repayment amount per year

Sl. No	Source of credit	Year of borrowing	Total amount	Interest rate	Amount repaid	Balance
1.						
2.						
3.						

IV. CONSTRAINED EXPERIENCED BY THE ENTREPRENEURES

S.No.	Statement	Rank
1.	Import of coconut oil	
2.	Shortage of raw material	
3.	Lack of infrastructure facilities	
4.	Facing higher scrutiny at the hands of banks and other financial institutions	
5	Lack organized marketing	
6	Competition from low priced oil	
7.	Instability of prices	
8	High labour charges	

V. SUGGESTIONS TO RESOLVE THE CONSTRAINTS

ABSTRACT

**ENTREPRENEURIAL BEHAVIOUR OF
COCONUT OIL-BASED UNIT-OWNERS**

M.GURUBALAN

**Abstract of the
thesis submitted in partial fulfillment of the requirement
for the degree of**

Master of Science in Agriculture

**Faculty of Agriculture
Kerala Agricultural University, Thrissur**

2007

**DEPARTMENT OF AGRICULTURAL EXTENSION
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VELLAYANI, THIRUVANANTHAPURAM-695 522
KERALA, INDIA**

ABSTRACT

The study entitled “ Entrepreneurial behaviour of coconut oil based units owners” was undertaken with an objective to analyse the entrepreneurial behaviour of coconut oil based units, their profile characteristics and economic dimensions of enterprise. It was also aimed to identify the constraints as perceived by the entrepreneur so as to provide valuable suggestions for the development of the enterprise.

The study was conducted in Pallichal, Pulimath, Parasala block Panchayats in Thiruvananthapuram district. A sample of 25 copra units and 10 coconut oil mills from each Panchayat were selected at random thus making a total of 105 respondents. The data collected were statistically analyzed using arithmetic mean, percentage and simple correlation.

The study revealed that majority of the respondents from both categories had medium to high level of entrepreneurial behaviour.

Relationship of the profile characteristics with entrepreneurial behaviour showed that in the case of copra unit owners, variables namely education, annual income, mass media exposure, attitude towards self employment, economic motivation and knowledge about value added products were positively and significantly correlated. In case of coconut oil mill owners, education, mass media exposure, level of aspiration, attitude towards self employment, economic motivation, self reliance and knowledge about value added products had positively significant correlation with the entrepreneurial behaviour.

Economic analysis of enterprises showed that profitability and sound economic position in both the categories of respondents.

Shortage of raw materials, instability of prices, high labour charges, and lack of infrastructure facilities were considered to be major hindrances encountered by copra unit owners. Whereas in coconut oil mill owners, shortage of raw materials, instability of prices, competition from low priced oils and lack of organized marketing were perceived as major constraints.

Current information on prices coupled with ware housing facilities. Market literacy programme, vertical integration of coconut oil based units and initiation of new processing technologies were the major suggestions for the development of coconut oil based industry.

