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ABSTRACT:

Food, clothing and shelter are three essential needs for any human. Food is consumed by human as pulses, grains, etc., among various grains; rice is most important staple food in India. India is the second biggest rice producing country in the world after China, contributing about 20 percent of the world’s production. In India the southern region consumes more rice and also cultivates paddy in large quantities.

Rice is the end product of paddy after various production operations. In the past, the conversion of paddy to rice was a household job, a tasking proposition for the women folk. But due to high demand for rice the household job was transformed to mills operations. Milling is a crucial step in post-production of rice. The basic objective of a rice milling system is to remove the husk and the bran layers, and produce an edible, white rice kernel that is sufficiently milled and free of impurities. This is initially done in mills by manual operation. Due to the innovation of machineries, the new technology, has been adopting for converting paddy to rice in the name modernization.

Modernization of rice mill yield more rice from it, and came with more competition between the rice mill entrepreneurs. It involve of high capital, and huge investment to start a new rice mill. Even though more rice mills were emerged in southern region of India. Many of the rice processing units are of the semi automatic type and are inefficient. Modern rice mills are having high capacity and are capital intensive, although inefficient. It is a bottleneck in its adoption by the prospective entrepreneur. So, it leads more challenges for all rice mill entrepreneurs in Tamilnadu.

This paper identifies the problems which are all faced by rice mill entrepreneurs from the stage of procuring paddy till the end process of Rice. And also the rice mill entrepreneur has been obtaining some prospects from it. All frameworks for problems and prospects of rice mill entrepreneur identifies with the help review of literature and some data collected from the rice mill entrepreneur through some observation. This paper produces the findings of factors identification for constructing questionnaire to conduct survey for my research work in the topic of “A study on the Problems and Prospects of Rice mill Entrepreneurs with Special reference to Tamilnadu”.

Keywords: Entrepreneur, Problems and Prospects, Mill Owners, Rice, Importance of Food.


Introduction

Every human to survive in this world requires three essential things, Food, Clothing and Shelter. Among these three, food is necessary for living in a good health. Food is an essential prerequisite for life and as such the primary goal of eating and drinking is to enable the body to function normally. With food, or the lack of it, the destinies of individuals are greatly influenced. We should "eat to live", and "not live to eat".

Food is like fuel to keep the fire burning. Too much and you smother it, (too fat) too little and you starve the fire, (anorexia) so you need to find the right amount of fuel or food that suits your bodies needs. Food is important for life. You need food to live. Food is like fuel to a car you need it to keep on with your life. You also need food to function the body in right way.

Human cells need 45 chemical components and other elements which are called essential nutrients and these all must be present in adequate healthy food, Oxygen and water are the two and other 43 are classified in 5 main category i.e. Proteins, fat, Carbohydrates, Minerals and Vitamins these all nutrients are vitally important for managing our body functions . The body needs varying amounts of these types of food so that the adequate amount of nutrients is supplied to the body. All these are used by the body to provide energy, repair and replace damaged cells, sustain the body and help the body fight infections. This classification of chemical components where to human gets is shown as below.

- **Carbohydrates** come in the form of bread, pasta, cereals, rice and potatoes and if possible the whole meal variety should be consumed i.e.: brown rice, whole meal bread, whole wheat pasta.
- **Proteins** are essentially obtained from products of animal origin, such as meat, dairy products, eggs and fish; however, as they also contain certain amounts of fat, they should be consumed in smaller quantities than other types of food. Proteins can also be derived from vegetable products such as beans, lentils, nuts and rice.
- **Fruit and vegetables** provide us with **vitamins and minerals** and should make up the second largest part of our daily diet. Vitamins and minerals keep the body healthy and help to prevent against many illnesses and diseases. They are vital to the correct function of our immune and nervous systems and are paramount to good health. A person with glowing and radiant skin, shiny hair and an abundance of energy is sure to eat a diet that is full of vitamins and minerals.
- **Fat** contains in above all of the four in small quantity, that is enough for our body, not necessary to take fat contains separately.

If your diet is lacking in even one of these it can prove fatal. A well-balanced diet does not mean an equal amount of each type of food, as our body requires more of some nutrients than others. Each type of food plays a significant role in our body but excesses or deficiencies of certain types of food can also harm the body and produce a negative impact on our health. It is very important that we know how much of each type of food we are supposed to consume and that we eat in a sensible way. This means eating regular meals at least three times a day and drinking plenty of water.
Safety food

"We are what we eat" is an old proverb. Our nutritional status, health, physical and mental faculties depend on the food we eat and how we eat it.

Access to good quality food has been man's main endeavour from the earliest days of human existence. Safety of food is a basic requirement of food quality. "Food safety" implies absence or acceptable and safe levels of contaminants, adulterants, naturally occurring toxins or any other substance that may make food injurious to health on an acute or chronic basis. Food quality can be considered as a complex characteristic of food that determines its value or acceptability to consumers. Besides safety, quality attributes include: nutritional value; organoleptic properties such as appearance, colour, texture, taste; and functional properties.

The Importance Of Food

There is one thing all men have in common with the animals - the necessity for daily food. For rich and poor alike a certain amount of food is necessary to keep the body in good condition. But the three meals a day, three hundred and sixty-five days in the year, are the bane of housekeepers the world over. They must be planned, prepared, and served with unvarying regularity in order to maintain the health and efficiency of the family.

Although each household has different conditions to meet which make the problem more or less distinct, at the same time there are world problems and situations to-day which put us all on much the same footing whether we keep house in our own homes or depend upon hotels and restaurants for our meals. The war has brought us face to face with the fact that each individual, in regard to the food he consumes as well as in other respects, is no longer a unit by himself, but is a part of the community, and is responsible to the world at large for his likes and dislikes, or for the surplus he consumes over and above his actual needs.

Nowadays, we are becoming more aware of how our diet is important to our health and that it is vital that we eat the right kinds of food to stay healthy and fit. Good nutrition is essential for good health and eating nutritious food can help to prevent against common ailments, as well as more life threatening illnesses and diseases. Medical scientists now believe that a third of all cancers and most cases of heart disease are related to poor diet.

Review Of Literature

This study is to evaluate the performance of Entrepreneurial Development Programmes from the standpoint of the banks, to study the factors influencing the attitude of the entrepreneurs towards the Entrepreneurship Development Programmes, to give suggestions for conducting the Entrepreneurial Development. This study has been undertaken in all the districts, namely, Chennai, Madurai, Salem, Dharmapuri, Dindigul, Erode, Ramanathapuram, Sivanganga, Trichy, Villupuram, Coimbatore, Tirunelveli, Kanyakumari; Pudukottai, Virudhunagar, Cuddalore, Tuticorin, Thanjavur (Journal of Services Research, 2008).

Education and entrepreneurship are the main enabling conditions for future change. Institutions of higher education should function as role-models of sustainability, with fairness

In this study the identification of valuable products or services is unlikely if not impossible absent the identification of valuable markets that they serve. Furthermore if opportunity discovery indeed relates to the generation of value, then valuable choices relating to design and sale of these products or services must be selected. While an entrepreneur theoretically could determine alone the precise set of choices required to create value, this is likely the exception. More likely the entrepreneur’s critical task is to efficiently govern the process of discovering opportunities. (Journal of Management Studies 44:7 November 2007).

According to Sharma and Chrisman’s definition of entrepreneurs; “Entrepreneurs are individual acting independently or as part of an organization, who create a new venture or develop an innovation and take risks entering them into the market place”. The definition above has many insights, which could help us understand and derive some of the characteristics properties, which make the difference between successful and unsuccessful entrepreneurs. The practice of entrepreneurship combines three major sets of practices. (i) The use of initiative and innovation. (ii) The ability to take reasonable risk. (iii) The user of entrepreneurial/managerial ability that ensures accomplishment. Problems of the Entrepreneur (i) Political instability, (ii) Presence of inflation, (iii) Inadequacy of information, (iv) Capital, (v) Inadequate of infrastructural facilities, (vi) Inadequate of Government support or motivation. (Seven Problems of Entrepreneur, Published on April 7, 2008 by Hadaycolar1 in Business and Society)

Importance Rice As A Food:

Throughout history rice has been one of man’s most important foods. Only in the rice, two different nutrients was present i.e. Protein and Carbohydrates. Today, this unique grain helps sustain two-thirds of the world’s population. Archeological evidence suggests that rice has been feeding mankind for more than 5,000 years.

Rice is one of the most consumed grains on the planet. In fact, half of our planet’s populations actually depend on it for survival. Rice originated in Asia and presently 90 percent of the world’s crop currently produced in Asia. But luckily, rice does not have to always be eaten plain. There are numerous possibilities that can plunge our rice eating experience into a world of taste and flavours all while being very healthy and nutritive.

Rice recipes with vegetables and lean meat are preferable if someone is on a diet and wants to lose weight. With approximately 200 calories per cup serving, it is free of fat, cholesterol, and sodium. Rice is easily digestible, making it suitable for all ages and individuals with sensitive digestive systems, and its naturally mild flavour is a suitable complement to many dishes. Here in Easy Indian food, we will provide you various Indian rice dishes. There is a dish available for everyone’s taste. Most dishes are made with mild flavour which allows catering as a main dish.

Rice is consumed as a main dish in southern parts of India, whereas in
northern part wheat flour is used for main dishes. Northern parts of India consume long grain rice normally called as basmati rice. It is rich in flavour. Rice is easily digestible, making it suitable for all ages and individuals with sensitive digestive systems, and its naturally mild flavour is a suitable complement to many dishes.

Globally, rice is a major food staple and a mainstay for many rural populations. As such, it is an important food crop for the food security of significant numbers of rural dwellers in the world. Maintaining rice biodiversity and utilizing its merits should have sustainable impact in increasing productivity in future. Rice is life, as it not only provides subsistence but also a source of income to meet the other household requirements in India. Rice is actually life sustaining.

Brown rice has a greater food value than white. Because the outer coating of brown rice contains added minerals and protein, As a food rice is low in fat and (compared with other cereal grains) in protein. Brown rice is considered to hold greater food value than its white grain counterpart. Brown rice does not get milled, thereby keeping its darker color. Like white rice, brown rice has its husks removed during the cultivation process. Brown rice contains 8-percent protein and is a good source of thiamine, niacin, riboflavin, iron and calcium. Traditionally, brown rice is the least favorite of all the rice’s.

Overview And Statement Of Opportunities:

Industry Scenario:-

World: In the international market Thailand, USA & UK have gone ahead in rice production. These countries are basically producing short grain non-basmati varieties. Besides Europe and UK also procure brown Basmati Semi processed rice from India and finally process further as per their requirements. The Milling Industries of these countries mainly employ automatic advanced technology of processing, professionally human resource and well managed organizations having concepts of TQM, appropriate and modern technology and continuous R&D activities. In non Basmati rice India faces top competition with Thailand, Philippines and Vietnam whereas in Basmati rice India stands topmost in the world as far as value structure is concerned. World produces 397.2 million tons of paddy (2006). It is estimated that about 800 million tons (FAQ) of rice will be required by 2025 A.D.

India: Rice milling units prevails mainly in the state like U.P., Uttaranchal, Punjab, Haryana, Orissa, W.B., A.P., Tamilnadu, Bihar, Assam, Karnataka and Kerala at National level. The states produce rice of both Basmati and non-Basmati variety. The Basmati varieties are mainly produced in Punjab, Haryana, U. P. and Uttaranchal. As far as exports of fine quality Basmati rice from the country is concerned 75% of it is exported from state of Haryana only and is followed by Punjab. Hence, the few bench marking cluster in the country is considered as Haryana and Punjab, which are rich in production, exports, quality and technology.

Rice Production area in India

The major rice growing area in India are West Bengal, Uttar Pradesh,
Problems & Prospects of Rice Mill Entrepreneurs - The Conceptual framework

Madhya Pradesh, Orissa, Bihar, Andhra Pradesh, Assam, Tamil Nadu, Punjab, Maharashtra, Kannataka, Haryana, Gujarat, Kerala, Jammu-Kashmir, Tripura, Meghalaya, Manipur, Rajasthan, Nagaland, Arunachal Pradesh, Himachal Pradesh, Mizoram, Goa, Pondicherry, Sikkim, A & N Island and D & N Haveli. Raw rice called in the name of Paddy. In Tamil Nadu paddy is cultivated in three major seasons namely Kuruvai (May-June), Samba (Sep-Oct) and Thaladi (Nov-Dec). The major varieties preferred for Kuruvai are ADT 36, CO43, ADT 43 and TKM 9. For Samba and Ponni, Thaladi BPT, ADT 36, ADT 37, ADT 39, CR-1009 and CO 43 varieties are preferred.

Rice is an essential crop for food security, poverty alleviation and improved livelihoods in Asia. Over 2 billion people obtain 60-70% of their food energy from rice. About four fifths of the world’s rice is grown by small-scale farmers in low income countries. Rice production employs 1 billion people and is essential to the economic development of rural areas in India, Bangladesh and Southeast Asia.

Important food item of southern India was rice. Rice is the end product of paddy after various production operations. In the past, the conversion of paddy to rice was a house hold job, a tasking proposition for the women folk. But due to high demand for rice the household job was transformed to mills operations. How this operation is essential for meet out the daily needs of our human life. But, in this milling operation the Rice Entrepreneurs faced many problems and also enjoying some prospects. These factors may identify from the following areas. The Secondary data collection method and observation method was adopted for finding factors of problems and prospects of milling operations.

Process Technology & Flow Chart

Two types of rice are produced by milling of paddy in the rice mills. These are:
- Raw Rice
- Parboiled Rice

The manufacturing of raw rice and parboiled rice from paddy involves the following major steps:
- Cleaning of Paddy using paddy cleaner & de stoner
- Parboiling of cleaned paddy in parboiling plant
- Mechanical Drying of parboiled paddy using steam
- Milling of parboiled & dried paddy using Sheller type milling machines
- Separation of husk using sieve cleaning of rice
- Polishing of rice using parling cones
- Separation of rice bran using sieve
- Separation of broken rice (brokens) using sieve
- Weighing & Bagging of rice & byproducts

For production of ordinary parboiled rice, atmospheric parboiling system.

For production of raw rice, the paddy after its cleaning and steaming is after soaking then drying is milled using sheller. Whole rice is the main product of rice milling and rice bran, rice husk and broken rice are obtained as byproduct during the process. Rice husk is the outer shell of rice and it is a fibrous material containing good amount of silica. Rice bran is a fine powder obtained during polishing of the brown rice when the outer coating on rice is removed as rice bran. It
contains vegetable oil as a valuable constituent.

The flow sheet depicting the process of manufacture of rice from paddy is presented below:

**FLOW CHART FOR RAW / PARBOILED RICE MANUFACTURE**

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FLOW CHART FOR RAW / PARBOILED RICE MANUFACTURE

Paddy
  | Soaking
  | Cleaning
  | Steam & Boiling
  | Drying
  | Mechanical Drying
  | Sun Drying
  | Shelling Unit

Cleaning
  | Dehusking
  | Husk Separator

Husk

Unshelled Paddy

Brown Rice
  | Polishing Unit
  | Bran Separator

Bran

Silky Unit
  | Destoning

Rice Grader

Removal Of Broken Rice & Impurities
  | Colour Sorting
  | White Rice
  | Weight & Packing

Broken Rice & Impurities
  | Colour Sorting

Pure Broken Rice

Removal Of Black Rice & Coloured Rice
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The recovery of product and by-product from rice milling is as given below:

![Diagram of rice milling process]

The material balance for a rice mill having sample size of 18 TPD paddy throughput is presented below:

300 BAGS @60 Kg/BAG = 18 TON PADDY (180 QUINTALS)

- RICE 63% 113.4 Qtls
- BROKEN RICE 3% 5.4 Qtls
- RICE BRAN 5% 5.4 Qtls
- RICE BRAN 19% 34.2 Qtls
- REFRACTION N 10% 18 Qtls

From the above diagram it depicts the analysis of production process of rice mill for two different types of rice. It was explain in the words below. It also noted the problems area and Prospects area for rice mill Entrepreneur from manufacturing process.

Analysis of Business operations:

a) Raw material procurement and its cost etc.

Paddy is the basic raw materials for rice mills. Ministry of agriculture
Govt. of India fixes up the minimum support price of different crops including paddy by way of policy to protect the farmers from exploitations. It is observed in our diagnostic study that no farmer is able to supply standard quality paddy. As such they are not getting minimum support price. This is one of the major problems.

b) Production process related problems

- In the process of parboiling water affluent is generated and is harmful. The rice millers are getting problem to store it.
- Rice husk is the cheapest fuel for generating steam but the waste product fly-ash is another headache for disposal for the millers.

c) Design related problems

The rice mills working in some cluster are of old technology. Electrical consumption is very high. Here in this technology electricity consumption is very high compared to modern rice mills.

d) Technology related problems

Technology is changing day by day. The technology adopted by the rice millers here in this state is occupying more space, consuming more energy polluting air and water and it is time consuming. As a whole the cost of production is high for the technology.

c) Credit Issues

Finance is not a problem nowadays excepts some mills all other mills have availed term loans and working capital from different commercial banks.

f) Marketing Issues

At present marketing of rice is all a problem because of free rice by government policy is also affect domestic market. Open market has the demand for consuming of the production. If the levy system will be out then marketing will be the major problem.

Presence of support institutions:-

Minister of Agriculture, Civil supply department, Tamil Nadu Agricultural Universities, Govt. of Tamil Nadu, Central Rice Research Institution, Indian Council for Agriculture Research, Agricultural Universities, National Productivity Council, National Commercial Bank, NABARD, DIC, SISI, Certification Agencies, Testing Laboratories, Engineering College, Engineering School, ITI.

i. Ministry of Agriculture : Ministry of Agriculture declares minimum support price of different food grain including paddy and rice,

ii. Civil Supply Department: playing major role in this state fixes the maximum target of purchasing paddy for the rice millers through specific market yard.

iii. Agriculture Department of Tamil Nadu: - The Deputy Director of Agriculture provides seeds to the farmers. They also have a agricultural lab. at Thanjavur, which in turn informs the farmers about seeds suitable for their local soils.

iv. IRRI: It is an inter-national level rice research center institute produces new variety of paddy suitable to local climatic condition.

v. NABARD: It is an agricultural developmental bank providing infrastructural assistances as well as conducts training and awareness
problems and prospects in it. It was identified through observation both are listed below.

Other stakeholders include the following: -

- Paddy suppliers (farmers & traders)
- Plant & Machinery suppliers
- Packaging material suppliers
- Govt. procurement agencies
- Traders of rice, rice bran and husk
- Exporters of rice
- Industry Association
- District Industries Centre
- R&D Centre
- Banks & Financial Institutions

Paddy suppliers (farmers & traders):

Paddy, the major raw material for rice mills, is procured both from the farmers & the traders. Procurement of this item from other districts in the state and also from other states like Karnataka, and Andhra Pradesh is mainly made from the traders, while local procurement of paddy is from both farmers & traders. The quantum of paddy procurement from traders & farmers is generally in the ratio of 90:10.

In view of the un-organised paddy procurement system in the state, the millers in the Tamil Nadu rice mill owners are to pay high price for procurement of paddy. While the prevailing minimum support price (MSP) for paddy is Rs.1000/- per quintal, the open market price is around Rs. 1200.00 to 1500.00 per quintal. The millers cannot exercise much of their bargaining power resulting in high incidence of raw material cost.

Packaging material suppliers:
Jute bags are mainly used for packaging of rice, rice bran and rice husk. For Government supply of rice against levy procurement, new jute bags are used, while for open market sales to trader’s rice is packaged in second hand jute bags and the old jute bags containing paddy is generally used for this purpose.

The new jute bags are procured from local manufacturers and sometimes also from the suppliers in other states. The requirement of such new bags is not much and the rice millers do not face many problems in their procurement. However, the unit price of such new jute bags varies widely throughout the year.

Plant & Machinery suppliers:

Plant & machinery in use are mostly fabricated items from local fabricators. The milling machines, polishing machines, etc. are generally sourced from the reputed machinery manufacturers in Coimbatore and other parts of the country. The technology used by the rice millers in their plants is not up-to-date as the plant & machinery manufacturers and suppliers from whom they procure such items have weak linkage with the R&D institutions. Further, the millers have very poor accessibility to foreign suppliers of costly advanced plant & machinery with high productivity and automatic control. Although some machinery suppliers with foreign collaboration have established their shops in India.

Govt. procurement agencies:

The different Govt. procurement agencies for the rice are:

- Department of Food & Supply through the District Controller’s Office
- The rice millers in the district are to adhere to the levy commitment fixed by the District Committee.

Traders of rice, rice bran and husk:

According to the prevailing custom, rice produced by the millers for the open market is procured directly by the traders and the millers do not have any marketing effort in this regard. Rice bran, a valuable byproduct of rice milling, is mostly sold to the solvent oil extraction units located in the district directly. A part of rice bran production is also sent outside the state through local traders. The number of rice bran traders operating presently in the state. Most of the rice husk produced in the state is burnt as fuel in the boilers for steam raising and also for power generation using gasifiers and gensets. Only the excess quantity after meeting the above requirements is sold to the traders.

Exporters of rice

Only a very small quantity of rice is exported to the neighbouring countries through the exporters. There are only a very few exporters of rice at present.

Industry Association

Tamil Nadu Rice Mill Owners Association has been operating in the state since more than 50 years and all rice mills of the Tamil Nadu are members of this association. The office of the association is located in Trichy City. This association in its executive committee has a president, a vice-president, a general secretary, a treasurer, an assistant secretary and a number of executive members. It has the following three sub-committees to
look after the interests of the members rice mills: -

- Finance sub-committee
- Labour sub-committee
- Levy sub-committee

The association, however, does not have any Technical sub-committee. Most of the members of the district rice mill owners associations are also the members of the chamber of commerce.

**District Industries Centre**

All the mills in the Tamil Nadu Rice Mill Cluster is not registered with the District Industries Centre (DIC). While most of the new mills are registered with the DIC, there are a large number of old mills, which have not obtained registration. For availing of various subsidies from the Govt. it is essential that all the mills should be registered with DIC. The office of DIC is located in each District head town.

After the coming of MSME (Micro, Small and Medium Enterprises) act into force the process of registration has been simplified and the old system of temporary and permanent registration has been replaced by Entrepreneurs Memorandum (EM) respectively.

**R&D Centre**

In the region there are renowned R&D institutions associated with the developmental works on the production, milling & processing of rice. These are:

- Central Rice Research Institute (CRRI), Cuttack
- Indian Institute of Technology (IIT), Kharagpur

The mills in Tamil Nadu have very poor linkage with the above R&D institutions and as such these units could not utilise the benefit of technological upgradation and product development so far. Because the lack of information.

**Banks & Financial Institutions**

The old mills in the Tamil Nadu could not and also did not avail the services from the banks & financial institutions operating in the district with regard to financial assistance in view of low fund requirement for small mills and also the non-aggressive attitude of the banks and financial institutions for financing such units. However, with the nationalised banks, co-operative banks and state financial institutions being liberal of late, the new mills, which have come up during the past, few years, have availed of financial assistance from such institutions. This has developed a better linkage between the mills and such institutions.

**Conclusion:**

The literature survey depicts the common problems faced by Entrepreneur and individual characteristics required for entrepreneurship and external supports need from external environment also. And from above conceptual work key factors for the research work is identified pertinent to the problems and prospects of rice mill entrepreneurs. This may came across under various categories. But I took all the categories of problems under eleven headings and also prospects under eleven headings. With this framework, I am going to structure my questionnaire and arranging factors in an appropriate manner, in a sequence of getting the things from the rice mill entrepreneurs towards Tamil Nadu.
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