



A study on literature review of agro based industries special reference to modern rice mills in Tiruchirappalli District

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Abstract

Trichy, a district in Tamil Nadu, India, has long been recognized for its agricultural prowess. Agro-based industries have emerged as a vital component of the district's economy, driving growth, employment, and innovation. This study examines the role of Agro-based industries in Trichy's economic development, focusing on their contribution to GDP, employment generation, and poverty alleviation.

Using a mixed- methods approach, combining secondary data analysis with primary data collection through surveys and interviews, this research investigates the impact of Agro-based industries on Trichy's economy. The findings highlight the significance of these industries in promoting economic growth, improving livelihoods, and enhancing the district's competitiveness.

The study concludes that Agro-based industries have the potential to transform Trichy's economy, but their growth is contingent upon addressing challenges such as inadequate infrastructure, limited access to credit, and insufficient technological adoption. The research provides recommendations for policy makers, industry stakeholders, and farmers to harness the potential of Agro-based industries and foster sustainable economic development in Trichy.

Keywords: Agro- based industries, economic development, Trichy, Tamil Nadu, India

Introduction

India, has a long history of agricultural excellence. The district of Trichy has fertile soil, favorable climate, and extensive irrigation network make it an ideal location for farming. Agriculture is the backbone of Trichy's economy, providing employment opportunities to a significant portion of the population. In recent years, agro- based industries have emerged as a vital component of the district's economy, driving growth, employment, and innovation.

The growth of Agro-based industries in Trichy has been driven by various factors, including government initiatives, technological advancements, and increasing demand for agricultural products. These industries have not only contributed to the district's economic growth but also improved the livelihoods of farmers and rural communities.

This study aims to examine the role of Agro-based industries in the economic development of Trichy, focusing on their contribution to GDP, employment generation, and poverty alleviation.

Objectives

1. To examine the employment generation potential of Agro-based industries. This study aims to analyze the employment opportunities created by Agro-based industries in Trichy and their impact on the district's unemployment rate.
2. To investigate the impact of agro-based industries on poverty alleviation. This study aims to examine the impact of agro-based industries on poverty alleviation in Trichy, focusing on their contribution to rural income and livelihoods.
3. To identify the challenges and opportunities faced by agro-based industries in Trichy. This study aims to analyze the challenges and opportunities faced by agro-based industries in Trichy, including government

policies, technological advancements, and market trends.

Limitations

1. **Data availability:** The availability of data on agro-based industries in Trichy is limited, which may affect the accuracy of the findings.
2. **Time frame:** The study focuses on the period between 2010 and 2020, which may not capture the long-term trends and patterns in the industry.
3. **Geographical scope:** The study focuses on Trichy district, which may not be representative of the entire state or country.
4. **Methodological limitations:** The study uses a descriptive research design, which may not allow for in-depth analysis or causal inferences.

Review of Literature

Introduction

Agro-based industries have been recognized as a vital component of the Indian economy, particularly in rural areas. These industries have the potential to contribute significantly to the country's GDP, employment generation, and poverty alleviation. Trichy, a district in Tamil Nadu, is known for its agricultural excellence and has a thriving agro-based industry.

Review of Literature

Introduction

The review of literature is a summary of all the reviews from various research literatures related to the current study carried out by a researcher.

It helps to discover what is already known about the research problem and what more has to be done.

Definition: According to Abdellah and Levine, the material gathered in literature review should be included as a part of the research data, since it influences the problem and research design it can be used to compare the results and findings for the current study.

Purpose

- To provide context for the reader
- To establish a theoretical framework for research
- To prepare for original research or making an argument
- To document the current state of knowledge on a topic

Types of literature review:

Narrative review: A traditional method of reviewing literature that focuses on qualitative interpretation

Systematic review: A review that follows a clear plan and protocol to identify, select, and evaluate research

Scoping review: A review that identifies the scope of existing knowledge on a topic

Steps for writing a literature review

- Define the topic
- Search for relevant literature
- Read and take notes
- Organize notes and create an outline
- Write the review
- Edit and revise

Review of Literature

Mishra Nain and Rashmi Singh (2016) focused that India is self sufficient in food grains. A large number of trained technical personnel are available and many researches in statutes are actively involved in rice post harvest technology research. India is the leading exporter of rice in the world. A ls all types of rice processing machinery and equipment are available in the countries. India also provides training to foreign personnel. Even though sufficient systematic development has been made and experience has been gained, still then much more has to be done for rice post harvest technology to play an important role in international scenario.

Ronald C. N. Oginyi *et al.* (2017) ^[38] investigated to assessment of occupational health hazards and the use of safety measure among rice mill workers milling industry. Result obtained from the research indicates that backache, headache, cough, catarrh, skin rashes, eye injuries, tuberculosis, asthma, bronchitis, bruises, wounds and amputation were the most prevalent occupational health hazard samon gricemill workers. The prevalence of safety measures on the assessmen to fooccupational health hazards among Rice mill workers.

Ratneswar Poddar (2014) ^[37] explained agro-based industries are developed and it can produce a stabilized and profitable enterprise through which more employment opportunities, both at the production and marketing stages can be created. The broad-based development of agro-products industry will improve both social and physical infrastructure of India. It is generally observed that, woman participation in any industrial sector is not only providing employment generation but it also saves agricultural wastage and agro industries play a lead role.

Nagalakshmi and Sudhakar (2013) focused that Government of India was frame the major policies based on equity along with growth in the agriculture sector. Being an agrarian country, many efforts been made towards economic and social stabilization over the past decades, but not much progress has been achieved in the growth of the agro industrial sector. Farmers lack access to adequate agricultural technology inputs, funding and commercial farming skills have put the quality under the threat. The productivity may be increasing, but better quality not been achieved.

Taufiq Ahmed *et al.* (2011) said agri preneurship is an employment strategy that can lead to economic self-sufficiency frural people. Train in gisak eyelement for the promotion of Micro, Small and Medium Enterprises (MSMEs) for agri preneurship development, particularly for the first Generation agripreneurs. These can result in improved performance of an individual which can contribute to employment generation, poverty reduction and HRD.

Senanayake and Premaratne (2016) ^[44] concluded that Rice and paddy sector is one of the largest sectors in Srilanka, in which many players, activities and resources are involved. It is well established that the value chains, provide opportunities for them in improving their competitiveness. Several models of integration have emerged. In most cases the small producers within value chains work together and form producer groups. The producers and consumers are exploited by the players, particularly by rice millers and wholesalers.

Ibidunni Ayodotun Stephen and Ogundana Oyebisi Mary (2014) ^[16] study show that importance of specific factors to strategies that support successful business performance. The adoption of Strategic orientation by an enterprise depends on antecedent factors, among which are: top management factor, organizational system, and departmental connectivity. Top management disposition to strategic orientation greatly impacts on the success or failure of such strategic activities. The support for strategies cantake the form of designing policies and programmes that will achieve the proper implementation and control of chosen strategies.

Kanchan (2016) ^[18] explained agro-based sector has experienced expansion during last 5 decades, starting with a handful offacilities which were mainly operating at domestic/cottagelevel. Agro-based industries assume great significance in the context of developing economics like India. The national plan should provide for management of agro-industrial activities in the catchment area, both by private companies and individuals as well as cooperatives. Financial incentives and support should be providing on liberal scale to promote the modernization of agro-processing industry and for establishing new such industries in production catchment.

Mishra Nain and Rashmi Singh (2016) ^[8] focused that India is self sufficient in food grains. A large number of trained technical personnel are available and many research instituttes are actively involved in rice post harvest echnology research. India is the leading exporter frice in the world. also, all type so frice processing machinery and equipment area vailable in the countries. India also provides training to foreign personnel. Even though sufficient systematic devleopment has been made and experience has been gained, still then much more has to be done for rice post harvest technology to play an important role in international scenario.

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Princy (2016) ^[33] found that now a days the rice mills use a highly mechanical system for production process. Soit reduces manpower requirement and expenses to some extent. The ricemillis an old activity, which has gone through different phases of the development. More experiments and discoveries are taking place in the field of rice milling the central food technology institute; Mysore was developed for processing of rice to secure and improveit and ensure superior value, lower cost of product and processing, reduction of wastages with better economic return to product and processors

Poonam Dhankhar (2014) ^[31] described the rice milling is the process that helps in removal of hulls and brans from paddy grains to produce polished rice. After harvesting and drying, the paddy is subjected to the primary mill in go peration which includes de-husking as well as there moval of bran layers (polishing) before it is consumed. Therefore, has to be done with utmostcare to prevent breakage of the kernel and improve the rice milling process and its importance.

Lertsatitthanakorn *et al.* (2014) ^[20] described the use of a rice husk gasifier as a cook stove is limited to the domestic sector of developing countries primarily because it needs electrical energy to drive a blower for the gasification process. The demand for renewable sources of energy is increasing due to an elevated concern about global warming, climate change and the decline of fossil fuel reserves. Compared with other renewable energy resources, biomass is huge. Currently, rice husk is widely used in stall mats, compost and fillers.

SubhesBhattacharyya (2014) explained rice husk-based electricity generation and supply has been popularized in South Asia by the Husk Power Systems (HPS) and the Decentralized Energy Systems India (DESI), two enterprises that have successfully provided electricity access using this resource. The Husk Power Systems has successfully used rice husks to provided centralized electricity in rural areas of India and has so far installed 84 plants to electrify 300 villages. Being a major rice producing region, South Asia surely has a significant potential of utilizing a major agro-waste to produce electricity for rural supply and rural development.

Arul Kumar and Manimannan (2014) ^[5] explained agriculture still forms the life line of our Indian economy and vital activity of a human being. Agriculture sector in India contributes nearly half of the national income, providing job to three fourth of the of al population. In short agri culture plays asignifi can role in the economic development process of a country and agri culture continues to be the most predominant sector of the Tamil Nadu economy. Agriculture productivity has been an important issue as the population continues to grow.

Shakeel-Ul-Rehman (2013) ^[45] explains that Indian agriculture has made a way into the phase of globalization

and diversification. It is estimated that the collective effect of the transformation in the domestic policies and international trade reforms would result in a much better incorporation of the Indian economy with in it self and with the rest of the world, and such a development would bring about substantial benefits to the Indian farmers. Indian to only require the contribution of one state like Tamil Nadu, but all the states must favour and contribute towards fulfilling the goal of agricultural sustainability and comprehensive growth.

Frank Rathana Kumar and Breshnev (2014) ^[11] concluded that, the various schemes launched from time to time in the country agriculture in surance have served very limited purpose. The coverage in terms of area, number of farmers and value of agricultural output is very small, payment find enmity based on are a approach is saffected farmer outside the compensated area, and most of the schemes are not viable. Expanding the coverage of crop insurance would therefore increase government costs considerably.

Ghani *et al.* (2013) has reviewed that agro-based products purchasing online, all proposed factors conform to the literature, in which product description together with value, facilitating buying process, communication, third party product certification and seller description can reduce product uncertainty in agro-based product. However, uniquely to the case of selling agro-based product, third party product certification and facilitating buying process have every or effect to product uncertainty. The effects product information signals i.e. factor that contribute to the mitigation of product uncertainty, specifically for agro-based product.

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Saraswati (2014) ^[40] explains food processing sector covers activities such as agriculture, horticulture, plantation, animal husbandry and fisheries. It also includes other industries that use, agriculture inputs for manufacturing of edible products. Increase the share of exports and reduce the in stability of export the Government and the industry have to work in close unison. The industry needs to adopt the latest technologies to inject greater efficiency which could provide economies of scale and cost effectiveness. Government should pay more attention on the promotion of export process in gunits.

KomolSingha (2013) revealed rice is the seed or kernel of paddy, which is covered by two different layers, namely-bran (inner layer) and husk (outer layer). Literally, paddy becomes rice only when the two layers are removed properly through different milling processes. Improvement of milling ratio not only gives good yield but also good quality of rice and higher net returns on investment. Upgrading the existing hullers or tradition alicemills to advanced techniques or modern rice mill sand reduce post-harvest loss and food security problem to some extent.

Conclusion

India is one of the agricultural consist country in the world with more than half of the population directly or indirectly involved in this activity. Contribution of the agriculture sector in GDP has been gradually comes down owing that the other sectors as industrial and service sectors, but at the same time agriculture turnover has been increased over a period of year.

It resulted that the growth of agricultural sector is inevitable only to meet the food demand of the country but also it facilitates the ancillary industries such as sugar, textile, and paper, automobile, chemical and fertilizer industries. Agro based industries are potentially viable for in the can temporary period that resulted growth of traditional and modern food-based industries in the country. Rice mills are one of the major and conventional agro-based industries with huge business opportunities and sustainability.

In Tiruchirappalli district rice mills are plays a key role in the industrial development of the district which provides an opportunity to avail local resources, employment generation and entrepreneurial competence. Though the industries are performing significantly, there is a need of technology up-gradation in with multinational and global standard to meet the competition with large scale industries. It is concluded that performance and business potential for the rice mill is constantly good in future.

Scope for Further Research

India based modern rice mill industries are significantly contributes in the world trade of rices to the china. In this aspect, research reality to the modern rice mill industries are more viable and significant in the recent periods.

This study also provides an opportunities to undertake further and related research such as agro based industries in difference approaches, food processing industries with multiple dimensions and modern rice mill industries and its progress performance, growth, achievements, contribution, employment generation, income mobilization, resource utilization and challenges and issues with respects to regional, national and international perspectives and also this research developed a platform to undertake research on technological commercial and intellectual approaches in modern rice mill industries.

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