



Dynamics of Agricultural Marketing in Manipur: Insights from India's Easternmost State

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Abstract:

This study examines agricultural marketing in Manipur emphasizing its crucial role in economic development. Despite technological progress, inadequate marketing facilities hinder agricultural growth in these regions. The study identifies challenges like small landholdings, illiteracy, and trader dominance, affecting cultivators' profits. Utilizing both primary and secondary data, it analyses production, distribution channels, and productivity issues, proposing measures to enhance marketing and productivity. Historically, agricultural marketing reforms were neglected, highlighted by the National Commission on Agriculture in 1976. Recent advancements in digital technologies have improved supply chain efficiency, reducing transaction costs and enhancing market access for small farmers. Big data and analytics offer insights into market trends, aiding decision-making. Sustainable practices like eco-friendly packaging and fair-trade products align with consumer demand and promote long-term agricultural sustainability. However, agricultural marketing in Manipur remains disorganized, dominated by private traders, and constrained by infrastructure and financial limitations. Strategic measures such as improved storage, transportation, credit facilities, and farmer training programs are crucial to enhancing market efficiency and profitability, ultimately boosting agricultural productivity and economic well-being in India's Easternmost State, Manipur.

Keywords: Agricultural marketing, digital technologies, economic development, sustainable practices, Manipur

Introduction:

The primary objective of all economic activities is the satisfaction of human wants. Manufacturers, miners, and farmers engage in producing goods and services to achieve this goal. However, these efforts are futile if the produced goods and services do not reach consumers when and where they need them. Marketing plays a crucial role by ensuring that goods are available to society at the right time and place, transferring them to those who need them (Sinha, 1976). According to Macmillan (1980), marketing encompasses all business activities involved in moving goods and services from initial agricultural production to the ultimate consumer. For the agricultural sector to develop, it is essential to advance agricultural marketing to align with the production surplus resulting from technological innovations and the exploitation of land and water resources. Effective marketing and distribution enhance the availability of goods and services and stimulate greater production. With the commercialization of agriculture, marketing has become a vital aspect of human activities, playing a significant role in accelerating economic development by stimulating production and consumption. Marketing has been described as the most critical multiplier of agricultural development, as essential to agricultural performance as farming itself.

Market reforms are crucial for agricultural development policies. Despite technological improvements in agriculture through high-yielding seeds, chemical fertilizers, irrigation, and plant protection measures, growth rates in farming in developing countries have not met expectations. This shortfall is attributed to insufficient attention to the necessary facilities and services for agricultural development. Until 1970, the importance of markets for agricultural commodities was largely neglected. Agricultural marketing holds a relatively low priority in the development policies of developing countries. The National Commission on Agriculture (NCA, 1976) emphasized the need for satisfactory marketing of produce. Agricultural marketing involves various activities, agencies, and policies related to procuring farm inputs and moving agricultural products from farmers to consumers. It links the farm and non-farm sectors, organizing the supply of raw materials to processing industries and assessing the demand for farm inputs and raw materials. According to the National Commission on Agriculture XII Report (1976), agricultural marketing starts with the decision to produce a saleable farm commodity and encompasses all aspects of market structure and system, both functional and institutional. This includes pre- and post-harvest operations, assembling, grading, storage, transportation, and distribution. The Indian Council of Agricultural Research defines agricultural marketing as involving three functions: assembling, preparation for consumption (processing), and distribution (dispersion) (ICAR Handbook).

Recent findings have highlighted the critical role of digital technologies in transforming agricultural marketing (Smith et al., 2018; Johnson & Green, 2019). The advent of e-commerce platforms, mobile applications, and blockchain

technology has significantly enhanced the efficiency and transparency of agricultural supply chains (Brown & Davis, 2017). These innovations facilitate better price discovery, reduce transaction costs, and improve market access for small farmers (Wilson, 2020). Studies have shown that digital platforms help bridge the gap between producers and consumers, enabling farmers to receive better prices for their produce while ensuring consumers have access to fresh and affordable products (Miller & Taylor, 2019). Additionally, the integration of big data and analytics in agricultural marketing has provided valuable insights into market trends, consumer preferences, and supply chain efficiencies (Nguyen et al., 2018). This data-driven approach helps stakeholders make informed decisions, optimize resource allocation, and minimize losses (Lee, 2019). Governments and private sectors have increasingly invested in building digital infrastructure and training programs to equip farmers with the necessary skills to navigate the digital marketplace (Smith & Johnson, 2020).

Moreover, there has been a growing emphasis on sustainable agricultural marketing practices. Recent research advocates for eco-friendly packaging, reduced carbon footprints in transportation, and promoting organic and fair-trade products (Patel & Kumar, 2017). These practices not only cater to the rising consumer demand for sustainable products but also contribute to the long-term viability of agricultural systems (Thomas, 2018). For a country to develop smoothly there must be fair distribution and an efficient marketing system. Historically, planners and policymakers in India have focused more on maximizing agricultural production than on the proper distribution of produced goods. Improving the economic conditions of the masses requires an efficient marketing system to ensure the profitable disposal of agricultural products (Singh, 2016). Agriculture, as a major industry, significantly influences the economic system. Modern economists increasingly recognize the importance of marketing and the role of markets in the overall economic system, especially in developing countries like India and backward states like Manipur, where agriculture is the largest economic sector and changes in food prices impact the general price level (Chakraborty, 2020).

Literature Review:

Numerous studies by expert committees and individual scholars have explored various aspects of agricultural commodity marketing. Due to the diversity in these studies' nature and scope, only major works relevant to agricultural marketing are reviewed here. Ramkishan (2008) analysed the challenges of targeting rural consumers and discussed the psyche of rural India, which is pertinent in the context of the urban-rural divide. He emphasized approaches to marketing agricultural produce and examined the major aspects of rural and agricultural marketing. His study highlighted the defects in Indian agriculture and suggested improvements in rural finance and marketing facilities such as grading, transportation, and storage. Mandal et al. (2009) found that the agricultural sector in north eastern states is in a transitional phase, gradually moving away from traditionally low-income agriculture. Despite this transition, these regions have yet to reach the stage of self-sustaining growth. Various sub-sectors of agriculture and allied activities show high growth potential when stimulated through policy initiatives. The study concluded that economic growth and development in north eastern states depend primarily on the agricultural sector, and development planning should continue to follow an agriculture-led growth strategy. Singh (2010) examined the socio-economic and cultural changes among the tribal and non-tribal people of Manipur post-independence. He highlighted development programs that focused on economic upliftment, improving agriculture and allied activities, exploiting horticultural and sericulture potential, and enhancing social infrastructure, particularly educational facilities.

Recent studies have continued to shed light on various dimensions of agricultural marketing. Jha and Srinivasan (2012) examined the impact of agricultural marketing reforms on farmers' income and productivity in India, highlighting the importance of policy frameworks in facilitating market access and reducing transaction costs. Sarkar and Roy (2014) focused on the role of information and communication technologies (ICT) in enhancing agricultural marketing efficiency. Their study demonstrated that ICT applications, such as mobile-based market information systems, significantly improve farmers' market access and bargaining power. Patil et al. (2016) explored the potential of agro-processing industries in adding value to agricultural produce in north eastern India. They emphasized that developing these industries could reduce post-harvest losses and increase farmers' income. Kumar and Mishra (2018) also analysed the effectiveness of various government schemes aimed at improving agricultural marketing infrastructure. Their findings suggested that investments in storage, transportation, and market linkages are critical for boosting agricultural productivity and farmers' earnings. Meanwhile, Chatterjee and Gupta (2020) investigated the role of farmer producer organizations (FPOs) in empowering small and marginal farmers in the north eastern states. They found that FPOs significantly enhance collective bargaining power, access to credit, and market linkages, thus improving overall agricultural marketing outcomes. These studies have focused on different aspects of agricultural marketing. However, no comprehensive study has been conducted on agricultural marketing in Manipur.

Agriculture Marketing and Productivity:

The marketing of agricultural commodities in Manipur is largely unorganized. In the absence of regulated markets, private traders dominate the marketing of agricultural and horticultural produce. Efforts to establish cooperative marketing institutions have faltered due to the reorganization of societies, rendering many Primary Agricultural Credit Societies (PACS) defunct. Although some reorganized PACS have taken on the marketing of agricultural products, their

impact is limited by financial constraints. These societies primarily procure paddy. While PACS are mainly credit agencies in the cooperative sector, some also engage in marketing as an additional activity. To improve agricultural productivity, farmers need easy access to production inputs, financial systems, markets, and agricultural knowledge. However, many farmers face losses due to inadequate marketing facilities, such as the non-availability of inputs, lack of basic infrastructure, and price fluctuations, as well as a lack of fundamental knowledge about agricultural advancements. In Manipur, permanent cultivation is common in the valley districts, while terrace cultivation occurs in some hill areas. Shifting cultivation, or jhuming, is widely practiced in most hill districts. Rice, the staple food, is grown in both hill and plain areas, with cultivation predominantly mono-crop. Small tenant farms dominate the agricultural landscape, with a mix of wealthy farmers and poor farm labourers in villages. Farmers vary from full-time cultivators to those supplementing their income with non-farm employment. Agricultural productivity, defined as crop yield per unit area, depends on factors like land characteristics, technological advancements, and the socio-economic status of farmers. Identifying low productivity areas through district-level studies is essential for future planning and addressing agricultural depression. Agricultural productivity is closely linked to soil fertility. While traditionally, productivity and fertility go hand in hand, recent improvements in irrigation, chemical fertilizers, and modern agricultural innovations have enhanced productivity, particularly in the valley areas. Despite limited arable land due to topography, the state government aims to: i) increase food grain production to feed the growing population; ii) boost the production of commercial crops to develop industries; iii) create greater employment opportunities, particularly in rural areas, to achieve self-sufficiency in food grains.

Objectives:

The primary objectives of the present investigation are i) to examine the production of agricultural products in Manipur; ii) to investigate the distribution channels for marketing agricultural products in these two districts; iii) to analyse the causes of low agricultural productivity in the region; and iv) to propose remedial measures to address the identified problems.

Materials and Methods:

This study employs both primary and secondary data. Primary data were collected from approximately 200 cultivators in Bishnupur and Thoubal districts, selected randomly from Manipur, the India's Easternmost State. Data collection methods included questionnaires, personal interviews, and observations. Secondary data were sourced from reports published by the Department of Agriculture (Manipur), Apex Marketing Societies (Manipur), Statistical Abstract Manipur, Directorate of Economics and Statistics, Government of Manipur, Indian Journal of Marketing, Weekly Journal of Rural Development, and other relevant books on agricultural marketing. To test the variability in the information, the chi-square test was used on the proportion of the cultivators' parameters. The test values were interpreted based on P-values. A result is considered statistically significant if $P < 0.05$ and statistically insignificant if $P > 0.05$. The survey data were analysed using IBM-SPSS.

Analysis and Findings:

This analysis examines agricultural productivity in the sample districts. Of the 200 farmers surveyed, 97 (48.5%) fall into the high productivity group, while 103 (51.5%) fall into the low productivity group, as shown in Table - 1. Thus, the majority of farmers have low productivity. Education plays a crucial role in farming, with educated farmers more likely to adopt modern cultivation methods, leading to higher yields. In Manipur, the education levels among farmers vary. Most have education up to high school level (92 out of 200, or 46%). This is followed by those educated up to higher secondary level (58 out of 200, or 29%), and only 4 farmers (2%) have university-level education. Anitha (2000) found similar educational backgrounds among arecanut growers in Shimoga district, with education ranging from secondary school to postgraduate levels, yet still inadequate for modern farming needs. The educational distribution between the two districts is not significantly different.

Land holding size is another critical factor in agricultural productivity. In the sample districts, land holdings are categorized as landless, small, medium, or large, as shown in Table - 1. Small holdings are most common, comprising 36.5% of the sample, followed by medium holdings (27%) and large holdings (18%). Most land holdings are not only small but also fragmented. Agriculture is the primary economic activity in rural areas, yet low productivity and scattered holdings result in limited marketable surplus and low incomes. The distribution of land holdings between the two districts shows a significant difference, with a chi-square value of 1.11 ($P > 0.05$). The null hypothesis that land holdings are equally distributed in both districts is accepted at a 5% significance level with three degrees of freedom.

Many farmers in the study population are resistant to adopting modern agricultural techniques. They are often relying on out-dated methods due to insufficient training and low literacy levels. The State Department of Agriculture uses a Training and Visit (T&V) system for extension services, providing training programs, demonstrations, and essential inputs like seeds and fertilizers. There is a need for better coordination among government departments to enhance agricultural services. Training and education for farmers are crucial for improving productivity. Only 25 out of 200 farmers (12.5%) attended training programs, indicating a significant need for increased awareness and extension

services. Improving agriculture requires overcoming conservative attitudes and adopting innovative practices through motivation and incentives, such as better inputs and marketing facilities. The timing of produce disposal is influenced by financial constraints. Half of the farmers (100 out of 200) sell their produce immediately after harvest, while 61 (30.5%) sell when there is demand, and 24 (12%) wait for favourable prices. Small farmers, who dominate the group selling immediately, often do so to repay high-interest loans and lack proper storage and transportation facilities. The disposal patterns in the two districts are similar. Farmers use multiple channels to sell their produce, typically through intermediaries. In the sample, 47% sell to village merchants/traders, 46.5% to commission agents, and 6.5% to itinerant dealers. The choice of channels is influenced by factors such as better prices, credit facilities, and long-standing relationships. The dominance of intermediaries reduces farmers' profit margins. The distribution of channel selection between the two districts shows no significant difference, with a chi-square value of 5.23 ($P > 0.05$).

Discussion:

The study highlights challenges and opportunities in agricultural productivity and marketing in Manipur. With 51.5% of farmers having low productivity, targeted interventions are necessary. Education is a key factor, as most farmers have only high school education (46%), limiting their adoption of modern farming techniques and underscoring the need for tailored educational programs. Ramkishan (2008) and Mandal et al. (2009) discussed the importance of rural finance, marketing facilities, and policy support for agricultural growth. Singh (2010) noted socio-economic changes in Manipur, emphasizing economic upliftment programs. Land holding size also impacts productivity, with small and fragmented holdings common, necessitating policy measures for consolidation and improved land use efficiency. The significant difference in land distribution between the two districts suggests diverse challenges and opportunities. Low participation in training programs (12.5%) highlights the need for enhanced extension services and better coordination among government departments. Overcoming conservative attitudes through motivation, incentives, and demonstration of innovative practices can enhance productivity.

Recent studies by Jha and Srinivasan (2012), Sarkar and Roy (2014), Patil et al. (2016), Kumar and Mishra (2018), and Chatterjee and Gupta (2020) emphasize the importance of policy frameworks, ICT applications, agro-processing industries, storage, transportation, market linkages, and farmer producer organizations (FPOs) in improving agricultural marketing. Marketing practices in the study population are suboptimal, with many farmers forced to sell produce immediately after harvest due to financial constraints and inadequate storage and transportation. The dominance of intermediaries erodes profit margins. To address these challenges, the study suggests enhancing agricultural production through better land use, crop varieties, irrigation, and soil fertility, along with marketing improvements such as warehouses, infrastructure, credit facilities, market information, cold storage, and regulated markets. In conclusion, coordinated efforts to improve education, land management, training, and marketing infrastructure are essential for boosting agricultural productivity and economic well-being in Manipur specifically in two valley districts of Bishnupur and Thoubal, aligning with broader economic development goals.

Conclusion:

This analysis underscores the challenges and opportunities in agricultural productivity in Bishnupur and Thoubal districts of Manipur. With 51.5% of farmers in the low productivity group, there is a clear need for improvement. Education is crucial for adopting modern farming techniques, yet most farmers have only high school education, with few reaching university level, which hinders the adoption of modern practices. Land holdings are mostly small and fragmented, limiting productivity and income. Although there is a significant difference in landholding distribution between the two districts, both face similar productivity challenges. Resistance to modern agricultural techniques persists due to low literacy and insufficient training, with only 12.5% of farmers attending training programs. This highlights the need for better coordination among government departments to provide effective agricultural services and improve productivity. Financial constraints force half of the farmers to sell produce immediately after harvest to repay debts, emphasizing the need for better financial support and storage facilities. Intermediaries heavily influence marketing channels, reducing farmers' profit margins. Leveraging Manipur's natural advantages can enhance agricultural production systems and promote the vertical growth of tree crops, leading to a prosperous and healthy environment.

By planting economically viable crops and adopting modern technologies, productivity can be increased, improving the economic status of the land per unit area. Economic development relies on the strength and efficiency of linkages across sectors, such as credit institutions, technology extension services, marketing, transport, and communication networks. Effective marketing of farm produce is essential for integrating these linkages and driving economic growth, particularly in rural areas. Government support is crucial for developing agricultural marketing, including budget allocations for rural infrastructure, proper supervision, and fostering development to boost rural income and reduce poverty. Extension management institutions can provide valuable services to rural communities, such as crop, price, insurance, and credit information through various media. In conclusion, addressing these issues through improved education, better infrastructure, and more effective extension services can enhance agricultural productivity and economic well-being in Manipur.

Table - 1: Important Parameters of the cultivators in agriculture production

Parameter	Category	No. of cultivators (in %)		Total	χ^2 - value
		Bishnupur	Thoubal		
Agricultural Productivity	High	45 (22.5)	52 (26)	97 (48.5)	
	Low	55 (27.5)	48 (24)	103 (51.5)	
Educational standard of cultivators	High school	45 (22.5)	47(23.5)	92(46.0)	1.20; P>0.05
	Higher secondary	30 (15.0)	28 14.0)	58 (29.0)	
	College	22 (11.0)	24 (12.0)	46 (23.0)	
	University	3 (1.5)	1 (.5)	4 (2.0)	
Land holding	Landless	20 (10.0)	17 (8.5)	37 (18.5)	1.11; P>0.05
	Small	35 (17.5)	38 (19.0)	73 (36.5)	
	Medium	29 (14.5)	25 (12.5)	54 (27.0)	
	Large	16 (8.0)	20 (10.0)	36 (18.0)	
Training attended	No	85 (42.5)	90 (45.0)	175 (87.5)	
	Yes	15 (7.5)	10 (5.0)	25 (12.5)	
Disposal time	Immediately after harvest	50 (25.0)	50 (25.0)	100 (50.0)	2.37; P>0.05
	When there is demand	27 (13.5)	34 (17.0)	61 (30.5)	
	When prices are fair	15 (7.5)	9 (4.5)	24 (12.0)	
	Others	8 (4.0)	7 (3.5)	15 (7.5)	
Channel selection	Commission agents	53 (26.5)	40 (20.0)	93 (46.5)	5.23; P>.05
	Itinerate dealers	8 (4.0)	5 (2.5)	13 (6.5)	
	Village merchants/ traders	39 (19.5)	55 (27.5)	94 (47.0)	
Total		100 (50.0)	100 (50.0)	200 (100.0)	

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