

Agricultural Marketing Systems and Productivity Performance of Cultivators in Manipur

Dr. Moibungkhongbam Damudor Singh

Assistant Professor, Department of Geography

Thoubal College, Thoubal (Manipur - India)

Email: damudor@gmail.com

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ABSTRACT

Agricultural marketing plays a pivotal role in enhancing agricultural productivity, farm income, and rural development by facilitating the efficient movement of agricultural produce from producers to consumers. The present study examines the status of agricultural marketing and its implications for agricultural productivity in Manipur, with special reference to Bishnupur and Thoubal districts. The study is based on both primary and secondary data. Primary data were collected from 300 cultivators, comprising 150 respondents each from the selected districts, through structured interview schedules, personal interviews, and field observations during 2023-24. Secondary information was obtained from government reports, statistical publications, agricultural census records, and relevant research studies. Descriptive statistical techniques and the Chi-square (χ^2) test were employed to analyse the data using IBM-SPSS software. The findings reveal that agricultural productivity in the study area remains moderate, with 52.0 per cent of cultivators belonging to the low-productivity category. Most respondents possessed education up to the high school level, while small and fragmented landholdings constituted the dominant agrarian structure. The study further found that only a small proportion of cultivators had received formal agricultural training, indicating limited access to extension services and modern agricultural knowledge. Nearly half of the farmers sold their produce immediately after harvest, largely due to inadequate storage facilities, urgent financial requirements, and limited bargaining power. Commission agents and village traders were identified as the principal marketing intermediaries, reflecting the continued dependence on traditional marketing channels. Statistical analysis showed no significant inter-district variation in productivity, educational attainment, landholding patterns, training exposure, disposal practices, or marketing channels. The study concludes that inadequate marketing infrastructure, limited institutional support, fragmented holdings, and weak market integration adversely affect agricultural productivity and farm income. Strengthening storage facilities, transportation networks, farmer training programmes, cooperative marketing institutions, and digital market information systems is essential for improving marketing efficiency, enhancing productivity, and promoting sustainable agricultural development in Manipur.

Keywords Agricultural Marketing; Agricultural Productivity; Cultivators; Market Infrastructure; Manipur

INTRODUCTION

Agriculture continues to be the backbone of many developing economies, providing livelihoods, food security, and raw materials for industries. However, agricultural production alone cannot contribute effectively to economic development unless the produce reaches consumers through an efficient

marketing system. Marketing serves as the crucial link between producers and consumers by facilitating the movement, exchange, and distribution of goods and services. According to Sinha (1976), marketing ensures that products are transferred to consumers at the right time and place, thereby satisfying human wants and enhancing economic welfare. Similarly, Macmillan (1980) defined marketing as the collection of business activities involved in moving goods and services from production to final consumption. In the agricultural sector, marketing assumes special significance because agricultural products are often perishable, bulky, and produced in dispersed rural locations. An efficient marketing system not only ensures the availability of products to consumers but also provides farmers with incentives to increase production. Consequently, agricultural marketing has emerged as an essential component of rural development and national economic growth.

The importance of agricultural marketing increased significantly with the commercialization and modernization of agriculture. Although technological advancements such as improved seeds, fertilizers, irrigation facilities, and mechanization have enhanced agricultural productivity, scholars have argued that these gains cannot be sustained without efficient marketing support. Mellor (1966) emphasized that market infrastructure and institutional arrangements are fundamental prerequisites for agricultural transformation and rural development. In India, the National Commission on Agriculture (1976) highlighted the necessity of creating efficient marketing facilities to ensure fair prices for farmers and a stable supply of agricultural commodities to consumers. Agricultural marketing encompasses a wide range of activities, including assembling, grading, processing, storage, transportation, and distribution of farm products. According to Acharya and Agarwal (2011), agricultural marketing is a comprehensive system that begins with farmers' production decisions and continues until the produce reaches the final consumer. It also facilitates the supply of farm inputs and strengthens linkages between agricultural and non-agricultural sectors. Efficient marketing systems reduce post-harvest losses, improve price realization, and enhance farmers' income, thereby contributing to overall agricultural development and poverty reduction.

In recent decades, agricultural marketing has undergone significant transformation due to globalization, market reforms, and technological innovations. The rapid expansion of information and communication technologies has improved market accessibility, transparency, and efficiency. Reardon et al. (2019) observed that modern value chains and digital platforms have revolutionized agricultural markets by improving coordination among producers, traders, processors, and consumers. Mobile-based market information systems, electronic trading platforms, and digital payment mechanisms have enabled farmers to access real-time market information and obtain better prices for their produce. At the same time, concerns regarding sustainability have gained prominence in agricultural marketing. Growing consumer awareness of environmental protection, food safety, and ethical production practices has encouraged the promotion of organic and eco-friendly agricultural products. Efficient marketing systems are therefore increasingly expected to balance economic profitability with social and environmental sustainability. In a country like India, where a large proportion of the population depends on agriculture, the development of robust marketing infrastructure remains critical for improving farm incomes, reducing regional disparities, and ensuring food security. Therefore, agricultural marketing is now recognized not merely as a mechanism for product exchange but as a strategic instrument for agricultural modernization, rural prosperity, and inclusive economic development.

LITERATURE REVIEW

Agricultural marketing has received considerable attention from researchers due to its critical role in enhancing farm income, agricultural productivity, and rural development. Ramkishan (2008) examined the challenges of rural and agricultural marketing in India and emphasized the need for

improved grading, storage, transportation, and rural financial services to strengthen market efficiency. Mandal et al. (2009) observed that agriculture in the North-Eastern Region (NER) was undergoing structural transformation and possessed substantial growth potential if supported by appropriate policy interventions. Singh (2010) highlighted the significance of agricultural and allied sector development in improving the socio-economic conditions of tribal and non-tribal communities in Manipur. Jha and Srinivasan (2012) found that agricultural marketing reforms positively influenced farmers' income and productivity by improving market accessibility and reducing transaction costs. Similarly, Birthal et al. (2013) emphasized that efficient market linkages and value-chain integration were essential for increasing agricultural competitiveness and farm profitability. Sarkar and Roy (2014) further demonstrated that Information and Communication Technology (ICT)-based market information systems enhanced farmers' bargaining power and facilitated informed marketing decisions. These studies collectively indicate that marketing infrastructure and institutional support are indispensable for agricultural growth and rural transformation.

Several scholars have examined the role of infrastructure, value addition, and institutional mechanisms in improving agricultural marketing outcomes. Chand (2015) argued that market reforms and investments in agricultural infrastructure were crucial for improving price realization and reducing market inefficiencies. Patil et al. (2016) investigated the potential of agro-processing industries in North-Eastern India and reported that value addition through processing could substantially reduce post-harvest losses and increase farmers' income. Barrett et al. (2017) emphasized that well-functioning agricultural markets improve resource allocation, production efficiency, and household welfare. Kumar and Mishra (2018) analysed government initiatives aimed at strengthening agricultural marketing infrastructure and concluded that investments in storage facilities, transportation networks, and market linkages significantly improved agricultural performance. Reardon et al. (2019) highlighted the transformative impact of modern value chains and digital technologies on agricultural markets, noting that these innovations enhanced transparency, coordination, and market access. Chatterjee and Gupta (2020) studied Farmer Producer Organizations (FPOs) in North-Eastern India and found that collective action strengthened farmers' bargaining capacity, improved access to credit, and facilitated better market integration. Likewise, Chandrasekhar and Ghosh (2020) reported that institutional innovations and cooperative marketing structures played a vital role in reducing the exploitation of small and marginal farmers by intermediaries.

Recent literature has increasingly focused on sustainability, digitalization, and productivity enhancement within agricultural marketing systems. Kumar and Singh (2021) observed that growing consumer demand for organic and environmentally sustainable products had encouraged the adoption of sustainable marketing practices. Dev and Rao (2021) emphasized that efficient agricultural marketing systems contribute directly to food security, income generation, and rural employment. Narayanan and Saha (2021) found that digital platforms and electronic marketing systems improved price discovery and reduced information asymmetry among farmers. Sharma et al. (2022) highlighted the importance of integrating modern technologies with traditional farming systems to improve agricultural productivity and marketing efficiency in the North-Eastern states. Similarly, Das and Borthakur (2022) reported that inadequate infrastructure, fragmented landholdings, and weak market networks remained major constraints to agricultural development in the region. Although these studies have significantly advanced understanding of agricultural marketing, most have focused on policy reforms, infrastructure development, digital technologies, and farmer organizations at national or regional levels. Comprehensive micro-level studies examining the relationship between agricultural marketing and productivity in Manipur remain limited. Therefore, there is a need for empirical investigations that assess how marketing facilities, institutional support, and market accessibility influence agricultural productivity and farmers' livelihoods in the state.

OBJECTIVES

The present study seeks to examine the status, efficiency, and implications of agricultural marketing for agricultural productivity in Manipur, with particular reference to Bishnupur and Thoubal districts. It aims to assess the production patterns and productivity levels of major agricultural crops cultivated in the study area and to analyse the existing marketing channels, including assembling, transportation, storage, pricing, and distribution of agricultural produce. The study further investigates the socio-economic, infrastructural, and institutional factors influencing agricultural marketing and productivity among cultivators. It also identifies the major constraints faced by farmers in marketing their agricultural commodities and evaluates their effects on farm income and productivity. Additionally, the study explores the relationship between marketing facilities and agricultural productivity and proposes suitable policy interventions and remedial measures to improve marketing efficiency, enhance farm returns, and promote sustainable agricultural development in Manipur.

MATERIALS AND METHODS

The present study employed a descriptive-cum-analytical research design to examine the relationship between agricultural marketing and agricultural productivity in Manipur, with special reference to Bishnupur and Thoubal districts. These districts were purposively selected due to their agricultural importance, extensive cultivation practices, and active involvement in agricultural marketing activities. Both primary and secondary data were utilized for the study. Primary data were collected during the agricultural survey conducted in 2023-24 from 300 cultivators, comprising 150 respondents each from Bishnupur and Thoubal districts. The respondents were selected through a simple random sampling technique to ensure adequate representation of farming households. Information relating to crop production, productivity, marketing channels, transportation, storage facilities, price realization, and marketing constraints was gathered through structured interview schedules, personal interviews, field observations, and discussions with farmers. Secondary data were obtained from various published and unpublished sources, including reports of the Department of Agriculture, Government of Manipur, Directorate of Economics and Statistics, Statistical Abstract of Manipur, Apex Marketing Societies, Agricultural Census reports, research journals, books, and other official publications related to agricultural marketing and productivity. The collected data were systematically coded, classified, and tabulated for analysis. Descriptive statistical tools such as frequencies, percentages, means, and standard deviations were used to summarize the data. To examine associations and variations among selected variables, the Chi-square (χ^2) test was applied. Statistical significance was assessed at the 5 per cent level, with $P < 0.05$ considered significant and $P > 0.05$ considered insignificant. All data processing and statistical analyses were performed using IBM-SPSS software, and the findings are presented through appropriate tables and interpretations.

ANALYSIS AND RESULTS

Table 1 presents the socio-economic, agricultural, and marketing characteristics of 300 cultivators selected from Bishnupur and Thoubal districts of Manipur. The results reveal that agricultural productivity among the respondents was moderately distributed, with 48.0 per cent reporting high productivity and 52.0 per cent reporting low productivity. In Bishnupur, 22.7 per cent of cultivators belonged to the high-productivity category compared to 25.3 per cent in Thoubal, while low productivity was reported by 27.3 per cent and 24.7 per cent of cultivators, respectively. The chi-square value ($\chi^2 = 0.85$; $P > 0.05$) indicates that the variation between the two districts was statistically insignificant. This suggests that both districts exhibit similar agricultural productivity patterns despite differences in local environmental and infrastructural conditions. The educational profile of cultivators further indicates a moderate level of human capital development. A majority of the respondents (43.6%) had education up to the high school level, followed by higher secondary (27.0%),

college education (26.4%), and university education (3.0%). The insignificant chi-square value ($\chi^2 = 1.35$; $P > 0.05$) suggests that educational attainment among cultivators does not differ significantly between the two districts.

The distribution of landholdings shows that small farmers constitute the largest category, accounting for 37.0 per cent of the total respondents, followed by medium farmers (27.7%), landless cultivators (18.0%), and large farmers (17.3%). This pattern reflects the predominance of small and fragmented agricultural holdings in the study area, a characteristic feature of Manipur's agrarian structure. The observed variation in landholding size between Bishnupur and Thoubal was statistically insignificant ($\chi^2 = 1.28$; $P > 0.05$), indicating a similar land ownership pattern across the districts. Another noteworthy finding concerns agricultural training. Only 14.0 per cent of cultivators reported having attended any form of agricultural training, whereas an overwhelming majority (86.0%) had not received such training. The low participation rate in training programmes highlights limited exposure to modern farming practices, marketing strategies, and technological innovations. The chi-square test ($\chi^2 = 1.00$; $P > 0.05$) further confirms that training opportunities are similarly inadequate in both districts. These findings suggest that insufficient institutional support and extension services may constrain improvements in productivity and marketing efficiency among cultivators.

Table 1: Socio-Economic, Agricultural and Marketing Characteristics of Cultivators

Parameter	Category	No. of Cultivators (%)		Total	χ^2 -value
		Bishnupur	Thoubal		
Agricultural Productivity	High	68 (22.7)	76 (25.3)	144 (48.0)	0.85; $P > 0.05$
	Low	82 (27.3)	74 (24.7)	156 (52.0)	
Educational Standard of Cultivators	High School	64 (21.3)	67 (22.3)	131 (43.6)	1.35; $P > 0.05$
	Higher Secondary	42 (14.0)	39 (13.0)	81 (27.0)	
	College	38 (12.7)	41 (13.7)	79 (26.4)	
	University	6 (2.0)	3 (1.0)	9 (3.0)	
Land Holding	Landless	29 (9.7)	25 (8.3)	54 (18.0)	1.28; $P > 0.05$
	Small	53 (17.7)	58 (19.3)	111 (37.0)	
	Medium	44 (14.7)	39 (13.0)	83 (27.7)	
	Large	24 (8.0)	28 (9.3)	52 (17.3)	
Training Attended	No	126 (42.0)	132 (44.0)	258 (86.0)	1.00; $P > 0.05$
	Yes	24 (8.0)	18 (6.0)	42 (14.0)	
Disposal Time	Immediately after Harvest	74 (24.7)	72 (24.0)	146 (48.7)	2.65; $P > 0.05$
	When there is Demand	42 (14.0)	50 (16.7)	92 (30.7)	
	When Prices are Fair	22 (7.3)	17 (5.7)	39 (13.0)	
	Others	12 (4.0)	11 (3.6)	23 (7.6)	
Channel Selection	Commission Agents	78 (26.0)	63 (21.0)	141 (47.0)	5.47; $P > 0.05$
	Itinerate Dealers	12 (4.0)	9 (3.0)	21 (7.0)	

	Village Merchants/Traders	60 (20.0)	78 (26.0)	138 (46.0)	
Total		150 (50.0)	150 (50.0)	300 (100.0)	

The marketing behaviour of cultivators reveals important insights into the disposal and distribution of agricultural produce. Nearly half of the respondents (48.7%) sold their produce immediately after harvest, while 30.7 per cent disposed of their products when market demand arose and only 13.0 per cent waited for favourable prices. This tendency to sell immediately after harvest may be attributed to inadequate storage facilities, urgent cash requirements, and limited bargaining power. The insignificant chi-square value ($\chi^2 = 2.65$; $P > 0.05$) indicates similar disposal practices in both districts. Regarding marketing channels, commission agents (47.0%) and village merchants/traders (46.0%) were the dominant intermediaries used by cultivators, whereas only 7.0 per cent depended on itinerant dealers. The prevalence of intermediaries suggests that farmers largely rely on traditional marketing networks rather than organized or cooperative marketing systems. The variation in channel selection was also statistically insignificant ($\chi^2 = 5.47$; $P > 0.05$). Hence, the results indicate that cultivators in Bishnupur and Thoubal share comparable socio-economic characteristics, agricultural conditions, and marketing practices. The predominance of small holdings, limited training exposure, immediate post-harvest sales, and dependence on intermediaries collectively point to structural constraints that may adversely affect both agricultural productivity and marketing efficiency in the study area.

DISCUSSION

The findings of the study reveal that agricultural productivity in Bishnupur and Thoubal districts remains moderate, with more than half of the cultivators (52.0%) falling into the low-productivity category. The absence of statistically significant differences between the two districts suggests that cultivators are exposed to similar socio-economic, institutional, and infrastructural conditions. The predominance of respondents with education up to the high school level and the very low proportion of university-educated cultivators indicate limited human capital development in the agricultural sector. Education plays a vital role in the adoption of improved farming practices, market information, and technological innovations. The findings support the observations of Jha and Srinivasan (2012), who reported that improved market access and awareness contribute significantly to higher productivity and farm income. Similarly, Sarkar and Roy (2014) emphasized that access to information and communication technologies enhances farmers' decision-making abilities and strengthens their bargaining power in agricultural markets. The dominance of small and fragmented landholdings observed in the present study is also consistent with the findings of Das and Borthakur (2022), who identified fragmented land ownership as a major constraint to agricultural development in the North-Eastern Region. Small farm sizes often limit economies of scale, mechanization, and investment in modern technologies, thereby restricting productivity growth. Furthermore, the extremely low participation of cultivators in agricultural training programmes reflects inadequate extension support and institutional outreach. This finding corroborates the views of Sharma et al. (2022), who argued that productivity improvements in the North-Eastern states depend largely on the effective dissemination of modern agricultural knowledge and technologies through training and extension services. Therefore, the moderate productivity levels observed in the study area appear to be closely linked with limited educational attainment, fragmented landholdings, and insufficient exposure to modern agricultural practices.

The marketing characteristics of cultivators further highlight structural weaknesses in the agricultural marketing system of Manipur. Nearly half of the respondents sold their produce immediately after harvest, indicating their inability to store produce and wait for favourable market prices. Such

behaviour may be attributed to inadequate storage facilities, urgent household cash requirements, and limited access to institutional credit. These findings are in agreement with Ramkishan (2008), who stressed the importance of strengthening storage, transportation, and rural financial systems to improve marketing efficiency. Similarly, Chand (2015) and Kumar and Mishra (2018) emphasized that investments in market infrastructure are essential for improving price realization and reducing post-harvest losses. The heavy dependence on commission agents and village traders observed in the study suggests that cultivators continue to rely on traditional marketing channels, which often reduce farmers' bargaining power and profit margins. This finding supports the observations of Chatterjee and Gupta (2020), who noted that collective marketing through Farmer Producer Organizations can enhance market access, strengthen bargaining capacity, and improve income generation among small farmers. Likewise, Chandrasekhar and Ghosh (2020) argued that cooperative and institutional marketing mechanisms are necessary to reduce the exploitation of cultivators by intermediaries. The results also resonate with the broader arguments of Reardon et al. (2019), who highlighted the importance of modern value chains, digital marketing platforms, and improved market integration in enhancing agricultural efficiency and profitability. The present research demonstrates that agricultural productivity and marketing efficiency in Bishnupur and Thoubal are closely interconnected. The prevalence of small holdings, inadequate training, poor storage facilities, immediate post-harvest sales, and dependence on intermediaries collectively constrain the economic benefits derived from agriculture. Strengthening marketing infrastructure, promoting farmer organizations, expanding extension services, and improving access to market information and institutional support are therefore essential for achieving sustainable agricultural development and enhancing farmers' livelihoods in Manipur.

CONCLUSION

The present study examined the relationship between agricultural marketing and agricultural productivity in Manipur, with special reference to Bishnupur and Thoubal districts. The findings reveal that agriculture continues to be the principal livelihood activity in the study area; however, its productivity and profitability are constrained by several marketing-related challenges. The analysis showed that a slight majority of cultivators belonged to the low-productivity category, while educational attainment remained relatively modest, with most farmers educated only up to the high school level. Small and fragmented landholdings dominated the agrarian structure, limiting the scope for mechanization and large-scale agricultural operations. The study further revealed that participation in agricultural training programmes was very low, indicating inadequate extension support and limited exposure to improved production and marketing practices. The marketing behaviour of cultivators demonstrated a strong tendency to dispose of produce immediately after harvest, largely due to inadequate storage facilities, urgent financial needs, and weak bargaining capacity. Commission agents and village traders emerged as the principal marketing intermediaries, reflecting the continued dependence of farmers on traditional marketing channels.

The study concludes that agricultural productivity and marketing efficiency are closely interconnected and mutually reinforcing. Although Bishnupur and Thoubal districts exhibited no statistically significant differences in socio-economic, agricultural, and marketing characteristics, both districts face common structural constraints that adversely affect farm income and productivity. Limited training opportunities, fragmented landholdings, inadequate storage and transportation facilities, poor market infrastructure, and excessive dependence on intermediaries reduce farmers' ability to obtain remunerative prices for their produce. Therefore, strengthening agricultural marketing systems through improved market infrastructure, scientific storage facilities, rural transportation networks, digital market information services, and institutional credit support is essential. The promotion of Farmer Producer Organizations (FPOs), cooperative marketing societies, and regular farmer training programmes can enhance bargaining power, market access, and adoption of modern agricultural

practices. Sustainable improvements in agricultural productivity in Manipur will depend not only on technological advancements in farming but also on the development of an efficient, transparent, and farmer-friendly marketing system capable of ensuring better returns, rural prosperity, and long-term agricultural development.

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