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### An economic analysis on marketing of organic manure (Oorja) in Ghazipur district of Uttar Pradesh

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#### Abstract

The present study had been undertaken to analyse the marketing system of Oorja organic manure in Ghazipur district of Uttar Pradesh with a focus on marketing costs, margins, price spread, and efficiency across different channels. Organic manure had been recognised as an essential input for sustainable agriculture due to its role in improving soil fertility, structure, and environmental quality. The study had employed a combination of purposive and random sampling techniques, selecting 120 farmers along with intermediaries including wholesalers, retailers, and consumers. Primary data had been collected through personal interviews, while secondary data had been obtained from relevant records and literature. The analysis had been conducted for the agricultural year 2025–2026 using standard marketing indicators. Two marketing channels were identified: Channel I (Producer–Wholesaler–Consumer) and Channel II (Producer–Wholesaler–Retailer–Consumer). The findings had revealed that the net price received by producers remained identical in both channels; however, marketing costs, margins, and price spread were higher in Channel II due to the presence of an additional intermediary. Channel I exhibited lower marketing costs (Rs. 64) and a smaller price spread (Rs. 154), along with higher marketing efficiency (4.17 per cent). In contrast, Channel II showed higher marketing costs (Rs. 79), greater price spread (Rs. 234), and lower efficiency (2.74 per cent). The study had concluded that shorter marketing channels were more efficient and beneficial for producers, highlighting the need for reducing intermediaries to enhance farmers' income and improve market performance.

**Keywords:** Organic manure, Oorja, marketing efficiency, price spread, marketing channels

#### Introduction

Organic manure had been recognised as a vital component of sustainable agriculture due to its role in improving soil fertility, structure, and biological activity. It had been derived from natural sources such as farmyard manure, compost, green manure, and vermicompost, thereby providing essential macro- and micronutrients in a slow and steady manner. Unlike chemical fertilisers, organic manure had enhanced soil organic carbon, improved moisture retention, and promoted beneficial microbial populations, which collectively contributed to long-term soil health and productivity. It had also reduced environmental degradation by minimising nutrient leaching, soil erosion, and pollution, thus supporting ecological balance. In recent years, commercially formulated organic inputs such as Oorja Organic Manure had gained attention among farmers for their standardised composition and ease of application. Oorja Organic Manure had been developed to enrich soil with humic substances and essential nutrients while improving soil aeration and water-holding capacity. It had also been observed to enhance crop growth, yield quality, and resistance to certain soil-borne stresses. Furthermore, the use of such organic formulations had aligned with the principles of sustainable and climate-resilient agriculture by

reducing dependence on synthetic inputs. Therefore, the integration of traditional organic manures with improved products like Oorja Organic Manure had been considered an effective strategy for maintaining soil health and ensuring sustainable agricultural production systems.

#### Research Methodology

The selection of the district, blocks, villages, and respondents had been undertaken through a combination of purposive and random sampling methods. Ghazipur district had been intentionally chosen in order to reduce logistical constraints and time-related limitations encountered during the investigation. Within the district, Devkali block had been purposively selected owing to its relatively higher concentration of farmers engaged in wheat and paddy cultivation. A complete list of villages within the selected block had then been prepared, from which five per cent of villages, characterised by a comparatively large number of wheat and paddy growers, had been chosen using random sampling techniques. Thereafter, a comprehensive list of all wheat and paddy cultivators in the selected villages had been compiled and stratified into five categories based on landholding size: marginal (below 1 hectare), small (1–2 hectares), semi-medium (2–4 hectares), medium (4–10

hectares), and large (above 10 hectares). From this sampling frame, a total of 120 farmers had been selected through proportionate random sampling. Additionally, 10 wholesalers, 5 retailers, and 10 consumers had been selected to examine marketing costs, margins, price spread, and marketing efficiency within the study area. Primary data had been collected through direct personal interviews using a well-structured schedule, while secondary data had been obtained from books, academic journals, reports, and official records maintained at district and block headquarters. The data thus collected had been analysed using appropriate statistical techniques, and the results corresponded to the agricultural year 2025–2026.

### Analytical Tools

1. Marketing Cost:  $C = C_f + C_{m1} + C_{m2} + C_{m3} + \dots + C_{mn}$
2. Market Margin:  $AMI = P_{ri} - (P_{pi} + C_{mi})$
3. Price Spread: Marketing Cost + Market Margin

Marketing Efficiency:  $= \frac{\text{Price received by producer}}{\text{Marketing Cost} + \text{Marketing Margin}}$

### Results and Discussion

**Table 1:** Analysis of Marketing Costs, Margins, Price Spread, and Efficiency of Oorja Organic Manure in Channel I (Producer–Wholesaler–Consumer)

| S. No. | Particulars                                     | Oorja Organic Manure (Rs. per 10 kg bag) |
|--------|-------------------------------------------------|------------------------------------------|
| 1      | Sale price received by producer from wholesaler | 685                                      |
| 2      | Costs borne by producer                         |                                          |
| i      | Cost of packaging labour                        | 4.00                                     |
| ii     | Cost of packaging materials                     | 5.00                                     |
| iii    | Transportation expenses                         | 6.00                                     |
| iv     | Market-related charges                          | 7.00                                     |
| v      | Labour expenses                                 | 4.00                                     |
| vi     | Loading and unloading charges                   | 3.00                                     |
| vii    | Other incidental expenses                       | 13.00                                    |
|        | Total producer cost                             | 42.00                                    |
| 3      | Net amount realised by producer                 | 643                                      |
| 4      | Sale price of wholesaler to consumer            | 797                                      |
| 5      | Costs incurred by wholesaler                    |                                          |
| i      | Loading and unloading expenses                  | 2.00                                     |
| ii     | Transport to retail point                       | 1.00                                     |
| iii    | Weighing charges                                | 3.00                                     |
| iv     | Market fees                                     | 4.00                                     |
| v      | Transportation cost                             | 5.00                                     |
| vi     | Losses and miscellaneous expenses               | 7.00                                     |
|        | Total wholesaler cost                           | 22.00                                    |
| 6      | Wholesaler's margin                             | 90.00                                    |
| A      | Total marketing cost                            | 64.00                                    |
| B      | Total marketing margin                          | 90.00                                    |
| C      | Price spread                                    | 154.00                                   |
| D      | Marketing efficiency                            | 4.17%                                    |

Table 1: The information presented in Table 1 illustrated the marketing cost, margin, price spread, and efficiency of Oorja organic manure in Channel I, comprising the producer, wholesaler, and consumer. It was found that the producer sold the manure to the wholesaler at Rs. 685 per 10 kg bag, while incurring a total marketing expenditure of Rs. 42 on packing, transport, labour, and related activities. As a result, the producer realised a net return of Rs. 643.

The wholesaler subsequently sold the product to the consumer at Rs. 797, bearing an additional marketing cost of Rs. 22. The margin retained by the wholesaler amounted to Rs. 90, indicating a notable contribution to the final price. Overall, the total marketing cost in the channel was Rs. 64, whereas the aggregate marketing margin stood at Rs. 90. The price spread, representing the difference between the consumer price and the producer's net receipt, was estimated at Rs. 154. Furthermore, the marketing efficiency was calculated at 4.17 per cent, suggesting that the channel operated with relatively low efficiency.

**Table 2:** Evaluation of Marketing Costs, Margins, Price Spread, and Efficiency of Oorja Organic Manure in Channel II (Producer–Wholesaler–Retailer–Consumer)

| S. No. | Particulars                                     | Oorja Organic Manure (Rs. per 10 kg bag) |
|--------|-------------------------------------------------|------------------------------------------|
| 1      | Sale price received by producer from wholesaler | 685                                      |
| 2      | Expenses incurred by producer                   |                                          |
| i      | Packing labour cost                             | 4.00                                     |
| ii     | Cost of packing materials                       | 5.00                                     |
| iii    | Transport charges                               | 6.00                                     |
| iv     | Market-related expenses                         | 7.00                                     |
| v      | Labour charges                                  | 4.00                                     |
| vi     | Loading and unloading expenses                  | 3.00                                     |
| vii    | Other incidental expenses                       | 13.00                                    |
|        | Total producer cost                             | 42.00                                    |
| 3      | Net return to producer                          | 643                                      |
| 4      | Wholesaler's sale price to retailer             | 787                                      |
| 5      | Expenses incurred by wholesaler                 |                                          |
| i      | Loading and unloading charges                   | 2.00                                     |
| ii     | Carriage to shop                                | 1.00                                     |
| iii    | Labour expenses                                 | 3.00                                     |
| iv     | Market fees                                     | 4.00                                     |
| v      | Transport cost                                  | 5.00                                     |
| vi     | Losses and miscellaneous expenses               | 7.00                                     |
|        | Total wholesaler cost                           | 22.00                                    |
| 6      | Wholesaler's margin                             | 80.00                                    |
| 7      | Retailer's sale price to consumer               | 877                                      |
| 8      | Expenses incurred by retailer                   |                                          |
| i      | Loading and unloading charges                   | 1.50                                     |
| ii     | Carriage to shop                                | 0.75                                     |
| iii    | Labour charges                                  | 1.75                                     |
| iv     | Market charges                                  | 3.00                                     |
| v      | Transportation cost                             | 3.50                                     |
| vi     | Losses and miscellaneous expenses               | 4.50                                     |
|        | Total retailer cost                             | 15.00                                    |
| 9      | Retailer's margin                               | 75.00                                    |
| A      | Total marketing cost                            | 79.00                                    |
| B      | Total marketing margin                          | 155.00                                   |
| C      | Price spread                                    | 234.00                                   |
| D      | Marketing efficiency                            | 2.74%                                    |

Table 2: The data presented in Table 2 depicted the marketing cost, margin, price spread, and marketing efficiency of Oorja organic manure in Channel II, comprising the producer, wholesaler, retailer, and consumer. It was observed that the producer sold the product to the wholesaler at Rs. 685 per 10 kg bag, incurring a total expenditure of Rs. 42, which resulted in a net realisation of Rs. 643. The wholesaler subsequently transferred the product to the retailer at Rs. 787, bearing a marketing cost of Rs. 22 and retaining a margin of Rs. 80. Thereafter, the

retailer sold the product to the final consumer at Rs. 877, incurring a marketing cost of Rs. 15 and earning a margin of Rs. 75. The aggregate marketing cost within the channel amounted to Rs. 79, while the total marketing margin was Rs. 155. The price spread, defined as the difference between the price paid by the consumer and the net amount received by the producer, was estimated at Rs. 234, which was comparatively higher than that observed in Channel I, indicating a wider gap in the price transmission process. Furthermore, the marketing efficiency was calculated at 2.74 per cent, suggesting a lower level of efficiency in this channel, primarily due to the involvement of an additional intermediary.

**Table 3:** Comparative Analysis of Marketing Cost, Margin, Price Spread, and Marketing Efficiency of Oorja Organic Manure across Channel I and Channel II in the Study Area

| S. No. | Particulars                    | Channel I<br>(Rs. per 10 kg bag) | Channel II<br>(Rs. per 10 kg bag) |
|--------|--------------------------------|----------------------------------|-----------------------------------|
| 1      | Net price realised by producer | 643                              | 643                               |
| 2      | Total marketing cost           | 64                               | 79                                |
| 3      | Total marketing margin         | 90                               | 155                               |
| 4      | Price spread                   | 154                              | 234                               |
| 5      | Marketing efficiency           | 4.17%                            | 2.74%                             |

Table 3: The data presented in Table 4.10 provided a comparative assessment of marketing cost, marketing margin, price spread, and marketing efficiency of Oorja organic manure across Channel I and Channel II in the study area. It was evident that the net amount realised by the producer remained identical in both channels at Rs. 643 per 10 kg bag, indicating uniformity in the initial transaction stage. However, the overall marketing cost was comparatively higher in Channel II (Rs. 79) than in Channel I (Rs. 64), primarily due to the presence of an additional intermediary, namely the retailer. In a similar manner, the total marketing margin was substantially greater in Channel II (Rs. 155) as compared to Channel I (Rs. 90), reflecting increased accruals to market intermediaries. The price spread was also notably wider in Channel II (Rs. 234) than in Channel I (Rs. 154), signifying a larger disparity between the consumer's purchase price and the producer's net receipt. Moreover, the level of marketing efficiency was found to be higher in Channel I (4.17 per cent) relative to Channel II (2.74 per cent), thereby indicating that Channel I operated with comparatively greater efficiency.

### Conclusion

The study had provided a comprehensive economic evaluation of the marketing system of Oorja organic manure in Ghazipur district, revealing clear differences in the performance of alternative marketing channels. It had been observed that although the net price realised by producers remained constant across both channels, the structure and functioning of the marketing system significantly influenced overall efficiency and returns. Channel I, involving only the producer and wholesaler before reaching the consumer, had demonstrated relatively lower marketing costs and margins, which resulted in a narrower price spread and higher marketing efficiency. In contrast, Channel II, characterised by the inclusion of an additional intermediary in the form of

a retailer, had led to increased cumulative costs and margins, thereby widening the gap between the consumer price and the producer's net receipt. This had ultimately reduced marketing efficiency and indicated the presence of avoidable inefficiencies within the system. The findings had underscored that the length of the marketing channel played a crucial role in determining the economic benefits accruing to producers as well as the affordability for consumers. Furthermore, the higher margins retained by intermediaries in Channel II suggested the need for improved regulation and transparency in pricing mechanisms. The study had therefore highlighted the importance of promoting shorter and more direct marketing channels, strengthening producer linkages with markets, and encouraging institutional support such as cooperatives or farmer-producer organisations. Such measures had the potential to reduce unnecessary intermediation, lower marketing costs, and enhance income realisation for farmers while ensuring reasonable prices for consumers. Overall, the study had emphasised that an efficient marketing system was essential for the sustainable adoption and expansion of organic inputs like Oorja manure in agriculture.

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