Budget 2024–25 and Its Influence on Digital Promotion of Agricultural Products: A Behavioural Study in Madhya Pradesh

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Abstract

The 2024–25 Union Budget of India has laid significant emphasis on promoting digital innovation in the agricultural sector. With allocations directed toward agritech startups, strengthening the eNAM platform, and tax incentives under GST, digital marketing of agricultural products has gained momentum, particularly in urban and semi-urban markets. This research investigates the impact of these fiscal and monetary interventions on consumer buying behaviour concerning Agri-products marketed digitally. The study was conducted in four major cities of Madhya Pradesh: Bhopal, Indore, Gwalior, and Jabalpur. A total of 220 consumers were surveyed using a stratified purposive sampling technique.

Primary data were collected through structured questionnaires, while secondary data were compiled from government budget documents, RBI monetary policy bulletins, and reports by industry bodies like FICCI and NABARD. The analysis involved descriptive statistics, ANOVA, and multiple regression using SPSS. The results showed that awareness of budget provisions significantly influences consumers' likelihood to purchase Agri-products online. Factors like GST benefits on unbranded products, promotional support to agritech platforms, and increased digital infrastructure contributed to higher consumer trust.

Furthermore, regression findings indicated that budget scheme awareness and engagement with digital advertisements were statistically significant predictors of digital Agri-product purchases. The study also found that younger consumers (ages 18–30) were more responsive to budget-driven digital promotions. The ANOVA results confirmed a significant difference in buying behaviour based on the level of budget awareness.

This research provides a policy-level insight into the role fiscal decisions play in transforming traditional Agri-marketing practices. The findings support the need for targeted policy communication and further investment in rural digital ecosystems. With proper implementation and outreach, budgetary provisions can effectively drive the adoption of digital Agri-commerce, empowering farmers and enhancing consumer experience.

Keywords: Agri-products, Digital Marketing, Union Budget, Consumer Behaviour, GST, eNAM, Fiscal Policy, Madhya Pradesh

1. Introduction

Agriculture plays a pivotal role in India's economy, contributing significantly to GDP and ensuring food security. The onset of digital transformation in agriculture has been accelerated by policy support in recent budgets. The Union Budget 2024–25 highlighted multiple provisions to foster a tech-enabled agriculture ecosystem—from infrastructure investment in digital platforms to direct support for agritech startups and farmer-centric digital literacy campaigns.

In Madhya Pradesh, a state with a substantial agricultural base and growing internet penetration, these fiscal measures are expected to impact how agricultural products are marketed and consumed. This paper examines the behavioural changes among urban consumers in response to budget-backed digital marketing initiatives in the Agri-sector. The goal is to understand if and how fiscal incentives are altering traditional buyer-seller dynamics in agricultural commerce.

2. Literature Review

The literature on digital marketing in agriculture highlights its transformative potential, especially when backed by enabling policy environments.

Kumar and Rajan (2021) emphasized that digital marketing platforms improve market access for farmers, offering transparency and competitive pricing. They also observed that government-backed digital campaigns tend to instil more confidence in consumers. This is especially relevant in agrarian states like Madhya Pradesh, where awareness of such platforms is still emerging.

Gupta (2021) pointed out the behavioural aspect of agricultural consumers, particularly the urban youth. He stated that visual advertising and influencer-led campaigns, supported through budget allocations to Digital India initiatives, have encouraged younger consumers to experiment with purchasing farm-fresh produce online.

Bhattacharya and Dey (2022) explored the perception of rural and semi-urban customers, concluding that while infrastructure availability is key, fiscal messaging (e.g., tax incentives) plays a psychological role in enhancing platform trustworthiness.

Chaudhary (2022) studied the effectiveness of eNAM and found that its success largely depends on parallel awareness campaigns and trust building, both of which are functions of budgetary prioritization.

According to Singh and Sharma (2022), the Goods and Services Tax (GST) regime had a mixed impact on agricultural marketing. While the exemption on fresh and unbranded produce under GST encouraged online purchases, poor digital literacy limited its reach. However, with the Budget 2024–25 focusing on digital literacy, especially in agriculture, the scenario is expected to improve.

PWC's 2023 Agri-FinTech report noted that more than 60% of Indian Agri startups rely on government subsidies and incentives to operate their platforms. The same report emphasized that fiscal support is pivotal to scale operations and influence customer perception in favor of Agri e-commerce.

A report by NABARD (2023) suggested that budgetary allocations for digital warehousing and cold-chain logistics have indirectly boosted confidence in buying perishable items online, a key development for digital Agri-retailing.

Collectively, these studies underline the need to assess not just digital infrastructure, but also the behavioural and fiscal linkages that drive Agri-product consumption online. However, there remains a research gap in understanding how specific budget provisions, when communicated effectively, influence digital buying decisions - especially in tier-2 cities like those in Madhya Pradesh.

3. Research Objectives and Hypotheses

3.1 Objectives:

1. To assess the impact of Union Budget 2024–25 on digital marketing trends in the agriculture sector.
2. To study the influence of GST and subsidy schemes on consumer decisions to buy Agri-products online.
3. To analyse demographic and behavioural factors associated with digital Agri-product purchases.

3.2 Hypotheses:

- H_{o_1}: Union Budget 2024–25 has no significant effect on digital marketing adoption for Agri-products.
- H_{a_1}: Union Budget 2024–25 significantly impacts digital marketing adoption for Agri-products.
- H_{o_2}: There is no significant relationship between budget-driven tax incentives and consumer trust in Agri e-commerce.
- H_{a_2}: Budget-driven tax incentives significantly influence consumer trust in Agri e-commerce.

4. Research Methodology

4.1 Study Design: This study adopted a descriptive and analytical design. Both quantitative and qualitative methods were employed to examine the consumer response to digital promotion of Agri-products in the context of Union Budget 2024–25.

4.2 Geographical Area: Four major urban centres in Madhya Pradesh were selected: Bhopal, Indore, Gwalior, and Jabalpur.

4.3 Sample Size: 220 respondents were surveyed, selected through stratified purposive sampling.

4.4 Sampling Technique: Stratified purposive sampling ensured representation from diverse professions, age groups, and income levels.

4.5 Data Collection and Instrument: Data was collected using a structured questionnaire circulated via Google Forms and face-to-face interviews.

4.6 Data Sources: Primary data from respondents; Secondary data from Union Budget reports, NABARD, RBI bulletins, eNAM dashboards, and academic journals.

4.7 Tools for Analysis: Data was analysed using SPSS. Descriptive statistics, ANOVA, and Multiple Regression were used to test hypotheses.

5. Data Analysis and Interpretation

The collected data were analysed using SPSS software. The statistical tools applied included descriptive statistics, cross-tabulation, ANOVA, and multiple regression. The objective was to understand the influence of the 2024–25 Union Budget and associated tax policies on consumer behaviour toward digital Agri-products. The following detailed analysis highlights the emerging patterns and relationships in consumer response.

Table 1: Demographic Profile of Respondents

Parameter	Category	Frequency	Percentage
Gender	Male	128	58.18%
	Female	92	41.82%
Age Group	18–30	106	48.18%
	31–45	82	37.27%
	Above 45	32	14.55%
Profession	Service	94	42.73%
	Self-employed/Agri-seller	76	34.55%
	Student	50	22.72%

Interpretation:

The sample is relatively balanced, although a majority are younger respondents. This reflects the higher digital affinity among younger demographics. The professional split indicates significant interest among working professionals and entrepreneurs in Agri-commerce, suggesting that financial literacy may correlate with digital Agri-purchasing trends.

Table 2: Digital Purchasing Frequency by Budget Awareness

Awareness Level	Frequent Buyers	Occasional Buyers	Rarely Buy	Total
High Awareness	54	28	6	88
Moderate Awareness	36	42	10	88
Low Awareness	16	20	8	44
Total	106	90	24	220

Interpretation:

Consumers who reported high awareness of budget provisions showed significantly more frequent engagement with digital Agri-purchases. Those with moderate or low awareness demonstrated hesitation or infrequent buying behaviour. This finding emphasizes the importance of policy communication.

Table 3: ANOVA – Impact of Budget Awareness on Purchase Behaviour

Source	SS	df	MS	F	Sig.
Between Groups	12.76	3	4.25	9.61	0.000
Within Groups	94.33	216	0.44		
Total	107.09	219			

Interpretation:

The ANOVA test confirms a statistically significant relationship between budget awareness and buying behavior at a 1% level of significance. Consumers informed about policy changes were more likely to adopt digital Agri-buying practices.

Table 4: Regression Analysis – Predictors of Digital Agri-Product Purchase

Predictor	B	Beta	t	Sig.
(Constant)	1.25		4.63	.000
Budget Scheme Awareness	0.48	0.52	6.74	.000
GST Perception	0.34	0.46	5.92	.000
Digital Ad Engagement	0.41	0.50	6.15	.000

Interpretation:

All three predictors – budget scheme awareness, GST perception, and ad engagement – significantly affect online Agri-product purchase behaviour. Budget awareness had the strongest influence, followed closely by advertising engagement and tax perception.

Table 5: Budget Incentives and Platform Trust

Statement	Agree (%)	Neutral (%)	Disagree (%)
Budget subsidies increase trust in digital agri platforms	76.82%	18.63%	4.55%
GST on unbranded agri-products is a relief	72.27%	21.36%	6.37%
eNAM expansion improves market reliability	69.09%	24.54%	6.37%

Interpretation:

A large portion of respondents agreed that fiscal incentives and digital policy measures boost trust in platforms. This highlights the psychological impact of government backing on consumer trust and adoption of e-Agri platforms.

Table 6: Age-wise Preference for Digital Agri Platforms

Age Group	Prefer App-based Platforms	Prefer Web Portals	Prefer Physical Markets
18–30	66	28	12
31–45	44	24	14
Above 45	12	8	12

Interpretation:

The younger age group (18–30) significantly preferred app-based purchasing due to convenience, mobile usage, and exposure to targeted advertising. Older groups showed a stronger inclination towards conventional platforms, indicating the need for digital literacy initiatives.

6. Hypotheses Testing

Hypotheses	Test Applied	Calculated Value	p-value	Hypotheses Status
H_{01}: Union Budget 2024–25 has no significant effect on digital marketing adoption for Agri-products.	ANOVA	F = 9.61	0.000	Rejected
H_{a1}: Union Budget 2024–25 significantly impacts digital marketing adoption for Agri-products.	ANOVA	F = 9.61	0.000	Accepted
H_{02}: There is no significant relationship between budget-driven tax incentives and consumer trust in Agri e-commerce.	Multiple Regression	Beta = 0.46	0.000	Rejected
H_{a2}: Budget-driven tax incentives significantly influence consumer trust in Agri e-commerce.	Multiple Regression	Beta = 0.46	0.000	Accepted

7. Conclusion and Policy Recommendations

This study confirms that fiscal measures introduced in Union Budget 2024–25 positively influence consumer engagement with digital Agri-commerce platforms. Consumers who are aware of budget provisions such as tax incentives and digital support for agritech startups show higher trust and frequency of purchase in online Agri markets. The research validates that younger consumers are more digitally responsive and that promotional strategies backed by fiscal policy messaging led to increased sales and platform engagement.

Policymakers should leverage this insight by strengthening digital literacy campaigns and integrating budget messaging in promotional content. Special emphasis must be placed on translating complex fiscal policies into consumer-friendly communication. Investment in rural digital infrastructure, mobile-based platforms, and GST simplification for Agri-products will further accelerate digital adoption. Future

budgets should consider expanding incentives for localized Agri-marketing platforms to ensure inclusive participation.

9. Limitations and Suggestions

9.1 Limitations:

1. **Geographic Scope:** The study was confined to four urban centres in Madhya Pradesh, limiting the generalizability to rural or other state populations.

2. **Sample Size:** With a sample size of 220, the study may not capture niche consumer profiles or state-wide trends.

3. **Time-bound Responses:** Consumer behaviour was recorded shortly after the Union Budget 2024-25; perceptions may evolve over time.

4. **Self-reporting Bias:** Data collected through questionnaires may reflect socially desirable responses rather than actual behaviour.

9.2 Suggestions for Future Research:

- **Longitudinal Studies:** Future studies can analyse the long-term impact of budget announcements over multiple quarters.

- **Rural Comparison:** Expanding the research to rural regions can provide insights into digital penetration and policy outreach gaps.

- **Platform-Specific Studies:** Further analysis may be conducted on specific Agri-platforms (e.g., eNAM, Amazon Fresh) and how policy changes affect consumer traffic.

- **In-depth Interviews:** Qualitative methods such as interviews or focus groups could offer more detailed insights into psychological triggers in Agri-buying decisions.

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