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EXPLORING THE INFORMATION-SEEKING BEHAVIOR OF FARMERS: A STUDY IN EASTERN UTTAR PRADESH

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Abstract

The information-seeking behavior of farmers plays a crucial role in the adoption of innovative agricultural practices and sustainable farming techniques. This study investigates the information-seeking patterns, sources, and preferences of farmers in Eastern Uttar Pradesh, focusing on how these behaviors influence their decision-making processes. The study employs a mixed-methods approach, combining survey data from 300 farmers across four districts with in-depth interviews. Results reveal that informal networks, local markets, and agricultural extension services remain primary sources of information, with ICT tools gaining prominence. The findings highlight significant barriers, including illiteracy, limited access to technology, and gender disparities, which hinder effective information dissemination. The study contributes to a deeper understanding of the challenges and opportunities in agricultural information dissemination, offering actionable recommendations to enhance information accessibility.

Keywords: Information-seeking behavior, farmers, Eastern Uttar Pradesh, agricultural extension, ICT tools, barriers

1. Introduction Agriculture remains the backbone of India's economy, with over 50% of the population dependent on it for their livelihood. The rapid advancements in technology and communication have transformed how agricultural information is disseminated and accessed. However, for smallholder farmers in rural areas, such as those in Eastern Uttar Pradesh, traditional information sources continue to dominate.

Eastern Uttar Pradesh, known for its agrarian economy, faces unique challenges such as fragmented landholdings, limited infrastructural development, and socio-cultural barriers. Farmers in this region often rely on informal networks, such as neighbors and local markets, for critical information related to crop selection, pest management, weather forecasts, and market prices. However, with the emergence of ICT tools and mobile-based applications, the information landscape is gradually evolving.

This study aims to explore the information-seeking behavior of farmers in Eastern Uttar Pradesh, identify their preferred sources of information, and analyze the barriers hindering their access to reliable and timely information. By understanding these patterns, policymakers and extension service providers can tailor their strategies to address the needs of farmers more effectively.

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2. Literature Review Numerous studies have documented the significance of information in improving agricultural productivity and resilience. Asenso-Okyere and Mekonnen (2012) emphasize the critical role of agricultural extension services in bridging the knowledge gap among farmers. They argue that timely and relevant information can significantly improve decision-making and resource management in agriculture.

Mittal and Mehar (2016) highlight the transformative potential of ICT tools, such as mobile-based applications, in disseminating agricultural information. However, they also note that socio-economic factors, such as education levels and income, influence the adoption of these technologies. Similarly, research by Patel et al. (2019) underscores the importance of incorporating gender-sensitive approaches in agricultural information dissemination, noting that women often face greater barriers in accessing information due to societal norms and limited mobility.

Research by Adhiguru et al. (2009) explores the relevance of rural extension services in disseminating critical agricultural knowledge, while Sulaiman and Van den Ban (2003) emphasize the evolution of extension systems in India. Saravanan (2010) discusses the integration of ICT in agriculture and its potential to overcome conventional barriers. Studies by Glendenning et al. (2010) and Gandhi et al. (2007) further examine the role of public and private extension services in enhancing agricultural knowledge dissemination.

Despite the growing body of literature, there is a lack of region-specific studies that address the unique socio-economic and cultural factors influencing information-seeking behavior in Eastern Uttar Pradesh. This study aims to fill this gap by providing empirical evidence and actionable insights.

3. Methodology A mixed-methods approach was adopted to capture the complexity and diversity of information-seeking behavior among farmers.

- **Study Area:** The research was conducted in Eastern Uttar Pradesh:. These districts were selected due to their agrarian nature and diverse socio-economic characteristics.
- **Sample Size:** A total of 300 farmers were selected using stratified random sampling to ensure representation across different landholding sizes, education levels, and gender.
- **Data Collection:** Data were collected through structured surveys, focus group discussions, and in-depth interviews. The survey instrument included questions on demographic characteristics, preferred information sources, and perceived barriers.
- **Data Analysis:** Quantitative data were analyzed using descriptive and inferential statistics, such as chi-square tests and regression analysis, to identify patterns and relationships. Qualitative data were coded thematically to capture nuanced insights.

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4. Results and Discussion

4.1 Demographic Profile of Respondents The demographic profile of the respondents provides valuable context for understanding their information-seeking behavior. Table 1 summarizes the key demographic characteristics.

Demographic Variable	Categories	Frequency	Percentage
Gender	Male	230	76.7%
	Female	70	23.3%
Education Level	Illiterate	85	28.3%
	Primary	120	40.0%
	Secondary	70	23.3%
	Higher Education	25	8.3%
Landholding Size	Marginal (<1 ha)	160	53.3%
	Small (1-2 ha)	110	36.7%
	Medium (>2 ha)	30	10.0%

4.2 Preferred Sources of Agricultural Information Farmers in Eastern Uttar Pradesh rely on a combination of traditional and modern information sources. Table 2 provides an overview of the preferred sources of information.

Source	Frequency	Percentage
Informal Networks	190	63.3%
Local Markets	150	50.0%
Agricultural Extension	140	46.7%
ICT Tools (Apps/Portals)	100	33.3%
Television/Radio	90	30.0%
Print Media	60	20.0%

Informal networks, such as neighbors, friends, and relatives, were identified as the most trusted and accessible sources of information. These networks often serve as the first point of contact for farmers seeking advice on crop management and market trends. Agricultural extension services and local markets also play a significant role, particularly for farmers with medium-sized landholdings.

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ICT tools, such as mobile applications and online portals, are gradually gaining popularity, particularly among younger farmers and those with higher education levels. However, their adoption remains limited due to barriers such as lack of digital literacy and poor internet connectivity.

4.3 Barriers to Information Access The study identified several barriers that hinder farmers' access to reliable and timely information:

- **Literacy:** Low literacy levels, particularly among older farmers and women, restrict access to written materials and digital platforms.
- **Technological Challenges:** Limited smartphone penetration, poor internet connectivity, and lack of technical know-how were significant barriers to the adoption of ICT tools.
- **Cultural Factors:** Gender norms and societal expectations often restrict women's mobility and access to information sources. This is particularly evident in households where women are primarily responsible for agricultural labor but have limited decision-making power.
- **Economic Constraints:** Smallholder and marginal farmers often lack the financial resources to invest in advanced information tools and services.
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5. Conclusion and Recommendations This study underscores the critical role of informal networks and traditional extension services in disseminating agricultural information in Eastern Uttar Pradesh. While ICT tools hold great potential for transforming the agricultural information landscape, addressing the barriers to their adoption is essential.

Recommendations:

1. **Enhancing ICT Tools:** Develop mobile-based applications with local language support and user-friendly interfaces to cater to the needs of semi-literate and illiterate farmers.
2. **Strengthening Extension Services:** Increase the reach and frequency of extension services, with a focus on training programs and on-field demonstrations.
3. **Promoting Gender Inclusivity:** Implement gender-sensitive approaches to ensure women have equal access to information and decision-making opportunities.
4. **Improving Digital Infrastructure:** Invest in improving internet connectivity and smartphone affordability in rural areas.
5. **Literacy and Capacity Building:** Launch literacy programs and capacity-building initiatives to empower farmers with the skills needed to access and utilize information effectively.

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