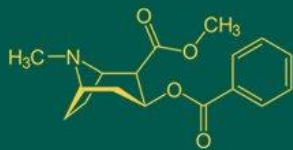


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Comparative analysis of dairy husbandry knowledge and adoption levels among Andhra Pradesh dairy farmers through YouTube and WhatsApp

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Abstract

Increase in production in dairy farming is intricately linked with the augmentation of knowledge. Central to this correlation are the information sources utilized, which play a pivotal role in enhancing knowledge levels and subsequently influencing the adoption levels of dairy husbandry practices. Thus, this study aims to comprehensively elucidate the knowledge and adoption levels of dairy husbandry practices among dairy farmers who relied primarily on information sources such as WhatsApp and YouTube. Six villages in the Andhra Pradesh districts of Visakhapatnam, Prakasam and Chittoor were chosen at random for the study. Twenty dairy farmers were chosen at random from each village, and they were divided into two groups of ten in accordance with how frequently they used WhatsApp and YouTube for information. Farmers who primarily rely on WhatsApp were assigned to one group, while those who primarily rely on YouTube were assigned to another. Thus, 60 farmers who utilize YouTube and 60 farmers who utilize WhatsApp comprised the sample. It was observed that 10.1 percent of YouTube and 8.33 percent of WhatsApp group farmers had high levels of knowledge on dairy husbandry practices whereas 11.67 percent of YouTube and 10 percent of WhatsApp group farmers had high adoption levels of dairy husbandry practices.

Keywords: Dairy husbandry practices, dairy farmers, knowledge level, adoption level, YouTube, WhatsApp

Introduction

The significance of agriculture and dairy farming in India's economic success has been well acknowledged, considering that the nation is largely agrarian. As a fact, its rural economy is inextricably linked with dairy farming, which is critical to our country's economy. Dairy industry is contributing significantly to the nation's rural economy and nutritional security. In terms of livestock, though India ranks first, with milch animals never having been considered a separate entity from agriculture but due to the restricted availability of resources to the farming community, predicted improvements in milk output per animal have yet to be achieved. The extent to which a dairy farmer's knowledge of several dairy husbandry practices such as breeding, feeding, health and animal management is latent impacts the success or failure of a dairy enterprise. The knowledge and adoption of dairy husbandry practices is influenced by the information sources. In recent years, the rise of digital communication platforms like YouTube and WhatsApp has fundamentally reshaped information dissemination strategies. Increased dissemination of contemporary technical practices is pivotal for fostering developmental strides, particularly in sectors such as agriculture and livestock. The instrumental role of digital media platforms (YouTube and WhatsApp) in facilitating the transmission of up-to-date knowledge cannot be overstated. The choice of YouTube and WhatsApp as focal points for this study stems from their widespread usage and accessibility among farmers in Andhra Pradesh. Recognizing the transformative potential of digital media in enhancing dairy husbandry practices, this research endeavors to conduct a comparative analysis of knowledge and adoption levels among dairy farmers through the utilization of YouTube and WhatsApp platforms to elucidate the potential of these digital media platforms in driving dairy development and enhancing livelihoods in Andhra Pradesh.

Methodology

A simple random sampling technique was employed to select participants for this study. Six villages were chosen at random from three districts in Andhra Pradesh: Visakhapatnam, Prakasam, and Chittoor. Within each village, a further random sample of twenty dairy farmers was selected. To assess the differential impact of information sources (YouTube vs. WhatsApp), these participants were subsequently divided into two equal-sized groups based on their primary platform for dairy-related information acquisition. One group comprised farmers who predominantly utilized WhatsApp for such purposes, while the other group consisted of those who primarily relied on YouTube. Consequently, the final sample comprised 120 participants: 60 farmers who predominantly utilized YouTube and 60 farmers who primarily relied on WhatsApp for dairy farming information. Data was collected using a standardized questionnaire, while subsequent analysis entailed the use of simple statistical methods to evaluate the collected data.

Results and Discussion

Table 1: Distribution of dairy farmers according to their knowledge level through YouTube and WhatsApp

S. No.	Category	YouTube		WhatsApp	
		f	%	f	%
1.	Low	7	11.67	13	21.67
2.	Medium	47	78.33	42	70.00
3.	High	6	13.34	5	8.33
Mean		7.65		6.05	
SD		1.470		1.345	

Table 2: Comparison of knowledge level through YouTube and WhatsApp

S. No	Variable	Mean scores		S.D		'Z' value
		YouTube	WhatsApp	YouTube	WhatsApp	
1.	Knowledge level	7.65	6.05	1.470	1.345	6.21**

Results from Table 1 indicated that 11.67 per cent and 21.67 per cent of farmers had low knowledge levels through YouTube and WhatsApp. About 78.33 per cent and 70 per cent had medium knowledge while 10 per cent and 8.33 per cent of farmers had high knowledge levels through YouTube and WhatsApp viz., the selected digital media. The mean scores of knowledge through YouTube and WhatsApp as presented in Table 2 indicated that mean score of YouTube was significantly higher than that of WhatsApp. Several factors may contribute to these discernible differences in knowledge acquisition levels between YouTube and WhatsApp. Firstly, YouTube's visual format allows for the presentation of instructional videos and tutorials, which may enhance comprehension and retention of information among viewers. Additionally, the extensive repository of content available on YouTube may offer a broader spectrum of animal husbandry topics and expertise, catering to diverse informational needs of farmers. Conversely, while WhatsApp facilitates real-time communication and peer- to-peer knowledge sharing, its textual nature may not always be conducive to conveying

complex animal husbandry concepts effectively. Moreover, the decentralized nature of information sharing on WhatsApp may result in a lack of quality control and reliability, potentially limiting its efficacy as a knowledge dissemination tool.

Table 3: Distribution of dairy farmers according to their adoption level through YouTube and WhatsApp

S. No.	Category	YouTube		WhatsApp	
		f	%	f	%
1.	Low	8	13.33	14	23.33
2.	Medium	45	75.00	40	66.67
3.	High	7	11.67	6	10.00
Mean		10.35		6.85	
SD		2.956		2.356	

Table 4: Comparison of adoption level through YouTube and WhatsApp

S. No	Variable	Mean scores		S.D		'Z' value
		YouTube	WhatsApp	YouTube	WhatsApp	
1.	Adoption level	10.35	6.85	2.95	2.35	7.17**

From Table 3 it was noticed that 13.33 per cent and 23.33 per cent of farmers had low adoption levels through YouTube and WhatsApp. Around 75 per cent and 66.67 per cent had medium adoption while 11.67 per cent and 10 per cent of farmers had high adoption levels through YouTube and WhatsApp. The mean scores of adoption through YouTube and WhatsApp as presented in Table 4 indicated that mean score of YouTube was significantly higher than that of WhatsApp. This was attributed to the fact that most of the respondents found the information disseminated through YouTube as brief, comprehensible and appealing than the content disseminated through WhatsApp. This disparity could be attributed to the richer media format on YouTube, allowing for detailed demonstrations and potentially fostering a stronger understanding of practices. Additionally, YouTube content might showcase success stories and create a sense of community around specific practices, further influencing adoption decisions. Therefore the adoption and knowledge levels of farmers regarding dairy husbandry practices through YouTube were significantly higher than that of WhatsApp.

Conclusion

In conclusion, the findings of this study underscore the significant role of digital media platforms, particularly YouTube and WhatsApp, in shaping knowledge acquisition and adoption levels among dairy farmers in Andhra Pradesh. Furthermore, the study highlights the importance of considering media format and content richness in designing effective knowledge dissemination strategies for livestock extension programs. The findings of this study revealed a significant advantage for YouTube, with farmers who primarily utilized YouTube exhibiting demonstrably higher knowledge and adoption levels compared to their WhatsApp-reliant counterparts. The richer media format of YouTube, which allows for detailed demonstrations and showcases success stories, appears to have a stronger

influence on farmers' adoption decisions compared to WhatsApp.

In light of these findings, policymakers, extension agencies, and other stakeholders should prioritize the development of multimedia content on platforms like YouTube to enhance the dissemination of dairy husbandry knowledge and promote the adoption of best practices among dairy farmers. Additionally, efforts should be made to leverage the strengths of WhatsApp, such as its real-time communication features, to complement existing knowledge dissemination channels and facilitate peer-to-peer learning within farming communities.

Overall, this comparative analysis provides valuable insights into the effectiveness of digital media platforms in enhancing knowledge and adoption levels among dairy farmers, ultimately contributing to the sustainability and resilience of the livestock sector in Andhra Pradesh.

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