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Study on constraints perceived by the dairy farmers in accessing information on mobile application (Dairy Kannada) in Karnataka and suggestions

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Abstract

Information and Communication Technology (ICT) induced information delivery that can significantly improve the productivity in livestock farming system. In developing countries like India, ICT has always been an important factor behind development. Understanding the constraints and suitable advancements based on suggestions will have positive impact. A study was carried out among the dairy farmers of Karnataka to evaluate the constraints faced by the farmers in assessing the information through mobile application (Dairy Kannada). The study also enlisted the suggestions given by dairy farmers in eliciting the information access and thereby benefitting their enterprise. An ex-post facto research design was used and a total of 120 respondents have been interviewed employing combination of purposive and multi-stage random sampling. The dairy farmers who are using the app have been selected and the responses are subjected to suitable statistical analysis. The results revealed that difficulty in clarification ie and other factors are ranked accordingly using garrette ranking scale. The study also highlighted the suggestions for improvement and are ranked accordingly.

Keywords: Constraints, information and communication technology, mobile application, suggestions, Garrette ranking scale

Introduction

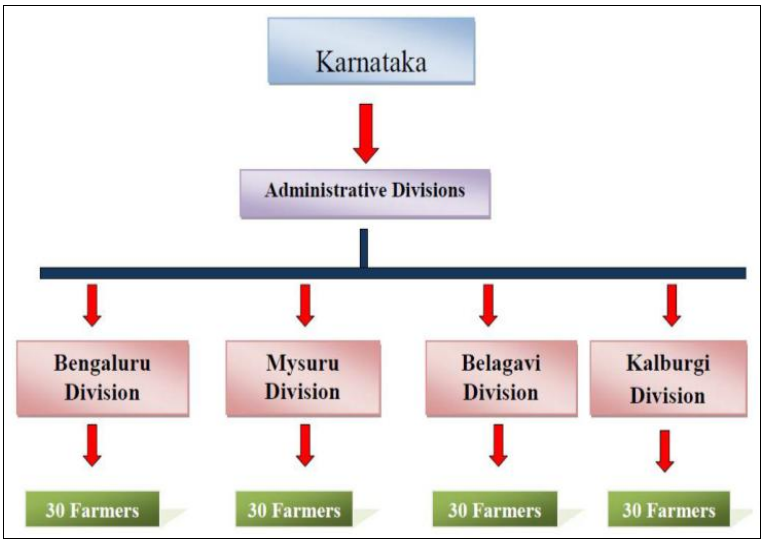
Indian dairy industry being one of the largest industries in India is having the characteristics of large number of cattle and low output, in terms of productivity. Sixteen per cent of world cattle, including 57 per cent of buffaloes are there in India, but the contribution in world milk production is just 15 per cent. Information gaps between rural and urban areas have jeopardized the ability of rural people to realize their full potential and improve their economic, social and environmental conditions. In this context, to couple the changing world with sustainable and innovative measures in the field of animal husbandry, there is a need to move away from the traditional trends in extension approach. Sasidhar and Sharma (2006) [11] had emphasized that the use of Information and Communication Technology (ICT) has potential to change the economy of livestock, agriculture and rural artisans in India. ICT based information delivery to livestock sector can significantly improve the quality of decision-making in livestock farming system.

Mobiles became affordable and ever-increasing connectivity among more and more people. The value-added services of the mobile like Short Message Service (SMS), Voice SMS, Videos, Application soft wares etc. had been contributing to extension. So, mobile phone is today's the most likely access device for information dissemination and providing lot of hope to improve extension services. By using this technology, extension has succeeded in reaching greater audience especially the disadvantaged groups (Mittal *et al.*, 2010) [6]. Hence, a modest effort was made to introduce the concept of mobile application (Dairy Kannada) in the field

of extension services delivery for effective dissemination of information to the livestock farmers. The present study determines the constrains as well as suggestions with reference to this mobile application as perceived by the dairy farmers and thereby unfolding the suitable improvements enhancing its sustainability in assessing the needed information (Galloway and Mochrie, 2005). [3]

Materials and Methodology

The research design adopted for this study was ex-post-facto technique, since the phenomenon has already started and is continuing. Thirty dairy farmers from each administrative division of Karnataka possessing android smart phone and rearing cattle/buffalo were considered for the study. Hence, a total of 120 respondents (30 of dairy farmers from each of four administrative divisions of the state Bengaluru, Mysuru, Kalburgi and Belagavi) who have already downloaded and using the dairy app were selected for the purpose of data collection, which was done through pre-tested structured 'Interview-Schedule'. A combination of purposive and multi-stage random sampling was adopted in the study to select the respondents. The responses were ranked according to garrette ranking technique.



Selection of respondents for the study

Results and Discussion

Constraints

Table 1 indicated the constraints faced by the dairy farmers during accessing the information through the mobile app. Dairy farmers ranked 'clarification is difficult if doubts arise' as a major problem, followed by 'regular updates are not available in the app, no quick control over the icons in the app, requirement of time to understand and learn the practice, no platform for interaction, lack of technical knowledge for using app, possession of android mobile phone to access the information regarding dairying and lack of region specific information on management practices' using garrette ranking technique (Garrett, 1979) [4]. These findings were in line with Rathod *et al.* (2016a) [8], Rupender *et al.* (2017) [10] and Raghu Prasad *et al.* (2016) [7].

Table 1: Distribution of the respondents according to suggestions given by the respondents (N = 120)

Sl. No.	Suggestions	F (%)	Ranking
1.	Information through video clippings	91 (75.83)	II
2.	Dairy farm models	82 (68.33)	III
3.	Information on ource of inputs and marketing of outputs	75 (62.50)	IV
4.	Immediate interaction for discussion	108 (90.00)	I
5.	App should link all stakeholders like farmers, input dealers, universities as well as marketing agencies	72 (60.00)	V
6.	Still more information is required especially on preparation of cattle feed	28 (23.33)	VII
7.	Updation of app is required with new innovations in dairying	44 (36.66)	VI

Suggestion

An examination of data in Table 2, indicated the suggestions given by farmers to improve the information accessibility of dairy app. Majority of the respondents had suggested that there is a need for a platform for immediate interaction (90.00%) followed by dairy app should have information through video clippings (75.83%), need of dairy farm models in the dairy app (68.33%), app should have information on source of inputs and marketing of outputs (62.50%), app should link all stakeholders like farmers, input dealers, universities as well as marketing agencies (60.00%), updation of app is required with new innovations in dairying (36.66%) and still more information should be provided in the app especially on Hydroponics and preparation of cattle feed (33.33%) with ranks I, II, III, IV, V, VI and VII, respectively. These findings were in line with Rathod *et al.* (2016b) [9].

Table 2: Distribution of the respondents according to the perceived constraints in accessing the information through mobile application (N = 120)

Rank	Constraints	Total score	Average score
I	Clarification is difficult if doubts arise	7532	62.76
II	Regular updates are not available in the app	6976	58.13
III	No quick control over the icons in the app	6879	57.32
IV	More time is required to understand and learn the practice	6661	55.50
V	There is no platform for interaction	6614	55.11
VI	Lack of technical knowledge for using app	4609	38.40
VII	Android mobile phone is a criteria to access the information regarding dairying	4431	36.92
VIII	The information on management practices is not region specific	4418	36.81

Conclusion

Mobile app is a new tool for effective transfer of technology. As per the analysis of the study, major constraints faced during accessing the information through dairy app was 'clarification is difficult if doubts arise' and the major suggestions given by the respondents in accessing the information through dairy app was platform for immediate interaction followed by information through video clippings and provision of dairy farm models**.** The scientific community should take the initiative to create awareness and publicize the ICT tools along with updating new technologies and practices timely (Bore *et al.* 2015) [1]. The constraints perceived by the respondents would be helpful to the service providers and policy makers to develop sustainable strategies for effective implementation of other ICT interventions in the rural areas (Dhaka and Chayal, 2010) [2].

References

1. Bore MC, Owouche J, Mutai JK. Assessing benefits and challenges of smallholder dairy farmers experience in using ICT tools to source information on insemination services and breeding stock in Western Kenya. J Agric Vet Sci. 2015;8(7):6-10.
2. Dhaka BL, Chayal K. Farmers' experience with ICTs on transfer of technology in changing agri-rural environment. Indian Res J Ext Edu. 2010;10(3):114-8.
3. Galloway L, Mochrie R. The use of ICT in rural firms: a policy-orientated literature review. J Policy Regul Strat Telecommun. 2005;7(1):33-46.
4. Garrett HE. Statistics in psychology and education. Hyderabad, India: International Book Bureau; 1979. p. 328.
5. Gulati A, Minot N, Delgado C, Bora S. Growth in high-value agriculture in Asia and the emergence of vertical links with farmers. In: Swinnen JFM, editor. Global supply chains, standards and the poor: how the globalization of food systems and standards affects rural development and poverty. Wallingford, UK: CABI; 2007. p. 91-108.
6. Mittal S, Gandhi S, Tripathi G. Socio-economic impact of mobile phones on Indian agriculture. Working Paper No. 246. Indian Council for Research on International Economic Relations; 2010. http://test.icrier.org/pdf/WorkingPaper246.pdf
7. Raghuprasad KP, Shanabhoga MB, Shivani D, Devaraj K. Attitude of farmers about use of ICT tools in farm communication. In: Proceedings of 21st International Academic Conference; 2016. p. 101-11.
8. Rathod P, Chander M, Bangar Y. Use of mobiles in dairying for information dissemination: a multi-stakeholder analysis in India. Indian J Anim Sci. 2016;86(3):348-54.
9. Rathod P, Chander M, Bardhan D. Adoption status and influencing factors of mobile telephony in dairy sector: a study in four states of India. Agric Econ Res Rev. 2016;29(1):15-26.
10. Rupender K, Hudda RS, Malik JS, Mehta SK, Mehta G. Constraints and suggestions by farmers during accessibility of Information and Communication Technologies (ICTs): study in Haryana. Int J Agric Sci. 2017;9(2):3653-5.
11. Sasidhar PVK, Sharma VP. Cyber livestock outreach services in India: a model framework. J Res Rural Dev. 2006;6(4):26-35.