Research Article

Indian Journal of Extension Education
Vol. 58, No. 3 (July–September), 2022, (70-73)

ISSN 0537-1996 (Print)
ISSN 2454-552X (Online)

Leveraging Social Media Platforms for valuing Agri-Entrepreneurship in Punjab, India

Amanjit Kaur[1]*, Gurjeet Singh Walia[2] and Ramandeep Singh[1]

[1]School of Business Studies, Punjab Agricultural University, Ludhiana, Punjab, India
[2]Department of Mathematics, Statistics & Physics, Punjab Agricultural University, Ludhiana, Punjab, India
*Corresponding author email id: amanjit-sobs@pau.edu

ARTICLE INFO

Keywords: Agribusiness, Agripreneurs, Digital platforms, Information, Social media

http://doi.org/10.48165/IJEE.2022.58315

ABSTRACT

Social media tools offer a huge opportunity to value digital engagement for agribusiness stakeholders. The rapid pace of developing digital platforms calls for substantial growth in agri-entrepreneurship in Punjab. The present study analyzed the usage pattern of different social media platforms by agripreneurs in Punjab and examined the significance of their demographic characteristics in the usage of these online communication platforms. The data were collected from 200 agripreneurs, who got or were getting training from Punjab Agricultural University during the year 2019. The findings highlighted that WhatsApp and Facebook were the two topmost used social media applications for agribusiness pursuits in Punjab, followed by Instagram, YouTube, Twitter, and LinkedIn. Among various demographic attributes, age, educational qualification, and marital status of the agripreneurs were found to have significant relationships with their usability in agribusiness. The young, highly educated, and unmarried agripreneurs recorded more use of social media tools for agribusiness undertakings as compared with older, less educated, and married agripreneurs. It can be concluded that all agribusiness stakeholders should encourage the synchronized use of such digital platforms to make the right information available at right time to the agripreneurs.

INTRODUCTION

With technology becoming ubiquitous in today's agribusiness sector, the prominent social media platforms (Facebook, YouTube, WhatsApp, Twitter, Instagram, Snapchat, Facebook Messenger, Pinterest, etc.) offer a convenient way to actively share information, seek expert advice, reach large audiences, ensure better supply-chain management, and promote modern agribusiness practices in India. The number of social media users in India stood at 518.92 million in the year 2020, and they comprised approximately 37.6 per cent of the total population in India (Datareportal, 2021; Statista, 2021). The dynamics of social media presented many factors affecting the deployment of social media tools for the dissemination and subsequent use of agrarian information. The landholding size, annual income level, education, and subsidiary occupations other than agriculture were considered the key factors affecting the use of information sources (Linh et al., 2016). On the other hand, lack of internet access, and inadequate skills & knowledge were primarily taken as curbs to impeccable use of social media in agribusiness (Chisenga et al., 2014; Pandey et al., 2020; Singh et al., 2021). Although social media users give opinions and express emotions through content sharing on multiple online platforms to satisfy the need for self-expression, but the personal characteristics, social needs, contentment needs, and technological attributes are also posited as the pioneers in the adoption of social media (Venkatesh et al., 2003; White et al., 2014; Zolkepli & Kamarulzaman, 2015).

Evidence from the recent literature suggests that social networks are not only reliable, but quite essential in helping small farmers in their challenging times, minimizing disruptions to agribusiness value chains, and extending long-term business value

Received 23-03-2022; Accepted 25-05-2022

(Nain et al., 2019; Miklian & Hoelscher, 2021). The adoption of social media leverages the paradigm shift in accessing the agri-advisory services, along with bridging the opportunity gaps between small farmers and emerging markets (Zolkepli & Kamarulzaman, 2015). A recent case study conducted by McKinsey & Company (2021), based on an analysis of 400 digital solutions in Sub-Saharan Africa, suggests the use of a digital food balance sheet (FBS) for gauging the produce yields, trade prices, and inventory levels. This could be used in India by deploying data from various agribusiness actors, both public and private units, which would help provide reliable agribusiness information, allocate government subsidies, encourage investments in the food business, and display agri-market information in public. The Government could use advanced digital media tools for helping the agrarian community by providing food subsidies, supporting food security, and managing the inventories in public warehouses. Additionally, the customization of such digital technologies could be done to reduce all prevalent risks and provide a competitive advantage to the firm, especially small and medium agri-food enterprises (SMEs) (Yang et al., 2021).

Several studies demarcate the significant role of propagating agribusiness knowledge on social media platforms and sharing robust content driven by audiences' emotions in building positive attitudes towards agri-entrepreneurship (Raina et al., 2016; Kapinga et al., 2019; Reichstein & Brusch, 2019; Panda et al., 2019; Chi Nawi et al., 2022; Jayalakshmi, 2022). Hence, this study aims at determining the practice of using various social media tools by agripreneurs and examining the significance of demographic variables (such as age, gender, education, marital status, family size, landholding size, annual income, and farming experience) for realizing advantages in agribusiness in Punjab.

METHODOLOGY

This study targeted agripreneurs, who got training or were getting training for the last five years under the Skill Development Centres (SDCs) and the Krishi Vigyan Kendras (KVKs) (District-level Farm science institutes) of Punjab Agricultural University (PAU), Ludhiana, Punjab. Firstly, the agripreneurs across all agribusiness product classes were populated, and then, they were classified into the following ten major categories depending upon their agribusiness products, such as Mushroom growers, Bee-keepers, Product developers, Agro-processing complexes, Vegetable growers, Diversified new crop growers, Floriculturists, Seed growers, Organic agripreneurs, and Aromatic & medicinal agripreneurs. The structured non-disguised questionnaires (both offline and online using Google forms) were specifically designed and distributed among the targeted respondents of the study. Subsequently, the data were collected from a sample of 200 respondents using stratified random sampling with a disproportionate scheme. Moreover, this classification resulted in uneven groups of agripreneurs, but our study targeted fair representation of different classes of agripreneurs. So, 20 respondents were randomly selected from each group, making a total sample of 200 respondents. This procedure was also repeated with other groups, resulting in the selection of 10 sub-samples for this study. Besides using primary data, additional data sources such as agricultural journals, magazines, and other published material were also referred to. The compiled data were analyzed with the help of appropriate statistical methods using Statistical Package for Social Sciences (SPSS version 20). Since the collected data were measured on an ordinal scale, so non-parametric test i.e. Kruskal-Wallis test was applied to test the significance of various demographic variables (age, gender, education, marital status, family size, landholding size, annual income, and farming experience) in the extent of using social media platforms.

RESULTS AND DISCUSSION

Among the different social media platforms (Table 1), WhatsApp (96.55%) and Facebook (90.8%) were documented as the two topmost used applications for agribusiness activities in the Punjab state, followed by Instagram (37.36%), YouTube (35.06%), Twitter (16.67%), and LinkedIn (11.49%).

Table 1. Social media penetration among respondents

Social media platforms	Percentage
WhatsApp	96.55
Facebook	90.80
Instagram	37.36
YouTube	35.06
Twitter	16.67
LinkedIn	11.49

*Data are based on multiple responses

Age of the agripreneurs and social media

The adoption and frequency of using social media platforms are greatly affected by certain demographic characteristics of social media users. The data in Table 2 shows the significance of the relationship between the age groups of respondents and the use of social media platforms for agribusiness pursuits. There were statistically significant differences in use-scores of Facebook ($X^2(3) = 9.163$, $p = 0.027 < 0.05$) and WhatsApp ($X^2(3) = 13.290$, $p = 0.004 < 0.01$) among the different age groups. Facebook and WhatsApp were considered advantageous tools for developing and maintaining better customer relations. Sturiale & Scuderi (2013) observed that young agripreneurs tend to use Facebook more than the elder ones. The significance of the age factor to the use of the internet was also supported by Fawole & Olajide (2012); Linh et al., (2016). Agripreneurs in the age group of 21 to 40 yrs documented the maximum use of Facebook and WhatsApp for marking their presence on various digital platforms and sharing their experiences among others. The statistical analysis of using YouTube, Twitter, LinkedIn, and Instagram did not find any significant relationship with the age groups of respondents.

Education of the agripreneurs and social media

The analysis of the relationship between the educational attainment and the use of different social media platforms for agribusiness activities revealed that there were significant differences in the use scores of Facebook ($X^2 = 12.218$, $p = 0.016$) and LinkedIn ($X^2 = 6.438$, $p = 0.040$) among the different educational groups. The agripreneurs with Post-Graduation marked the maximum average use of Facebook (7.52 hrs per week) and LinkedIn (4 hrs

Table 2. Demographic variables vs. Social media platforms: Kruskal-Wallis test

Social media tools	Age			Education			Marital status		
	Chi-square	df	Sig.	Chi-square	df	Sig.	Chi-square	df	Sig.
Facebook	9.163	3	0.027*	12.218	4	0.016*	11.160	1	0.001**
Twitter	2.779	2	0.249	1.238	2	0.538	2.565	1	0.109
WhatsApp	13.290	3	0.004**	14.236	4	0.007**	6.734	1	0.009**
YouTube	2.940	2	0.230	2.832	2	0.243	0.008	1	0.929
LinkedIn	1.570	2	0.456	6.438	2	0.040*	4.348	1	0.037*
Instagram	6.148	2	0.054	4.489	2	0.106	0.293	1	0.588

*Significant at the 0.05 level of significance; **Significant at the 0.01 level of significance

per week) for their agribusiness endeavors, while the agripreneurs, who didn't pass even their matriculation qualification, recorded the least average use of Facebook (1 hr per week) and no use of LinkedIn for agribusiness pursuits. The significance of educational qualification in internet use was also evidenced by Linh et al., (2016). Moreover, the use-scores of WhatsApp for agripreneurs confirmed the compliance of social media platforms for agribusiness tasks. There was a significant difference between agripreneurs belonging to different educational groups and the extent of using WhatsApp (X^2 = 14.236, p = 0.007) for agribusiness purposes. The agripreneurs with Graduation demonstrated the maximum average use of WhatsApp (9.42 hrs per week), while the agripreneurs with below matriculation qualification marked the least average use of WhatsApp (1.67 hrs per week) for their agribusinesses. Education of the agripreneurs had not depicted any significant relationships with the use of Twitter, YouTube, and Instagram.

Marital status of the agripreneurs and Social media

The results were quite similar in the case of studying the usage extent with respect to the marital status of respondents. The significant differences were present between the marital status of respondents and the use scores of Facebook (X^2 = 11.160, p = 0.001), WhatsApp (X^2 = 6.734, p = 0.009) and LinkedIn (X^2 = 4.348, p = 0.037) in agribusiness. On the other hand, the use-scores of Twitter, YouTube, and Instagram did not have any significant relationship with the marital status of respondents. Unmarried agripreneurs recorded more use of all social media platforms like Facebook, Twitter, WhatsApp, YouTube, LinkedIn, and Instagram in comparison to married agripreneurs. LinkedIn (2.31 hrs a week) and Instagram (2.21 hrs a week) were among the least used applications by married agripreneurs, whereas unmarried agripreneurs marked the least average use of YouTube (3.25 hrs a week) and LinkedIn (3.14 hrs a week) on an average basis.

Other demographic variables and social media

While taking other demographic variables, such as gender, family size, landholding size, annual income, and farming experience, no statistically significant relationship was established with the utilization of social media tools in agribusiness tasks. It was instructive to note that, the young agripreneurs were active social media users, who look forward to making the best use of social media platforms for undertaking agribusiness pursuits.

However, the present study has important implications for the agribusiness stakeholders, such as building a good social network of agripreneurs, enhancing the effectiveness of the agribusiness value chain, accessing, utilizing resources in a better manner, and supporting development in the agribusiness sector. This study was restricted in its scope to only PAU-trained agripreneurs of the last five years and can be extended to other states for intra-state as well as inter-state comparisons. Nevertheless, the subjectivity could not be ruled out from the study. As the respondents in the study area found it challenging to use new social media applications, so more user-friendly features tailored to the socio-demographic characteristics of agripreneurs should be incorporated into social media platforms. Additionally, the agricultural extension personnel should impart agribusiness training and conduct agripreneurship programs in both offline and online modes, so that the senior agripreneurs could share their agribusiness experiences with the young agripreneurs and the young ones could share the latest updates in using social media applications. 'Speech to text' feature in social media applications would also work well in collaboration with the automatic transcription option. Also other wide range of social media lingo, including clipping, abbreviation, alphanumeric homophony, vowel deletion, graphone, and other slang terms, among other things may be used (Asare et al., 2021). It may help in integrating AI (Artificial Intelligence) into the agribusiness system in the future.

CONCLUSION

Retrieving and publicizing useful agribusiness information is the key agenda behind the success of using any digital tool in agribusiness so that the agribusiness stakeholders could reap its benefits along with serving the market demands. It has become essential to urge all the agribusiness market actors to utilize these trending social media tools and stay updated with market variations. The results of the study corroborate the general disposition of using social media platforms, that is, maximum use of Facebook and WhatsApp among the young social media users, while the older people use them only when seems necessary. A similar trend is witnessed in this case, where using Facebook, WhatsApp, and LinkedIn is quite common among the educated and unmarried agripreneurs. The uses of such digital tools must be better comprehended in the farming communities to uncover the benefits served by social media tools in agribusinesses. Nevertheless, the Government and other agribusiness stakeholders should ensure digital literacy for agripreneurs, good power supply, and digital access facilities, which could help raise the sustainability of agribusinesses.

REFERENCES

Asare, I. A., Takyi, E. B., Teye, S., & Teye, D. A. (2021). Trends of social media writing among students of Mount Mary's college of education in the eastern region of Ghana. *Journal of Extension Systems*, *37*(2), 32–42. https://doi.org/10.48165/jes.2021.37.2.6

Che Nawi, N., Mamun, A. A., Hassan, A. A., Wan Ibrahim, W. S. A. A., Mohamed, A. F., & Permarupan, P. Y. (2022). Agro-Entrepreneurial Intention among University Students: a study under the premises of Theory of Planned Behavior. *SAGE Open*, *12*(1), 21582440211069144.

Chisenga, J., Kedemi, R., & Sam, J. (2014). The use of social media in agricultural research workflows in Ghana and Kenya, *Agricultural Information Worldwide*, *6*, 48-57.

Datareportal. (2021). *Digital 2021: India.* https://datareportal.com/reports/digital-2021-india

Fawole, O. P., & Olajide, B. R. (2012). Awareness and use of information communication technologies by farmers in Oyo State, Nigeria. *Journal of Agricultural & Food Information*, *13*(4), 326-337.

Jayalakshmi, M., Prasadbabu, G., Chaithanya, B. H., Lavanya, A., & Srinivas, T. (2022). Usages of Mobile Application developed by Krishi Vigyan Kendra Banavasi. *Indian Journal of Extension Education*, *58*(1), 72-75.

Kapinga, A. F., Suero Montero, C., & Mbise, E. R. (2019). Mobile marketing application for entrepreneurship development: Codesign with women entrepreneurs in Iringa, Tanzania. *The Electronic Journal of Information Systems in Developing Countries*, *85*(2), 1-15. https://doi.org/10.1002/isd2.12073

Linh, T. T., Nanseki, T., & Chomei, Y. (2016). Factors affecting farmers' uses of information sources in Vietnam. *Agricultural Information Research*, *25*(3), 96-104.

McKinsey & Company. (2021). *Podcast: How digital tools can help transform African agri-food systems.* https://www.mckinsey.com/za/our-insights/podcast-how-digital-tools-can-help-transform-african-agri-food-systems.

Miklian, J., & Hoelscher, K. (2021). SMEs and exogenous shocks: A conceptual literature review and forward research agenda. *International Small Business Journal-Researching Entrepreneurship*, 40(2), 178-204 https://doi.org/10.1177/02662426211050796.

Nain, M. S., Singh, R., & Mishra J. R. (2019). Social networking of innovative farmers through WhatsApp messenger for learning exchange: A study of content sharing. *Indian Journal of Agricultural Sciences, 89*(3), 556-558.

Panda, S., Modak, S., Devi, Y. L., Das, L., Pal, P. K., & Nain, M. S. (2019). Access and usage of Information and Communication Technology (ICT) to accelerate farmers' income. *Journal of Community Mobilization and Sustainable Development*, *14*(1), 200-205. https://indianjournals.com/ijor.aspx?target=ijor:jcmsd&volume=14&issue=1&article=037

Pandey, D. K., De, H. K., & Dubey, S. K. (2020). Social media usage among agriculture collegian in north-Eastern India. *Indian Journal of Extension Education*, *56*(2), 26-30.

Raina, S., Chahal, H., & Kher, S. K. (2016). Analysing agriculture extension services for media mixes for transfer of technology. *Journal of Rural Development*, *35*(3), 465-481.

Reichstein, T., & Brusch, I. (2019). The decision making process in viral marketing-A review and suggestions for further research. *Psychology & Marketing*, *36*(11), 1062-1081.

Singh, S. K., Singh, A. K., & Maji, S. (2021). Constraints faced by the students in the usage of ICT initiatives in agricultural education. *Indian Journal of Extension Education*, *57*(1), 114-117.

Statista. (2021). *Number of social network users across India.* https://www.statista.com/statistics/1232311/india-number-of-social-media-users-by-platform/

Sturiale, L., & Scuderi, A. (2013). Evaluation of social media actions for the agrifood system. *Procedia Technology*, *8*, 200-208.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, pp 425-478.

White, D., Meyers, C., Doerfert, D., & Irlbeck, E. (2014). Exploring agriculturalists' use of social media for agricultural marketing. *Journal of Applied Communications*, *98*(4), 72-86.

Yang, Y. H., Chang, C. Y., Chen, C. T., & Tsay, J. R. (2021, May 26). Impact of the COVID-19 Pandemic Becomes the Thriving Accelerator for the Smart Agriculture. *FFTC Agricultural Policy Platform.* https://ap.fftc.org.tw/article/2754

Zolkepli, I. A., & Kamarulzaman, Y. (2015). Social media adoption: The role of media needs and innovation characteristics. *Computers in Human Behavior, 43*, 189-209.