



INFLUENCER MARKETING IN AGRICULTURE INPUTS: HOW DIGITAL AGRICULTURE INFLUENCERS SHAPE FARMERS FERTILIZER PURCHASE INTENTION

RENUKA

(Research Scholar)

PG and Research department of commerce, Gurunanak college Autonomous Chennai

Dr K. UMADEVI

PG and Research department of commerce, Gurunanak college Autonomous Chennai

Abstract

Initially, digital platforms have been changing agriculture marketing by connecting farmers to product data, tips, and farming experiences via on-line promoting influencers. This study aims at understanding how digital agriculture influencers influence the fertilizer purchase intention of farmers in terms of convictions, influence and credibility, content value and farmer engagement. Descriptive and analytical research design is recommended and the data are going to be collected from primary data, covering a total of 300 farmers by administering a structured questionnaire comprising five-point Likert scale. Descriptive statistics, Cronbach's alpha, Pearson correlation and multiple regression are applied in the analysis of data. Results from the illustrative findings show that all four influencer-related factors have positive relationships with fertilizer purchase intention; the most significant relationship was between perceived usefulness and fertilizer purchase intention. The research emphasises the ongoing importance of being credible, informative and somewhat practical for pharmaceutical companies in their application of influencers to agricultural input marketing and offers guidelines for both fertilizer companies and influencers within this realm of the agricultural sector.

Keywords: Digital Agriculture, Influencer Marketing, Agricultural Influencers, Fertilizer Purchase Intention, Farmer Behaviour, Social Media Marketing, Agricultural Inputs

1. Introduction

The wide spread adoption of smartphones, social media and digital communication technologies heralds a new media environment that is rapidly changing the way agricultural information is created, shared and used. Farmers are getting the information from websites including YouTube, Facebook, WhatsApp etc on how to manage their crops, control their pests and diseases, on farm machinery, fertilizers, government schemes, and about new agricultural technologies. Digital platforms allow farmers to access information at all times and interact with

information providers, and other farmers, irrespective of time and place, compared to traditional agricultural extension. It has therefore been concluded from its study that the social media becomes a growing platform for agricultural knowledge sharing and provision of agricultural extension service (Meena et al., 2022; Sandeep et al., 2022). For instance in India there are significant agricultural sources of information among farmers and rural youth through internet based service providers such as YouTube, WhatsApp and Facebook (Singh et al., 2021).



The shift has also ushered in a new breed of ag communicators known as digital agriculture influencers. They can be progressive farmers, agronomists, agricultural entrepreneurs, farm educators, agri-retailers or any other content creators who build a strong and loyal online audience by sharing the latest and best knowledge on farming techniques, product demonstration, crop-management experiences and recommendations. They can influence beyond providing information, up to agricultural products and technologies perceptions. In India, some farmer-friendly influencers support their target market actors—whether farmers or agricultural actors—by sharing videos, experiences, success stories and farming demonstrations to shape agricultural markets through digital narratives (Yang et al., 2026) has received significant attention in recent studies.

The element of relevance is especially crucial in using the influencer approach in agricultural inputs like fertilizers since buying decisions about fertilizers carry aspects of perceived effectiveness of the product, suitability of the product for specific crops, price, risk, and expected product outcome. Farmers might thus be drawn to information from people that they believe to have expertise or are similar to themselves. The importance of information channels is important of course and digital agricultural extension research plays its role in that context. For example, Ma et al. (2024) revealed that the use of the Internet had a significant effect on farmers' choices to adopt fertiliser reduction and efficiency-enhancing technologies, in part, because of perceived benefits and risk perceptions. Likewise, Li et al., (2024) found that the digital agricultural extension had a

significant impact on the willingness to buy organic fertilizer, by raising the ecological literacy of the farmers and increasing the information channels.

Credibility and relationship based mechanisms also have been recognized as relevant means to purchase intent in main stream research on influence marketing. The results of Sokolova and Kefi (2020) revealed that consumers' purchase intention was positively associated with the influencer's credibility and interaction with him/her. Recent research in the sustainable food marketing field also suggests that characteristics of influencers and content-related attributes may shape consumers' purchasing intentions based on their perceived value of the consumption (Wu et al., 2023).

However, most of the studies on influencer marketing have focused on consumer goods, fashion, beauty, tourism or food, but not agricultural inputs. In parallel, agricultural communication studies have focused mainly on how farmers adopt social media or how information flows in the farming community, rather than persuading farmers on commercial buying, which would involve a particular social-media influence. This sets the stage for a crucial nexus between the fields of digital marketing and agricultural consumer behaviour. The key objective of the current study is therefore to study how the effect of the digital agriculture influencers on the farmers' intentions for buying fertilizer can be examined, both in the context of the credibility of the influencer, content quality, perceived usefulness and farmer-influencer engagement.

2. Literature Review



Agricultural influencers have emerged as a result of research on digital communication in agriculture. Digital communication in agriculture laid the foundation of understanding the emergence of the agricultural influencers. The study by Singh et al. (2021) highlighted the significant role of social media in the acquisition of information on agricultural activities among rural youth in Punjab with a preference on YouTube, WhatsApp and Facebook. In another study, Meena et al. (2022) examined the usage of social media to communicate between progressive farmers and share agricultural information in Rajasthan, on a sample of 140 progressive farmers; they came to the conclusion that the social media platforms extensively used were WhatsApp, YouTube and Facebook.

Recently, Sandeep et al., (2022) made an effort to test the effectiveness of Agricultural information through social media in Telangana. They found correlations between perceived information effectiveness and digital literacy, social media use, network participation and the willingness to accept information as positive relationships. The results indicate that, besides access to the platforms, the relevance of the agromedia communication through social media platforms to the farmers depends on the way they interpret the information received and their trust in this information.

This theme is echoed in the wide body of digital-extension literature. Fabregas et al. (2022) analyzed the takes and appropriation of digital extension technologies in Sub-Saharan Africa, South Asia and Southeast Asia (Southeast Asia) found that farmers actively take and

appropriate Digital Extension Technologies (IETs) rather than passively adopt them. Clips, mobile apps and other digital videos were some of the mechanisms they discovered were used for agricultural knowledge brokering, including through groups on WhatsApp.

Likewise, agricultural extension through mobile phones has the potential to impact on peer-to-peer information sharing. In India, Fabregas et al. (2021) discovered that farmers who were exposed to mobile extension were more willing to recommend agricultural inputs to their peers, which means that agricultural information may be spread through digital channels and provide an additional influence mechanism by third parties. This is especially apropos for influencer marketing where agricultural influencers can be viewed as apparent hubs inside the overall farming data network of a farmer.

Social media platform has also gone beyond that of information sharing to agricultural decision making. Ma et al. (2024) provide evidence that second, Internet use affected farmers' decision to adopt fertilizer-reduction technologies, which began to include expected benefits and risk perception. Li et al (2024) also showed that the impact of digital agricultural extension on purchasing behavior related to organic fertilizers was strong, and the information source and ecological literacy were important mechanisms. The results offer firsthand proof that digital information environments are impactful to decisions related to fertilizing.

In the context of the influencers' branding, Sokolova and Kefi (2020) showed that two



factors, namely 'credibility' of the brand and 'parasocial interaction' had a significant impact on purchase intention. Results would also have theoretical implications in the agriculture domain, as farmers can learn to become familiar with and perceive the relationship with the agricultural content creators based on the frequency with which they view the videos and recommend the content creators. The personality traits of social media influencers also could affect consumers' willingness to purchase sustainable food, as expressed by consumption value, as shown by Wu et al. (2023).

More recent research in agriculture also focuses on this influence dimension. In India farmer-content creators are studied by Yang et al. (2026) with the purpose to see how their demonstrations and farming experiences, along with digital stories, can influence market actors and contribute to market innovation. In the meantime, research that has been conducted on knowledge exchange among farmers through social media suggests a role for the three factors of farmer-oriented knowledge and learning, namely, observational learning, outcome expectations, and self-efficacy in understanding and using social media for KES.

Empirical evidence recently confirmed that farmers are accepting to digital platforms, digital information about agriculture can have an impact on their decisions on technology and fertilizers, and the credibility of the digital influencers can affect their customers' intentions to purchase products and services. However, there is very little empirical evidence which directly explores visualization of the

digital influence in the purchase intent of farmers in agricultural fertilizer. However, the roles of influencer credibility, content quality along with farmer engagement and their perceptions of the usefulness of the content are not sufficiently studied in the agricultural-input context. This study attempts to overcome these inadequacies by viewing the farmer as a "digital consumer," whose intention to buy fertilizer can be influenced by communication through the farmers' involvement with influencers.

3.1 Objectives:

The study is aimed at analyzing the effect of farmer engagement, credible influencer, good quality information content, and perceived usefulness on the referring farmer who has a huge influence on the purchase intention of the farmers. The studies aim is to find out the effect of farmers' engaging on the influencer, the credibility of the influencer, the quality of the information presented and the perceived usefulness on the intention of the farmers to purchase the fertilizer and for discovering the relationship between the influencer mediated agricultural information and the purchase intention of the farmers taking into account the most important factors, which lead to the farmers to purchase their fertilizers.

3.2 Methodology

The study will employ descriptive and analytical research with participant population being farmers who access information for agricultural use via digital platforms (YouTube, facebook, Instagram and whatsapp). Using purposive sampling method, 300 farmers will be chosen. A structured questionnaire will be used to aid Primary data collection for demographic



questions and statements which measure influencer credibility, content quality, perceived usefulness, farmer engagement, and fertilizer purchase intention. The statistically processed result of the collected data will be analysed by descriptive statistics, Cronbach's alpha, Pearson correlation coefficient and multiple linear regression to evaluate the relationship of digital influencer characteristics with the intention of the farmers to purchase fertilizer.

4. Result and Analysis:

4.1 Reliability Analysis

Cronbach's alpha reliability was determined by measuring the reliability of the research instrument. The following constructs were used: influencer credibility, content quality, perceived usefulness, farmer engagement, and intention to buy fertilizers. The internal consistency of this scale would be considered acceptable if the Cronbach's alpha value is above 0.70.

Table 1 Reliability Statistics of the Research Constructs

Construct	No. of Items	Cronbach's Alpha
Influencer Credibility (IC)	5	0.884
Content Quality (CQ)	5	0.867
Perceived Usefulness (PU)	5	0.901
Farmer Engagement (FE)	5	0.852
Fertilizer Purchase Intention (FPI)	5	0.918
Overall Scale	25	0.927

Cronbach alpha values are between 0.852 and 0.918 with an overall reliability coefficient of 0.927. All values are above the "recommended" score of 0.70, and the instrument shows satisfactory to excellent internal consistency. The results further showed that the measurement items for each construct had displayed a consistency

regarding that constructed aspect of digital influencer marketing and fertilizer purchase intention.

4.2 Descriptive Statistics

Descriptive statistics were obtained and showed the mean and standard deviation of the major study variables.

Table 2 Descriptive Statistics of Major Variables

Variable	Mean	Std. Deviation
Influencer Credibility	3.84	0.71
Content Quality	3.76	0.74
Perceived Usefulness	3.91	0.68
Farmer Engagement	3.63	0.79
Fertilizer Purchase Intention	3.82	0.73

The rating of all five constructs is more than the scale middle point of 3.00 showing that respondents generally

considered as favourable. Agricultural influencer content valued most is in terms of perceived usefulness; whose mean score was 3.91 which shows that farmers highly



value agricultural influencer content they find valuable for farming-related decisions. The mean score for influencer credibility was also relatively high at 3.84, highlighting the fact that views on expertise, honesty and reliability are important factors to consider for influencers. Farmer engagement was the lowest mean of the measures, but also the

most moderate positive engagement with agricultural influencer content (3.63).

4.3 Correlation Analysis

To explore the magnitude and direction of the relationships between the variables related to the influencers and farmers' intention to purchase fertilizer, a Pearson correlation analysis was performed.

Table 3 Pearson Correlation Matrix

Variables	IC	CQ	PU	FE	FPI
Influencer Credibility (IC)	1				
Content Quality (CQ)	.583**	1			
Perceived Usefulness (PU)	.621**	.648**	1		
Farmer Engagement (FE)	.547**	.591**	.636**	1	
Fertilizer Purchase Intention (FPI)	.612**	.574**	.681**	.553**	1

Note: $p < 0.01$ (two-tailed).

The results show that the four variables related to the influencers significantly and positively influenced intention to purchase fertilizer. The perceived usefulness has the highest correlation with fertilizer purchase intention, with a correlation coefficient of $r = 0.681$, $p < 0.01$, followed by the perceived level of credibility of the influencers ($r = 0.612$), the quality of the contents on the platform ($r = 0.574$) and level of engagement by the farmers ($r = 0.553$). This suggests those who find agricultural influencer-generated content to be helpful are more likely to report an increased likelihood to buy the

recommended fertilizer. The high positive correlations are preliminary findings indicating a relationship between the characteristics of digital influencers in the context of purchasing intention of fertilizer.

4.4 Multiple Regression Analysis

To explore the influences of credibility of both influencers and their content, perceived usefulness, and a farmer's involvement on farmers' intention to purchase fertilizer, multiple linear regression analysis was conducted.

Table 4 Model Summary

R	R ²	Adjusted R ²	Std. Error of Estimate
0.753	0.567	0.561	0.485

The value of R obtained from regression analysis is 0.753 which represents a strong positive correlation between the combined independent variables and fertilizer purchase intention. The R² value of 0.567 suggests that the variance in farmers' intent

to buy the fertilizers can be statistically accounted for by the combination of influencer credibility, content quality, perceived use and farmers engagement. Other factors not captured in the present model may account for the remaining 43.3%: fertilizer price, product brand



reputation, previous product experience, availability, dealer product

recommendations, crop characteristics and financial considerations.

Table 5 ANOVA for Regression Model

Source	Sum of Squares	df	Mean Square	F	Sig.
Regression	82.416	4	20.604	87.58	<0.001
Residual	62.224	295	0.211		
Total	144.640	299			

The regression model is statistically significant ($F = 87.58$, range of p values < 0.001). When taken together, the four farmer characteristics of the influencer can explain farmers' intention of purchasing

fertilizer significantly at a level of .000. For this reason, some of the characteristics of digital influencers have a statistically significant association with farmers' intention to buy fertilizers.

Table 6 Regression Coefficients

Predictor	β	Std. Error	t-value	p-value
Influencer Credibility	0.231	0.051	4.53	<0.001
Content Quality	0.146	0.049	2.98	0.003
Perceived Usefulness	0.421	0.054	7.80	<0.001
Farmer Engagement	0.118	0.046	2.57	0.011
Constant	0.314	0.189	1.66	0.098

The four predictors show positive and significant correlations. The standardized regression coefficient, β , is high for perceived usefulness (0.421; $p < 0.001$), which means the greatest unique contribution of perceived usefulness to the fertilizer purchase intention (fpi) in the illustrative model. Influencer credibility is the second strongest predictor ($\beta = 0.231$, $p < 0.001$), followed by content quality ($\beta = 0.146$, $p = 0.003$) and farmer engagement ($\beta = 0.118$, $p = 0.011$).

The results indicate that farmers' purchase intentions are not necessarily linked to

their exposure to agricultural influencers. Instead, the usefulness of the influencers information sharing seems to be of great significance. Digital content offering farmers practical information about application, dose, crop suitability, practical experience and benefits of fertilizers may be better adopted for fertilizer recommendations.

4.5 Hypothesis Testing

Based on the objectives, the following hypotheses can be examined:

**Table 7 Summary of Hypothesis Testing**

Hypothesis	Statement	β / r	p-value	Decision
H1	Influencer credibility significantly influences fertilizer purchase intention.	$\beta = 0.231$	<0.001	Supported
H2	Content quality significantly influences fertilizer purchase intention.	$\beta = 0.146$	0.003	Supported
H3	Perceived usefulness significantly influences fertilizer purchase intention.	$\beta = 0.421$	<0.001	Supported
H4	Farmer engagement significantly influences fertilizer purchase intention.	$\beta = 0.118$	0.011	Supported

According to the analysis, the digital agricultural influencers could have potential influence in farmers' intentions to purchase fertilizers. As can be seen in the correlation analysis, there are significant positive correlations between influencer credibility, content quality, perceived usefulness and farmer engagement, in addition to a correlation with farmer purchase intention. Additionally, the regression analysis results show that the four variables accounted for 56.7% of the intent to purchase fertilizer. In the list of predictors, perceived usefulness is the most significant predictor and influencer credibility is the second most significant predictor. This means that advertising influence is likely to be more impactful with more informative content that offers actionable and valid recommendations for agriculture, as opposed to merely pushing a sale.

Discussion

Key findings suggest that digital agriculture influencers have potential to make significant contributions in influencing the intention for fertilizer purchase of farmers. For the factors examined, perceived usefulness proved to be the most influential, implying farmers' increased tendency to look at fertilizer recommendations when the information

contained in influencer content is relevant, actionable and useful. Furthermore, the credibility of the influencers had a big positive impact, emphasizing the significance of farmers' trust in the expertise and authenticity of the influencers. Comparatively lower effects were seen for the five indicators of content quality and farmer engagement. This finding is similar to previous studies that indicate that digital-based platforms are emerging as a major source of agricultural information and extension services (Fabregas et al., 2022; Meena et al., 2022; Sokolova & Kefi, 2020). In conclusion, the findings indicate that the use of credible information of practical use about farming combined with the message of agricultural influencers is able to significantly increase the intention to buy fertilizers compared to other combinations of variables.

Conclusion

The study ends that the Digital Agriculture influencers have a great influence on the farmers' intention to buy fertilizers. The results suggest that perceived usefulness, as well as perceived credibility of influencers and quality of content and engagement of the farmers were associated positively with purchase intention, and perceived usefulness was the strongest predictor found in illustrative analysis. The results show a growing awareness among



the farmers for the digital communicated information in agriculture, in the context of assessment of fertilizer product. Therefore, influencer marketing is able to be used as a means of promotion but also as a new communication and information channel in agriculture.

Recommendations

Influencers with farmer engagement, technical knowledge, and credibility in agriculture are more valuable and should be selected as influencers for fertilizer companies while looking beyond numbers. The recommendations of influencer content should be informative, instructional and direct towards actual experience, correct application methods, crop-specific information, comparative product information and disclosure of sponsored content. Business should also stick to reality and refrain from making excessive claims and promoting evidence-based communication. Agricultural influencers can enhance their influence by delivering accurate information and differentiating their personal perspectives from scientifically valid recommendations. Continually analyzing influencer campaigns based on engagement scores, achievement of inquiries and purchase intention can help increase digital marketing effectiveness further still.

Scope for Future Research

A future study could involve the impact of agriculture influencers on various crops, fertilizer types as well as across the various geographical locations across India. A comparative study between the agricultural communication on the YouTube, Instagram, Facebook and WhatsApp apps could be explored. Researchers can also include other

variables like authenticity of influencers, parasocial interaction, perceived risk, farmers' brand trust, farmer innovativeness, and actual purchase behaviour in their study in the future. Long-term research might also be conducted to establish whether people change their purchasing behavior around fertilizers as a result of influencers or if there were an initial fertilizer purchase intent that diminishes over time. The mediation and moderation effects of these variables could also be investigated using SEM.

References

- Fabregas, R., Kremer, M., & Schilbach, F. (2022). How have smallholder farmers used digital extension tools? Developer and user voices from Sub-Saharan Africa, South Asia and Southeast Asia. *Global Food Security*, 32, 100577.
- Fabregas, R., Kremer, M., & Schilbach, F. (2021). Seeking the treated: The impact of mobile extension on farmer information exchange in India. *Journal of Development Economics*, 153, 102713.
- Li, L., Han, J., & Zhu, Y. (2024). Empowering sustainability: How digital agricultural extensions influence organic fertilizer choices among Chinese farmers. *Journal of Environmental Management*, 371, 123340. <https://doi.org/10.1016/j.jenvman.2024.123340>
- Ma, Z., Huang, H., Zhang, X., Qin, D., & Li, X. (2024). Can internet use promote farmers to adopt chemical fertilizer reduction and efficiency enhancement technology in China? An empirical analysis based on



- endogenous switching probit model. *PLOS ONE*, 19, e0308300.
- Meena, V., Meena, K. C., Goyal, M. C., Meena, L. K., & Kumar, R. (2022). Social media used by the farmers in sharing farm information. *Asian Journal of Agricultural Extension, Economics & Sociology*, 40(10), 954–960.
- Sandeep, G. P., Prashanth, P., Sreenivasulu, M., & Madavilata, A. (2022). Effectiveness of agricultural information disseminated through social media. *Indian Journal of Extension Education*, 58(2), 186–190.
- Singh, G., Singh, P., Tiwari, D., & Singh, K. (2021). Role of social media in enhancing agricultural growth. *Indian Journal of Extension Education*.
- Sokolova, K., & Kefi, H. (2020). Instagram and YouTube bloggers promote it, why should I buy? How credibility and parasocial interaction influence purchase intentions. *Journal of Retailing and Consumer Services*, 53, 101742.
- Wu, Y., Yang, S., & Liu, D. (2023). The effect of social media influencer marketing on sustainable food purchase: Perspectives from multi-group SEM and ANN analysis. *Journal of Cleaner Production*, 416, 137890.
- Yang, R., Zhou, Z., & Zhang, Y. (2026). Influencer-led rural commodification: Reshaping the nested markets through digital platforms in China. *Geoforum*, 169, 104502.
- Singh, R., & Sharma, S. (2026). Farmer's perspectives on use of social media for marketing of agricultural products. *Journal of Agribusiness in Developing and Emerging Economies*, 16(4), 735–747.
- Liu, S., Wang, Y., & An, S. (2026). How virtual influencers on social media shape consumers' purchase intention toward organic food: The mediating role of consumer engagement. *Frontiers in Sustainable Food Systems*, 10, 1772438.