

Adoption of Digital Marketing among Bumiputera Agropreneurs in Malaysia: The Role of Social Influence, Economic Factors, Convenience and Facilitating Conditions

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ABSTRACT

Digital marketing promotes a seller's platform through digital technologies like websites, social media platforms, or mobile shopping apps. Marketers have increasingly adopted digital marketing to reach customers. In addition, the government also encourages business owners to incorporate digital marketing into their operations because it can significantly impact their business by helping them reach a wide range of customers both domestically and internationally. Therefore, the primary aim of this study is to examine the adoption of digital marketing among agropreneurs in Perlis. Survey questionnaires were distributed to 86 agropreneurs in Perlis using a simple random sampling approach. Results indicate that social influence, convenience and facilitating conditions are positively related to adopting digital marketing among agropreneurs in Perlis. This study concludes with several recommendations to help agropreneurs enhance their understanding and skills in adopting digital marketing strategies.

Keywords: *Convenience, Digital Marketing, Economic Factors, Facilitating Conditions, Social Influence*

INTRODUCTION

In Malaysia, Small and Medium Entrepreneurs Business (SMEs) are urged to use technology and adapt to the current business landscape to enhance their operations and become a high-income nation through productivity-driven growth (Teh & Kee, 2020; Selvaratnam, 2022). The adoption of technology by SMEs is influenced by several factors, including social influence, economic factors, convenience and facilitating conditions (Ghalandari, 2012; Shi et al., 2024; Soong et al., 2020). Malaysia hosted the

introduction of the Digital Free-Trade Zone (DFTZ) platform in 2017. It was the first digital platform outside of China, giving Malaysians over 60,000 jobs. In light of this, the Malaysia Digital Economy Corporation (MDEC) urged SMEs to use that platform to engage in e-commerce (Ariffin et al., 2023; Koe & Wulandari, 2023).

Moreover, in today's rapidly evolving digital landscape, the adoption of digital marketing has become a pivotal strategy for businesses across various sectors. Agropreneurs, or agricultural entrepreneurs, increasingly recognize the importance of digital tools and platforms to enhance their market reach, improve their customer engagement, and drive their sales growth (Morris & James, 2017). According to Afifah et al. (2022), SME in Malaysia have adopted some form of digital marketing, but the adoption rate among entrepreneurs remains lower, estimated at less than 20% over the past five years. In Perlis the Digital Plan 2021-2025 also highlights that limited digital infrastructure, low digital literacy and lack of awareness have constrained the ability of agropreneurs in Perlis to adopt e-commerce and digital marketing effectively. The development of digital competencies among SMEs especially in agribusiness as a strategic priority to drive local economic growth (Unit Perancang Ekonomi Negeri Perlis, 2021). Digital marketing allows agropreneurs to connect with a broader audience, streamline operations, and compete more effectively in the global market. Despite these advantages, the adoption of digital marketing within the agribusiness sector varies significantly, which was influenced by a range of factors. According to Low et al. (2022), the digital economy is the transformation of all economic sectors, including the agricultural sector, through the digitalization of information enabled by companies.

Despite the obvious advantages of digital marketing, agropreneurs encounter many obstacles while implementing these tools (Ra et al., 2019). Some factors, including convenience, economic factors, social impact, and enabling conditions, are important in determining how widely and successfully digital marketing is adopted. This is particularly relevant in Perlis, where agropreneurs are mostly small-scale farmers operating in rural areas. The economy states are heavily reliant on the agriculture and manufacturing sectors, with a significant portion of the population involved in paddy cultivation and small-scale industries (Economic Planning Unit, 2022; cited in Adnan et al. 2024). However, Rahim et al. (2023) stated that Perlis continues to lag in the use of digital marketing platforms. By understanding these factors, it helps the agropreneurs in rural areas like Perlis to create strategies in overcoming obstacles and using digital marketing to improve their company outcomes. The acceptance of internet devices in Malaysia is generally positive, although not everywhere, particularly in rural regions. Aside from that, exposure to and proficiency with the digital marketing platforms are crucial for boosting a nation's adoption of digital marketing.

Perlis was chosen as the focus of this study because it represents a unique context characterized by limited digital infrastructure, smaller farm sizes, and lower rates of technology adoption compared to more urbanized states (Adnan et al. 2024; Rahim et al. 2023). The findings from Perlis are expected to provide important insights for similar rural agricultural communities across Malaysia. Therefore, the objective of this study is to investigate the factors of social influence, economic factors, convenience and facilitating conditions that influence the adoption of digital marketing among agropreneurs in Perlis. Furthermore, it also provides insights that can help to address these challenges and promote more widespread and effective use of digital marketing in the agribusiness sector.

LITERATURE REVIEW

This section will provide a discussion on previous literature related to the topic. It will begin with a discussion on the adoption of digital marketing, social influence, economic factors, convenience, and facilitating conditions.

Digital Marketing Adoption

Digital technologies have transformed the way marketing is conducted. Digital marketing refers to applying the internet and related digital technologies in conjunction with traditional communications to attain marketing objectives (Chaffey & Chadwick, 2016). Moreover, digital marketing encompasses any marketing activity that leverages the Internet to engage with clients through various digital channels, including Search Engine Optimization (SEO), social media, and email (Saravanan Ravi, 2023). Marketing strategies have evolved beyond the traditional 4Ps of product, price, place, and promotion, where digitization has changed the landscape of entrepreneurial activity by contributing to personalized marketing (Yong, 2023). Entrepreneurs utilize digital marketing to create markets for products and services. There are many areas of study incorporating digital marketing, such as non-bank financial service firms, including insurance companies (Warni, Rinandy, Dahlan, & Gunarti, 2024), agriculture (Palamiswamy & Arun, 2021), retail industries (Umadevi & Sundar, 2023), and tourism industry (Sharma & Sharma, 2024).

The major goal of a business is to provide significant value to its customers by utilizing modern technologies such as digital media (Upadhyay, 2022). Previous studies by several authors have discussed various elements commonly used in digital marketing, such as purchasing, perception, behavior, performance, value and space (Shrama 2013; Kamal, 2016; Singh, 2016; Efendioglu & Durmaz, 2016). Shrama (2013) explored the concept of purchasing products through digital marketing in the context of rural markets, highlighting key considerations such as branding and media. Moreover, Singh (2016) asserted that the perception of digital media is influenced by how users of information technology are viewed by their customers. Furthermore, Efendioglu and Durmaz (2016) discussed the behavior change of users, periods, and benefits of digital marketing, as well as a comparison of traditional and digital marketing. This is supported by the findings from Chaundri and Anute (2022), where digital marketing adoption had improved the sales and profit of agricultural service companies in India. However, Yong (2023) and Ibrahim et al. (2016) have demonstrated that small businesses face challenges in adopting digital marketing because they often lack the financial resources to procure and implement relevant digital tools, unlike larger firms. Due to this reason, digital marketing is adopted as a marketing and sales tool to develop a competitive edge.

Social Influence

Social influence has significantly impacted the adoption of digital marketing technologies among agropreneurs. Within the framework of the Unified Theory of Acceptance and Use of Technology (UTAUT), social influence is defined as the degree to which individuals perceive how important others believe they should use a particular technology (Venkatesh et al., 2003). In the context of agriculture, this perception is often shaped by interactions within social networks, including family, peers, extension services, and online communities. Recent studies have highlighted the role of social networks in influencing the adoption of digital marketing tools among farmers. For instance, studies in Peninsular Malaysia found that social influence was a key factor in agropreneurs' decision to adopt social media marketing, with Facebook being the most widely used platform (Jamaludin et al., 2020; Nawi et al., 2020a). Similarly, a study in Vietnam identified social media participation as a significant predictor of farmers' adoption of agricultural technologies, suggesting that active engagement in online communities can enhance the diffusion of digital marketing practices (Uy et al., 2024).

Moreover, the influence of social networks extends beyond online platforms. A study in China demonstrated that both kinship and general social networks positively affected farmers' adoption of ecological farming technologies, indicating that traditional social structures continue to play a crucial role in technology adoption (Wei & Yang, 2022). This finding underscores the importance of considering local social dynamics when promoting digital marketing adoption among agropreneurs. However, the impact of social influence is dissimilar across all contexts. In some cases, strong social networks can either facilitate or delay the adoption of new technologies, depending on the prevailing

attitudes and norms within the community (Zheng et al., 2022). Thus, understanding the specific characteristics of social networks in different agricultural settings is essential for designing effective strategies to encourage the adoption of digital marketing tools. In summary, social influence plays a critical role in the adoption of digital marketing among agropreneurs. By taking advantage of existing social networks and encouraging positive perceptions within these communities, it is possible to enhance the use of digital marketing technologies in the agricultural sector.

Economic Factors

Economic considerations significantly influence agropreneurs' decisions to adopt digital marketing strategies. The cost of digital infrastructure includes internet connectivity, mobile devices, and digital platforms, can either serve as a barrier or an enabler depending on the financial capacity of the agropreneur (Lowenberg-DeBoer, 2022). In rural agricultural settings, limited access to affordable ICT tools has been cited as a major economic constraint that hampers the widespread uptake of digital marketing practices (OECD, 2022). Conversely, agropreneurs with higher income levels or those engaged in commercial-scale farming are more likely to invest in digital marketing tools due to the expected return on investment through increased market reach and revenue (Chege et al, 2024; Liu, Zhang and Li, 2024).

Furthermore, digital marketing has emerged as a powerful tool for agropreneurs to bypass traditional intermediaries, resulting in reduced transaction costs and improved profit margins (Lowenberg-DeBoer, 2022). By leveraging digital platforms such as social media and e-commerce, farmers can engage directly with consumers, thereby enhancing price transparency and market access. For instance, Osei and Abeney (2022) who utilized digital marketing tools experienced an increase in both volume of sales and selling price. Nawi et al. (2020a) found that Malaysian agropreneurs who adopted social media marketing were able to reduce their dependence on middlemen, leading to increased profitability and better consumer engagement. Similarly, Ndekwa et al. (2023) reported that digital tools enabled small-scale farmers in Sub-Saharan Africa to access multiple buyers, which has not only increased their profit margins but also transformed their market participation dynamics. This is supported by Abdesselam and Benmeriem (2023) who documented how a digital agriculture startup in Algeria facilitated disintermediation by connecting farmers directly to consumers, enhancing distribution efficiency and food accessibility. Therefore, these findings suggest that digital marketing significantly empowers agropreneurs by minimizing cost of intermediary involvement and maximizing economic returns.

Moreover, economic literacy is important for agropreneurs to adopt and sustain digital marketing strategies. Those with better understanding of financial planning and budgeting are more likely to allocate resources towards digital investments and evaluate their cost-effectiveness over time (Ndukwe et al, 2023). However, many small-scale agropreneurs, especially in developing economies face challenges related to low financial inclusion, poor access to credit, and limited exposure to financial advisory services, which collectively weaken their ability to engage with digital marketing solutions in a meaningful way (Peprah et al, 2021; Gichuki & Kamau, 2022; Omeje et al., 2022). To conclude, economic factors play a crucial role in the adoption of digital marketing among agropreneurs. While high costs of digital tools and poor ICT access in rural areas can be major barriers, those with more income or commercial farms are more likely to invest in them for better market reach and profits. Digital marketing helps to reduce middlemen, lower transaction costs, and improve farmer-consumer connections. However, many small-scale farmers lack financial literacy and access to credit, which limits their ability to use these tools effectively.

Convenience

The growing interest in digital marketing among agropreneurs is closely tied to how user-friendly and efficient these technologies are. In agricultural environments where time is a precious commodity, digital tools that reduce complexity and save time are naturally appealing to farmers and agribusiness owners. Perceived ease of use refers to the degree to which a person believes that using a particular system would be free of effort has emerged as a crucial predictor of whether agropreneurs will embrace digital platforms. As tools become more intuitive and accessible, their appeal increases, especially when they are aligned with the practical demands of rural business operations. This pattern reflects a broader shift in the agriculture sector, where technology is no longer seen as a luxury but a necessary tool for survival and competitiveness.

Several regional studies provide empirical backing for the importance of convenience in digital marketing adoption. A study by Nawi et al. (2020a) focused on agropreneurs in Peninsular Malaysia has observed that user-friendly social media platforms such as Facebook were more readily adopted by farmers when they could be easily incorporated into their marketing practices. The simplicity in usage and the minimal learning curve played a significant role in motivating agropreneurs to integrate social media into their business routines. This finding is particularly relevant in settings where formal digital training is limited, and technology must be self-taught. The role of convenience is magnified in such scenarios, which often becomes the tipping point for adoption. Several regional studies provide empirical backing for the importance of convenience in digital marketing adoption.

Meanwhile, a study by Buvár et al. (2023) explores how online communities enhance digital adoption. Their study found that engagement in digital marketing forums and social media groups significantly increased both trust in and ease of using digital tools. This sense of community and peer learning reduces the perceived risk and complexity which is often associated with digital marketing. For agropreneurs who may lack formal support structures, these informal networks become vital. They not only disseminate practical tips but also foster a culture of experimentation, where farmers feel empowered to try out digital tools without fear of failure or financial loss.

In the Indian context, Sudha et al. (2024) explored mobile app adoption among Farmer Producer Companies (FPCs) and found that perceived ease of use was a strong driver of adoption, particularly when it is accompanied by adequate digital literacy. Their findings suggest that even the most convenient tools can fall short if users lack the basic skills to operate them. Meanwhile, in the Philippines, Oblena and Anapi (2023) found that access to clear, actionable information greatly enhanced e-commerce adoption among farmers. Farmers who perceived e-commerce platforms as easy to use and who had sufficient awareness of their benefits were far more likely to engage with them. These findings underscore the need for not just accessible tools, but also the knowledge and confidence to use them effectively.

Among younger farmers, the relationship between convenience and digital tool adoption is even more pronounced. Sasmita et al. (2024) examined Indonesian millennial agropreneurs and found that those with stronger digital communication skills were significantly more inclined to use digital tools. The convenience of managing marketing efforts remotely often from a smartphone that is combined with the ability to integrate these tools into existing agricultural practices has been proven highly attractive to this group. Their comfort with digital platforms made them more receptive to trying new tools, especially those that promised to streamline operations and reduce manual workload. Thus, these recent studies emphasize that the appeal of digital marketing lies not just in its potential benefits, but in how it easily and seamlessly fits into agropreneurs' everyday business routines.

Facilitating Conditions

In recent years, the agricultural sector has experienced a wave of digital transformation. Agropreneurs are increasingly turning to digital marketing to streamline business operations, enhance customer engagement, and extend market reach. However, the successful adoption of these tools depends heavily on a range of supporting factors known as facilitating conditions which include infrastructure, financial resources, digital literacy, and institutional support. It is crucial to understand how these conditions influence adoption in order to address implementation challenges and ensure inclusive participation in the digital economy (Khan et al., 2022). Facilitating conditions are defined in the Unified Theory of Acceptance and Use of Technology (UTAUT) as the external factors such as infrastructure, financial means, and institutional frameworks that enable or inhibit technology use (Venkatesh et al., 2003). In the context of agriculture, this includes access to internet services, technical infrastructure, funding, education, and policy support (Alam et al., 2021). Agropreneurs who are especially based in rural and semi-rural communities are often faced with structural barriers like unreliable connectivity, limited access to digital tools, and a lack of technical training (Iqbal et al., 2023). Without targeted support, such barriers can stall or prevent the adoption of digital marketing (Chaudhry & Ahmed, 2022).

Robust infrastructure is the foundation of digital marketing. Musa et al. (2024) identified reliable internet access as a key enabler in helping agropreneurs to adopt digital platforms. In many rural areas, the connectivity remains unstable, and this makes it difficult to run websites, manage social media, or utilize e-commerce tools (Ali et al., 2021). The expanding mobile and broadband coverage are essential. The government-led infrastructure projects that bring affordable internet to underserved regions have shown a positive effect on digital engagement in agriculture (Rahman et al., 2022). The access to financial resources significantly influences the ability of agropreneurs to adopt digital marketing tools. The cost of smartphones, software subscriptions, training, and platform fees can be prohibitive, especially for smallholder farmers (Bashir et al., 2023). Government subsidies, grants, and low-interest loans have effectively reduced this financial burden. Ahmad et al. (2023) reported that agropreneurs who have received financial assistance were more likely to invest in digital solutions. Similarly, microfinance programs which are tailored to technology adoption help to bridge the gap (Iqbal et al., 2024).

Even though there is accessibility of tools and funding, agropreneurs must also possess the skills to use digital marketing effectively. Digital literacy is the ability to understand, evaluate, and apply digital tools to business activities and this is the major factor which determines whether agropreneurs can succeed online or not. Unfortunately, many farmers in underserved areas have limited exposure to digital platforms (Singh et al., 2021). Programs which offer digital training are critical. Government agencies and NGOs have developed targeted workshops and online resources aimed at boosting digital confidence and skills among farmers (Musa et al., 2024). Collaborations with agricultural institutes and universities that provide continuous education on digital marketing also contribute to capacity-building (Ghani et al., 2023). Policy environments and institutional backing can create favourable conditions for digital adoption. Public policies that promote innovation, offer tax incentives, or support training programs can significantly encourage agropreneurs to adopt digital strategies (Chaudhry & Ahmed, 2022). In addition to formal policies, agropreneurs who received benefits from peer networks, cooperatives, and industry platforms are allowed to share experiences and gain knowledge. These communities often serve as trusted sources of guidance and reduce uncertainty on new technologies (Rahman et al., 2022; Iqbal et al., 2024).

Despite growing support, the challenges remain. Many agropreneurs still lack access to affordable technology, strong internet infrastructure, and high-quality digital training particularly in rural and marginalized areas (Bashir et al., 2023). Addressing these gaps will require a collaborative approach involving public institutions, private enterprises, and civil society organizations. Hence, facilitating conditions such as infrastructure, financial access, digital literacy, and institutional support

play a central role in enabling agropreneurs to adopt digital marketing. While the benefits of digitalization are clear, they are not evenly distributed. To ensure more inclusive participation, ongoing investment in digital infrastructure, financial assistance programs, and capacity-building initiatives is essential. Future research should examine how these conditions vary across geographic and socio-economic contexts, and what interventions are most effective in bridging the digital divide in agriculture.

METHODOLOGY

The study sample was agropreneurs who have registered under the Federal Agriculture Marketing Authority (FAMA) in Perlis, Malaysia. This study focuses on agropreneurs in Perlis due to the state's significant dependence on agriculture (Economic Planning Unit, 2022; cited in Adnan et al. 2024) and its relatively slower pace of digital transformation (Rahim et al. 2023). A total of 110 questionnaires were distributed via online survey to respondents. The questionnaires were distributed using a simple random sampling to the agropreneurs who registered with FAMA located in Perlis, Peninsular Malaysia. An online questionnaire was constructed using Google Forms and the link was posted on a WhatsApp group created specifically for the agropreneurs participating in answering the questionnaire. The questionnaire had three parts: respondents' profiles and the main part consisting of independent and dependent variables divided into five (5) measurements. The questionnaire employed for the study was an adaptation of the research instrument from the previous scholars (Chatterjee & Kumar Kar, 2020; Nawi et al., 2020b) with 22 items. All item measurements are measured with a five Likert scale (1-strongly disagree) to (5-strongly agree). The acceptability of the questionnaire was assessed by the reliability of the items based on Cronbach's Alpha as indicated in Table 1. Sekaran and Bougie (2010) suggested that a value of Cronbach's Alpha of more than 0.6 is acceptable.

Table 1: Reliability Analysis

Variables	Number of items	Cronbach's Alpha
Adoption of digital marketing	3	0.74
Social Influence	4	0.61
Economics	4	0.86
Convenience	5	0.63
Facilitating conditions	6	0.70

Quantitative data were then analyzed using Statistical Package for Social Sciences (SPSS 20) Descriptive analysis was performed to obtain frequencies, mean, and standard deviation. Bivariate correlation was used to test the relationship between each variable. To test a hypothesis, multiple regression analysis was employed to predict the power of the independent variable namely social influence, economic factors, convenience and facilitating conditions that affect agropreneurs toward digital marketing adoption.

FINDINGS AND DISCUSSION

A total of 110 online questionnaires were distributed among agropreneurs in Perlis. The researcher managed to gather 86 valid respondents from google forms. Table 2 reported the sample comprised of 58% male and 41.9% female agropreneurs in Perlis, Malaysia. Most of the respondents (44.2%) were 31 - 40 years old and involved for 1 - 2 years (37.2%) as agropreneurs. Most of them feel at ease using WhatsApp (83.7%) as their digital marketing platform. According to previous studies conducted among agropreneurs in Peninsular Malaysia revealed that Facebook emerges as the primary social media platform for marketing, with WhatsApp commonly used for direct customer engagement, while

Instagram and TikTok are used sporadically but not yet mainstream among agro-based micro-enterprises (Nawi et al., 2020b). The details of the respondents' profiles are presented in Table 2.

Table 2: Respondents' Profile

Demographic Factors	Categories	Frequency	Percentage (%)
Gender	Male	50	58.1
	Female	36	41.9
Age	Below 20 years old	0	0
	21 – 30 years old	33	38.4
	31 – 40 years old	38	44.2
	41 – 50 years old	14	16.3
	51 – 60 years old	1	1.2
Years of being agropreneur	1 – 2 years	32	37.2
	3 – 4 years	28	32.6
	5 – 6 years	16	18.6
	7 years and above	10	11.6
Digital marketing platform used	WhatsApp	72	83.7
	Instagram	5	5.8
	Facebook	4	4.7
	Agro Bazaar	5	5.8

Table 3 : Mean, Standard Deviation and Correlation Analysis

Variables	Mean	SD	1	2	3	4	5
Adoption of digital marketing	4.55	0.433	1				
Social Influence	4.63	0.334	.500**	1			
Economics	3.86	0.546	.120	.160	1		
Convenience	4.60	0.331	.572**	.322**	.138	1	
Facilitating conditions	4.64	0.308	.369**	.959**	.166	.218*	1

Significant $p < 0.01$ (2-tailed), significant $p < 0.05$ (1-tailed)

Table 3 describes the correlation analysis for the study variables. The results of Pearson Correlation analysis revealed adoption of digital marketing among agropreneurs is correlated positively and significantly with social influence ($r=.500$, $p<.01$), convenience ($r=.572$, $p<.01$), and facilitating conditions ($r=.369$, $p<.01$). However, the results indicated that the correlation between adoption of digital marketing and economic factors was not statistically significant. This suggests that, within the context of this study, economic factors do not appear to have a measurable effect on the adoption of digital marketing. A possible reason for the non-significant result could be the limited sample size, which may have reduced the statistical power of the test. The results of correlation analysis provide initial support for the study hypotheses.

Table 4: Multiple Regression Analysis

Variables	β	Significance
Social Influence	1.139	.000
Economics	0.021	.789
Convenience	0.358	.000
Facilitating conditions	-0.977	.001
R Square	.506	
Adjusted R Square	.481	
F Test	20.72	

Dependent Variable: Adoption of Digital Marketing

Table 4 indicates the result of the regression analysis. The analysis found that social influence ($\beta=1.139$, $p<0.05$) and convenience ($\beta=0.358$, $p<0.05$) had significant positive effects on the adoption of digital marketing while facilitating conditions ($\beta= -0.977$, $p<0.05$) had a substantial negative impact on the adoption of digital marketing. However, the results reported there were no significant impact between

economic ($\beta=0.021$, $p>0.05$) and adoption of digital marketing among agropreneur. The adjusted R square value between the variables is 0.481, which means that 48.1% variation in dependent variables (adoption of digital marketing) is explained by the changes of the independent variables (social influence, convenience, and facilitating conditions).

This study sought to explore the key determinants influencing the adoption of digital marketing among agropreneurs. This discussion has analyzed these results within the context of existing literature, providing a comprehensive understanding of how social influence, convenience, facilitating conditions, and economic factors shape the adoption of digital marketing among agropreneurs. The results showed that agropreneurs are more inclined to adopt digital marketing practices when they are influenced by their social networks, including peers, industry leaders, and other key stakeholders. This finding is consistent with extant literature that underscores the critical role of social influence in technology adoption (Sahu & Das, 2022).

In agropreneurial settings, where communities are often closely interconnected, the dissemination of information and innovations within these networks can drive the adoption of new technologies, including digital marketing tools. Previous studies also have demonstrated that social influence particularly through mechanisms like word-of-mouth and peer recommendations serves as a powerful driver of technology uptake (Hossain et al., 2023). For agropreneurs, the endorsement of digital marketing by trusted figures or successful peers can serve as a compelling motivator, highlighting its potential benefits for enhancing business operations. Furthermore, social influence may exert normative pressure, prompting agropreneurs to adopt digital marketing strategies to remain competitive and aligned with emerging industry trends.

Furthermore, it also indicates that agropreneurs are more likely to engage with digital marketing platforms that are perceived as easy to use and logistically efficient. The importance of convenience in technology adoption is well-documented, particularly in the context of perceived ease of use (Venkatesh et al., 2020). As digital tools become increasingly accessible and user-friendly, their appeal to agropreneurs is likely to grow, especially if these tools streamline operations and reduce time-consuming tasks. The role of convenience in adoption is particularly relevant for agropreneurs, who may face time constraints and operational challenges. The ability to manage marketing efforts remotely, at any time, using minimal effort, is a significant benefit. This aligns with the findings of Kumar and Singh (2021), who noted that the adoption of digital technologies in agricultural communities often hinges on their perceived convenience and the ability to integrate them into existing workflows without undue complexity. For agropreneurs, the convenience of digital marketing tools is a pivotal factor, facilitating their ability to market effectively while reducing operational burdens.

The results also proved that agropreneurs recognize the importance of facilitating conditions such as access to necessary resources, infrastructure, and support systems. Perhaps, these factors may not necessarily facilitate the adoption of digital marketing. Despite acknowledging the significance of facilitating conditions, agropreneurs may encounter challenges in accessing reliable internet services, digital literacy training, or technical support, which can hinder the adoption process. These findings are in accordance with the study conducted by Chen et al. (2022), who observed that inadequate infrastructure and limited digital literacy in rural areas can dampen enthusiasm for digital tool adoption. Furthermore, as Alalwan et al. (2021) highlighted, while facilitating conditions are vital, their absence or insufficiency can present a substantial barrier, even when the intention to adopt is strong.

Surprisingly, economic factors were not found to have a significant impact on the adoption of digital marketing. The result suggested that contrary to prevailing assumptions, economic considerations such as cost, profitability, or financial capacity do not appear to play a pivotal role in shaping agropreneurs' decisions regarding digital marketing adoption. This finding is in contrast with the previous studies that often highlight the critical role of economic resources in the technology adoption process (Chauhan & Singh, 2020). However, the lack of significance in this study may stem from various factors. As digital

marketing platforms become more affordable and accessible, particularly with the emergence of free or low-cost options, economic barriers may lose their relevance.

CONCLUSION

The adoption of digital marketing among agropreneurs is a multifaceted process influenced by technological, organizational, and environmental factors. This article has highlighted the critical aspects that impact the integration of digital tools in the agribusiness sector such as social influence, economic factors, convenience and facilitating conditions, particularly in regions like Perlis. Understanding these factors is essential for developing targeted strategies that can help agropreneurs to overcome barriers to adoption and fully leverage the benefits of digital marketing. By addressing challenges related to infrastructure, enhancing organizational readiness, and creating a supportive environmental framework, stakeholders can facilitate a more effective transition to digital marketing practices. Ultimately, this will enable agropreneurs to expand their market reach, improve customer engagement, and drive business growth in contributing to the overall advancement of the agribusiness sector. Conversely, this study focuses on Perlis, and it is crucial to note that the results may not be fully generalized to all regions in Malaysia. Future study should extend these findings in other states to build more comprehensive understanding of digital marketing adoption in agricultural sectors in Malaysia. This study suggests that future research could be used to better understand and impact agropreneurs' attitudes, intentions, and perceived control when adopting a digital platform. Furthermore, agricultural agencies should provide frequent training and mentorship programs to help agropreneurs develop their digital skills.

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AUTHORS' CONTRIBUTION

Ahmad, Z. conceptualized and designed the study, oversaw the methodology and discussion of results, and led the manuscript writing. Pahang, J.T. conducted the data analysis and ensured data verification. Ya, S. and Ibrahim, I.I. contributed to the literature review. Azizan, F.L. meticulously verified the content of the manuscript. Muhamat Anuar, N. A. Z. was key in data preparation and collection. All authors provided essential feedback, significantly shaping the research, analysis, and manuscript development.

CONFLICT OF INTEREST DECLARATION

We certify that the article is the Authors' and Co-Authors' original work. The article has not received prior publication and is not under consideration for publication elsewhere. This research/manuscript has not been submitted for publication, nor has it been published in whole or in part elsewhere. We testify to the fact that all Authors have contributed significantly to the work, validity and legitimacy of the data and its interpretation for submission to Jurnal Intelek.

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