

Determinants for Farmers' Decisions to Participate in Developing Agricultural Tourism Activities. An Empirical Study of Iraq's Economy

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As he cultivates agricultural land, the farmer plays a crucial role in agricultural tourism. Farmers with less innovativeness do not contribute to the nation's economic prosperity. Agriculture tourism in Iraq is not as advanced as in affluent countries. This study investigates the factors influencing farmers' participation in developing agricultural tourism in Iraq. This study is based on a previously unexplored gap in the literature because no previous research has investigated this gap. This study included secondary data and a Likert scale questionnaire for empirical proof. Participants in this study were Iraqi farmers. In this regard, the findings of this study are an addition to the literature and the body of knowledge since they reveal that the factors of farmers' actions have a substantial impact on agriculture tourism in Iraq. The study also has significant practical implications for enhancing Iraq's tourism industry for economic growth. Moreover, the theoretical ramifications of this study have contributed to the advancement of knowledge. The future directions of this research are essential for future agricultural tourism research.

Key words: Educated farmers, public access to farms, agricultural tourism, tourism economy, tourism marketing.

1. INTRODUCTION

The emergence of agricultural tourism is attributable to industrialized nations working in farming to offer employees a unique tourism experience (Pillay et al., 2013; Wu, 2018). Agricultural tourism is ideal in countries with agricultural fields that provide people with tourist attractions (Adom et al., 2021). Agriculture tourism plays a significant part in every nation's economic status as it helps improve and stimulate the economy (Adom et al., 2021; Tchouamou Njoya et al., 2020; Timms, 2006). Due to their passion, agriculture tourism now attracts tourists. Indonesia and Malaysia are regarded as linchpins for agricultural tourism to enhance the agriculture industry (Torres et al., 2004; Uduji et al., 2021). The tourism sector is enhanced by greater government facilitation (Di-Clemente et al., 2020). The governments attempting to strengthen the agriculture sector are implementing new policies for the growth of the agriculture sector using the latest and advanced technology (Miller et al., 2012; Testa et al., 2019). The equitable application of technology boosts agriculture sector productivity and contributes to agricultural tourism (Fleischer et al., 2005).

Educator farmers are paradigm shifters in agricultural tourism (Christian, 2012; Usman et al., 2021). The focus of educated farmers is not only on profiting from the output but also on working more efficiently (Zhao et al., 2020). The governments of the developed nations train their farmers to promote agricultural tourism (Poulianiti et al.,

2019). Indeed, tourism marketing plays a significant part in the tourism industry (Jana et al., 2022). Tourism marketing is utilized to give the public more accurate information to entice them to agricultural sector tourism (Anderson, 2018; Torres, 2003). Access to the internet by farmers is also acceptable for the promotion of agricultural products (Ráthonyi, 2013; Xu et al., 2021). To attract clients, rational farmers promote their agricultural products on the internet (Fleischer et al., 2005). The emergence of agricultural tourism is because new agricultural products stimulate the economy of any nation (Miller et al., 2012). The less emphasis placed on agricultural tourism, the lower the nation's economic growth productivity (Testa et al., 2019).

Numerous works have examined agricultural tourism in modern nations and its economic benefits (Christian, 2012; Poulianiti et al., 2019; Usman et al., 2021; Zhao et al., 2020). Similarly, there is research on the economic effects of the promotion of sustainable tourism (Anderson, 2018; Torres, 2003; Xu et al., 2021). Indeed, the existing literature on tourism in the agricultural sector also improves the performance of tourism for economic growth. Wu (2018) examined agricultural tourism from a sustainable perspective. Wut et al. (2022) noted that implementing good government policies can promote agricultural tourism. Nugroho et al. (2022) analyzed the contribution of agricultural tourism to sustainable economic growth in Indonesia and Thailand. However, no

study has examined the role of agricultural tourism from the farmers' perspective. In this regard, the theoretical framework of this study is intended to improve the tourism performance of the agricultural sector based on the decision-making processes of agricultural tourism. Therefore, this study aims to determine the factors influencing farmers' participation in developing agricultural tourism in Iraq.

This study is based on a previously unexplored gap in the literature because no previous research has investigated this gap. In this regard, the findings of this investigation would contribute to both the literature and the body of knowledge about the relationship considered in the study's conceptual framework. This study has examined farmers' education, internet connection, and public access to farms as independent factors. Similarly, the mediating variable of this study is tourism marketing, as tourism marketing is vital to the success of every nation. Lastly, the dependent variable of this study is agriculture tourism, which would aid in interpreting the empirical findings of this study to enhance tourism in Iraq. In addition, the study has practical and theoretical implications for boosting agricultural tourism in Iraq's economic development.

2. LITERATURE REVIEW

Farmers play a crucial role in promoting tourism (Savari et al., 2020). Farmers are the actual promoters of agricultural tourism because they produce the items themselves (Bhatta et al., 2019). Government policies play a crucial role in the agricultural tourism sector because they aim to improve farmers' performance by promoting sustainability in the tourism industry (Anang et al., 2019). Sustainability in agricultural output is only achievable if the government provides farmers with facilities to enhance their performance (Trede et al., 2000). Less emphasis is placed on tourism in these industries in agriculturally underdeveloped countries (Nurlaela et al., 2021). The economy can expand if educated farmers provide market-required goods (Fahad et al., 2018). On the other hand, prominent farmers are self-marketers since they promote their products on social media platforms to inform consumers (Pan et al., 2021). Canada's agriculturists are technologically savvy and are employing new methods to expand their tourism operations (Nurlaela et al., 2022). Agricultural tourism is affected by the farmer's leadership role in the sector to promote agricultural products in other nations for the benefit of the economy (Aubert et al., 2012).

H1. Educated farmers have an impact on agriculture tourism.

Modern production demand depends on technology (Mwambi et al., 2020). Technology is crucial since it is commonly used for information sharing (Misaki et al., 2016). Farmers that support one other by exchanging information on the internet and other social media platforms are visited by many international tourists interested in their products and services (Zhou et al., 2022).

Tourism in the agriculture sector is rising due to government initiatives, but farmers' promotion of agricultural products is the primary focus of agricultural tourism (Sapbamrer et al., 2022). Farmers can engage with the farming community and share their experiences due to the information made available through various media platforms (Trede et al., 2000). Due to the ASEAN agreement, Indonesian agricultural goods are now being cultivated in Thailand because farmers share information via the internet (Trede et al., 2000).

Similarly, farmers who are conversant with the internet and share knowledge on digital platforms are more productive than their traditional counterparts. Internet and other technologies have contributed to an increase in agricultural land output in several nations (Pan et al., 2021). More emphasis on technology improvement would emphasize the farmer's ability to make decisions based on shared information (Mwambi et al., 2020).

H2. Farmers' access to the internet has an impact on agriculture tourism.

Public access to agricultural areas is essential since it helps create cash (Camilleri, 2018). Small-scale farms in Thailand are accessible to the general public at prices that benefit the tourism industry (Kayumovich et al., 2019). Similarly, in the Scandinavian countries, agricultural production is open to the public, and anyone can visit these places to learn about sustainable agriculture (Kayumovich et al., 2019). Indeed, expanding the agricultural sector can boost economic growth; thus, several nations now welcome international tourists on their land (Minazzi, 2015). Modern public access to agricultural land is crucial since these activities provide farmers with substantial cash (Hays et al., 2013). However, government policy should be integrated with the tourism sector's performance to improve the development of enhanced amenities (Pholphirul et al., 2022). Undoubtedly, American farms are accessible to the public with an authorized ticket for tourism promotion (Hvass et al., 2012). The tourism sector's productivity would increase if the government emphasized the significance of tourism sector performance. Public access to agricultural land is a source of word-of-mouth marketing in Russia (Leung et al., 2013). It is unreasonable for the tourism industry to pay less attention to the welfare of people and their access to farms, as this diminishes farm productivity and generates unfavorable publicity (Pholphirul et al., 2022).

H3. Public Access to Farms has an impact on tourism marketing.

Tourism promotion is the best source for producing goods and services (Gretzel et al., 2014). Due to the expansion of tourist marketing in recent years, the tourism industry's marketing expertise has been increased by its growth (Lakmali et al., 2021). People interested in tourism are constantly looking for new tourist opportunities to attain their goals in the tourism industry (Pholphirul et al., 2021). Indeed, marketing tourist locations is essential since it

enables countries to expand economically (Hays et al., 2013). In addition, the importance of farm tourism can be raised if word-of-mouth marketing is conducted effectively (Leung et al., 2013). The Indonesian government is innovatively marketing its tourist destination globally to attract tourists (Minazzi, 2015). Countries with more effective tourism marketing efforts see a more significant influx of foreign tourists seeking agricultural products (Kayumovich et al., 2019).

H4. Tourism marketing has an impact on agriculture tourism.

Public access to tourist attractions enhances any nation's tourism performance (Camilleri, 2018). Appropriate development of the tourism industry is only achievable when the marketing of the tourism industry is inventive (Kayumovich et al., 2019). Creative marketing strategies offer a greater appeal to tourists, resulting in more tourists visiting the marketing destination (Leung et al., 2013). On the other side, underdeveloped nations cannot market

tourism effectively, which is a significant obstacle to the success of tourism in these nations (Pholphirul et al., 2022). The American government promotes tourism by marketing its destinations, especially cultural heritage sites, through commercial partnerships (Alghizzawi et al., 2018).

Similarly, the Canadian government is engaged in tourism promotion for agricultural products (Camilleri, 2018). Tourists are always drawn to marketing initiatives since they were previously unaware of tourist spots (Minazzi, 2015). Tourism marketing should suitably promote tourism for the sector's optimal growth (Hays et al., 2013). Agriculture tourism marketing is also necessary because this industry has the potential to attract tourists and contribute to the economy (Lakmali et al., 2021). Figure 1 illustrates the conceptual framework for this investigation.

H5. Tourism marketing mediates the relationship between public access to farms and agriculture tourism.

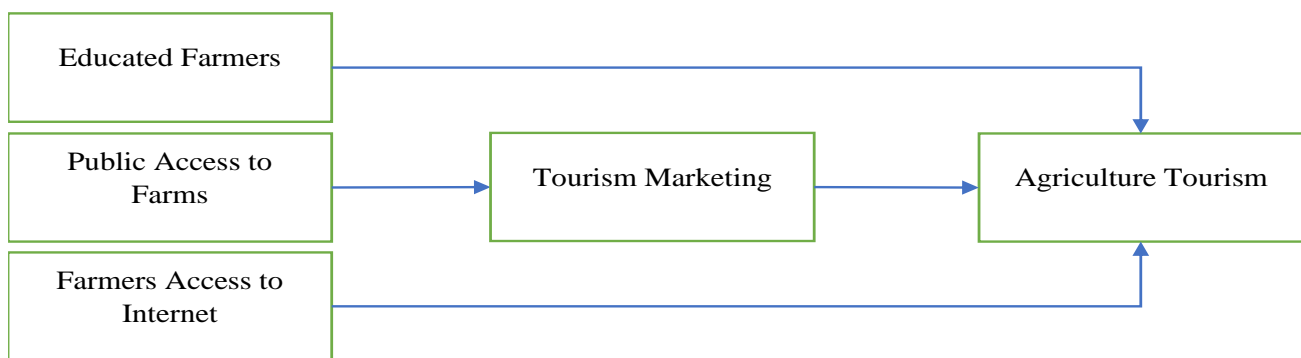


Figure 1. Conceptual Framework

3. RESEARCH METHODOLOGY

Every study has a distinct technique. This study is based on quantitative data because its objective was to give empirical evidence regarding the tourism industry's impact on Iraq's economy. This study collected a sample from the target population using a Likert scale questionnaire. The scale items for this study have been adapted from previous research because a scale for measuring these characteristics has previously been constructed. In the source research, Cronbach's alpha for these structures' items exceeded 0.70. This demonstrates the validity and dependability of the study's questionnaires. In addition, the factor loadings of each scale item were calculated, and only items with factor loadings exceeding 0.60 were included in this study. Sin et al. (2005) is the source for the tourism marketing scale. This study offered valid scale items. Second, the source for the farm tourism scale questionnaire is Testa et al. (2019), as the validity of the scale items is supported by this study. In addition, the farmer's online access to measuring items is regarded as a reputable source. Misaki et al. (2016), because this research also includes a questionnaire on validity.

Fourthly, the source of the public access to farms scale is Testa et al. (2019), as this study includes valid and reliable scale items. Lastly, the source of scale items for educated farmers is (Trede et al., 2000), as this research also includes valid scale items for establishing the link between variables incorporated into the study's conceptual framework.

The appropriate sample collection method is required for data gathering to validate the study's outcomes. Indeed, the study is centered on the decision-making factors of farmers; consequently, the relevant demographic for this research is Iraqi farmers. Printed questionnaires were distributed to responders. 730 questionnaires were distributed to respondents, who returned 644 responses. Respondents were given the study's introduction to collect the necessary data for this investigation. Indeed, individuals were eager to contribute to our analysis. They were rewarded for their participation in the study. The PLS measurement and structural model are considered for this investigation's conclusions.

4. FINDINGS

4.1 Convergent Validity

The concurrent validity test is employed to determine the dependability and validity of this study (see Figure 2). On the other hand, the research utilized the structural model to examine the influence of various factors on one another inside the conceptual framework. Current research determines Cronbach's alpha, factor loadings, composite reliability (CR), and average variance extracted (AVE) to assess the findings' reliability and validity. The suggested

CR criterion is 0.70 (Henseler et al., 2010), while the AVE requirement is 0.50. (Wong, 2013). Similarly, 0.60 is the suggested threshold for factor loadings (Hair Jr et al., 2020). However, the proposed reliability criterion for Cronbach's alpha is 0.70. (Ringle et al., 2015). The convergent validity results revealed the reliability and validity of the measurement scale used in the study. The specifics of convergent validity are provided in Table 1.

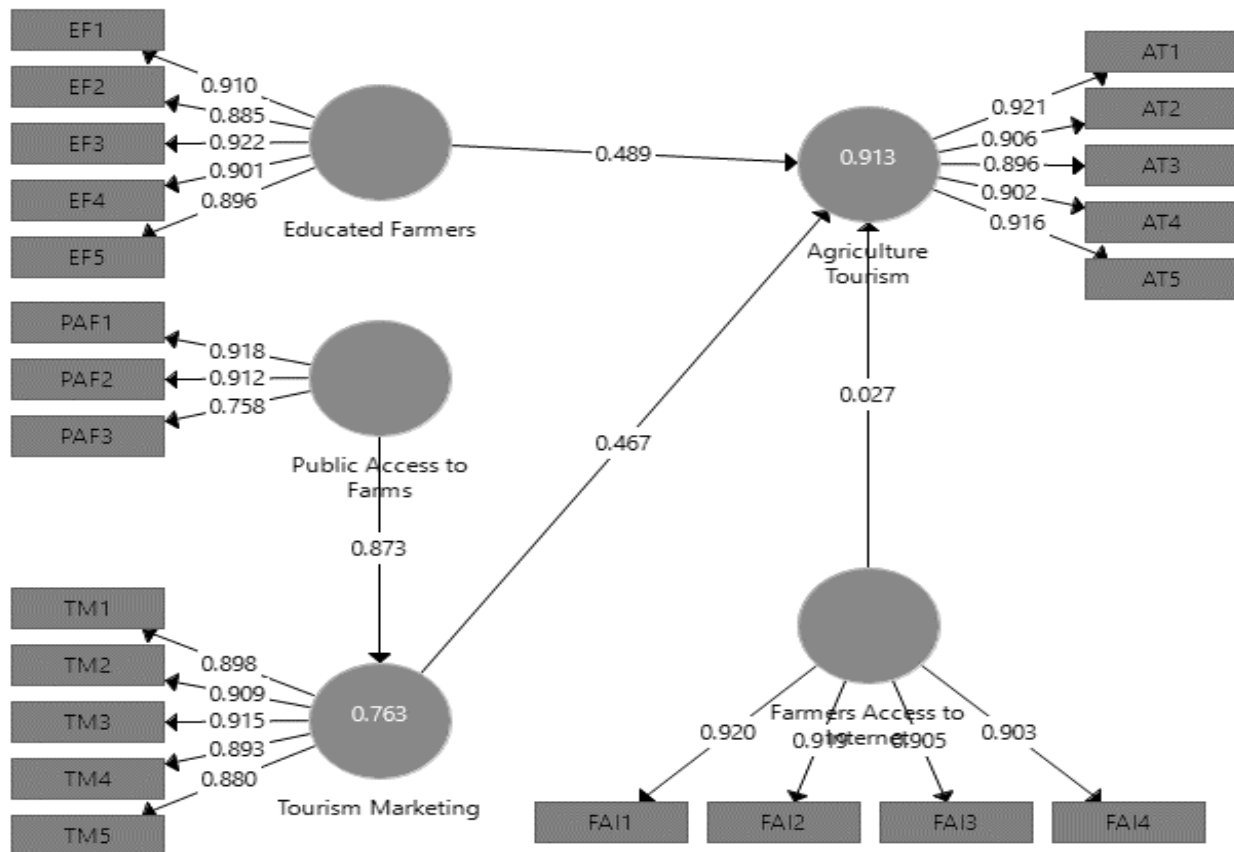


Figure 2. Measurement Model

Table 1. Convergent Validity Results

Constructs	Items	Factor Loadings	α	rho_A	CR	AVE
Agriculture Tourism	AT1	0.921	0.947	0.947	0.959	0.825
	AT2	0.906				
	AT3	0.896				
	AT4	0.902				
	AT5	0.916				
Educated Farmers	EF1	0.910	0.943	0.944	0.957	0.815
	EF2	0.885				
	EF3	0.922				
	EF4	0.901				
	EF5	0.896				
Farmers' Access to the Internet	FAI1	0.920	0.932	0.933	0.952	0.831
	FAI2	0.919				
	FAI3	0.905				
	FAI4	0.903				
Public Access to Farms	PAF1	0.918	0.831	0.858	0.899	0.750
	PAF2	0.912				
	PAF3	0.758				
Tourism Marketing	TM1	0.898	0.941	0.941	0.955	0.809
	TM2	0.909				
	TM3	0.915				

TM4	0.893
TM5	0.880

4.2 Discriminant Validity

This study also examined the conclusions of discriminant validity using the PLS algorithm (see Table 2). This investigation evaluates the differentiation across measurement scales based on the discriminant validity of questionnaire questions used to collect primary data. Gold et al. (2001) advocate the Heteritrait-Monotrait (HTMT)

technique for discriminant validity. The HTMT approach of discriminant validity has a validity threshold of 0.90 (Gold et al., 2001). There appears to be discriminant validity in the scale items of the study questionnaire. This indicates that the items measure distinct dimensions of each research construct despite reflecting the investigation variables.

Table 2. Discriminant Validity

	Agriculture Tourism	Educated Farmers	Farmers' Access to the Internet	Public Access to Farms	Tourism Marketing
Agriculture Tourism					
Educated Farmers	0.788				
Farmers' Access to the Internet	0.708	0.680			
Public Access to Farms	0.669	0.656	0.882		
Tourism Marketing	0.591	0.577	0.746	0.679	

4.3 Partial Least Square – Structural Model

This study tested the structural model with PLS Bootstrapping calculations (see Figure 3). In this regard, H1 results (t = 7.962) and (p = 0) discovered the impact of educated farmers is significant on agriculture tourism. Furthermore, H2 results (t = 0.867) and (p = 0.387) found the effect of farmers' access to the internet is insignificant on agriculture tourism. Thirdly, H3 results (t = 64.904) and

(p = 0) discovered the impact of public access to farms is significant on agriculture tourism. In the same way, H4 results (t = 6.421) and (p = 0) discovered the impact of tourism marketing is significant on agriculture tourism. Finally, H5 results (t = 6.397) and (p = 0) found the impact of tourism marketing as a mediator is significant between public access to farms and agriculture tourism. Measurement model results are available in Table 3.

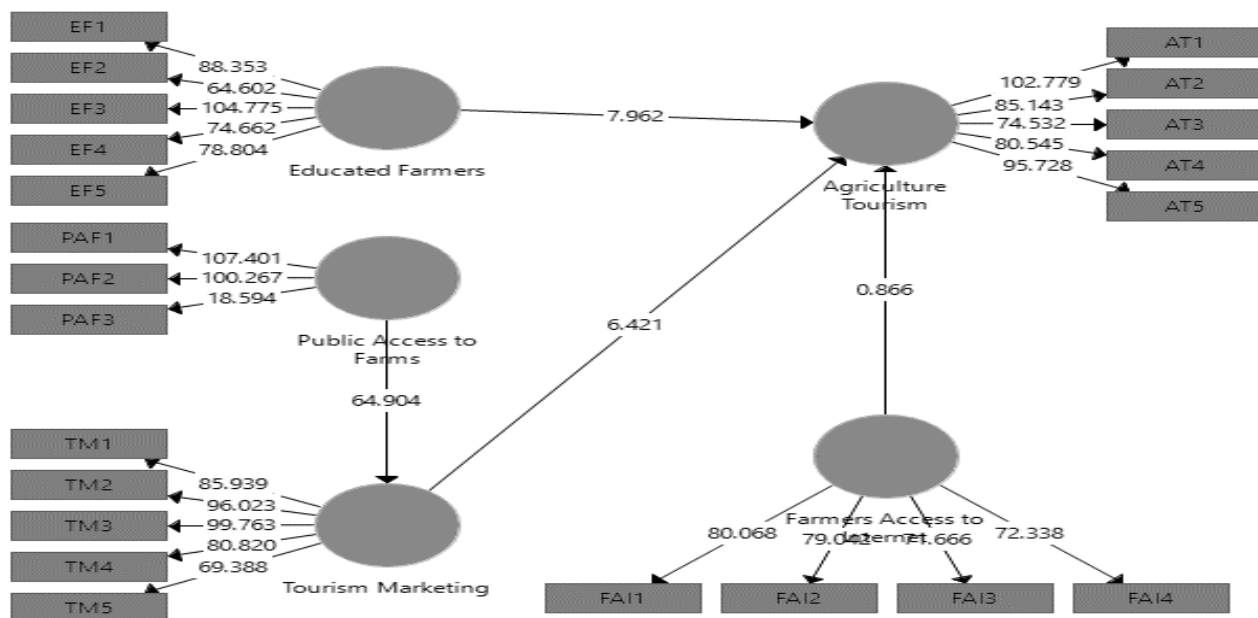


Figure 3. Measurement Model

Table 3. Measurement Model Results

No	Hypotheses	t	p
1	Educated farmers have an impact on agriculture tourism.	7.962	0
2	Farmers' access to the internet has an impact on agriculture tourism.	0.867	0.387
3	Public Access to Farms has an impact on tourism marketing.	64.904	0
4	Tourism marketing has an impact on agriculture tourism.	6.421	0

5. DISCUSSION AND CONCLUSION

This study's conclusions are based on a structural equation model. In this investigation, Smart PLS 3.0 was used. In this sense, the initial test of the hypothesis found a substantial correlation between educated farmers and agricultural tourism. Farmers with education produce things in a manner that is conducive to sustainable development (Trede et al., 2000). Agriculture tourism is influenced by farmers' development, which motivates them to engage in tourism promotion (Mwambi et al., 2020). Educated farmers in Canada and Australia, on the other hand, are more motivated to innovate (Zhou et al., 2022). The government must boost the performance of farmers by publishing information on the agriculture industry and conducting seminars to increase their comprehension (Aubert et al., 2012). The best farmers recruit educated workers to implement new agricultural production technologies (Sapbamrer et al., 2022). The findings of the second hypothesis lack statistical significance.

Regarding this, there is no correlation between farmer internet access and agriculture tourism. Indeed, the internet plays a proper function in tourism (Singh et al., 2013). However, Iraqi farmers are less educated and interested in accessing the internet. They do not view farm tourism as a crucial factor for tourism performance in this manner. Indeed, agriculture tourism is growing as farmers become more interested (Jung et al., 2021), but in the case of Iraq, farmers' internet access has no bearing on agriculture tourism. The lack of education among Iraqi farmers is also a significant barrier to agriculture output, which is essential for agriculture tourism in any country.

The results of the third hypothesis are noteworthy and consistent with previous studies. Indeed, the study revealed that the relationship between public access to farms and agro-tourism has a considerable impact. Without a doubt, the growth of the tourism industry can benefit from the development of public tourism facilities (Usman et al., 2021). People are encouraged to visit the countries attempting to modernize their farms and farms themselves (Christian, 2012). The upshot is an upsurge in agricultural tourism in these countries. The American agriculture sector's performance has improved due to the increased availability of agricultural products (Poulianiti et al., 2019; Zhao et al., 2020). In this approach, the emphasis on agriculture tourism might be heightened by trips to rural farms (Torres, 2003).

Similarly, this study concludes that agriculture tourism is suited to any nation where people are more inclined to visit agricultural farms (Anderson, 2018). The conclusion of the fourth hypothesis is crucial because it demonstrates that tourist marketing has a substantial effect on agro-tourism. Marketing in the tourist industry is necessary to increase public knowledge of agricultural products vital to society

(Camilleri, 2018). Farm tourism marketing in the United States is essential since it is crucial to attracting foreign tourists (Kayumovich et al., 2019). Indeed, tourism performance is enhanced by marketing that contributes to the sustainability of international visitor visits (Lakmali et al., 2021). The findings of this study indicate that the mediation of tourist marketing between public access to tourism and farm tourism is substantial. Appropriate development is required in tourism marketing to improve public comprehension of the tourism industry (Hays et al., 2013; Leung et al., 2013). The performance of Thailand's agricultural sector contributes to the expansion of the country's agro-tourism industry (Alghizzawi et al., 2018). In this way, agriculture tourism in Canada is also influenced by tourism marketing, which has enabled individuals to visit farms (Gretzel et al., 2014).

6. THEORETICAL AND TOURISM IMPLICATIONS

This study has significant practical and theoretical ramifications. Previous research has examined agro-tourism from various theoretical perspectives. In addition, the literature explored the connection between tourism marketing and tourism promotion. No specific study has, however, addressed the role of educated farmers in agriculture tourism. In this light, this study has identified farmer education as a critical aspect of agriculture tourism.

Similarly, our study has demonstrated the significance of the relationship between tourism marketing and agriculture tourism, while previous research ignored the impact of tourism marketing on farm tourism. Similarly, the importance of the relationship between public access to farms and tourism marketing has been highlighted in this study. The previous study has overlooked the relationship between public access to farms and tourism marketing. In addition, this study reveals the mediating effect of tourism marketing on the relationship between public access to farms and agriculture tourism. The mediating relationship is novel in the body of knowledge because previous researchers disregarded this link. As it explains the relationship between several new variables and agriculture tourism, the theoretical framework of this study is a significant contribution to the existing body of knowledge.

The study also has substantial practical implications for enhancing Iraq's tourism industry for economic growth. The Iraqi economists should evaluate the agriculture tourism sector's contribution to economic growth. The study has examined the significant influence of tourist marketing on the farm sector's tourism promotion. In this regard, the Iraqi government could promote agro-tourism through worldwide marketing to lure foreigners to Iraqi farms. On the other hand, the government must design an adequate strategy for educating farmers, as only educated farmers can produce reasonable agricultural goods.

Similarly, the government should control farms in Iraq and

focus more on the proper development of agricultural lands to encourage tourism in the agriculture sector. Progress in the agricultural sector is crucial for developing and operating the tourism industry, and the Iraqi government should follow the agricultural tourism models of Thailand and Indonesia. The reasonable development of farmers and improved resources can enable farmers to produce agricultural land more quickly, which could attract international tourists. These consequences can enhance agricultural tourism in Iraq, bolstering the country's economy.

7. FUTURE RESEARCH DIRECTIONS

Without a doubt, the current research is based on the novel gap in the literature, as no prior research has explored this gap in the literature for research purposes. Notably, the findings of this study are an addition to the literature and the body of knowledge since they reveal that the factors of farmers' actions have a substantial impact on agricultural tourism in Iraq. The study also has significant practical implications for enhancing Iraq's tourism industry for economic growth. Indeed, this study has some methodological and conceptual limitations. This study collected cross-sectional data, appropriate for this investigation, but cross-sectional data is inappropriate for generalizing the study's conclusions.

Regarding this, additional research should be undertaken on the data gathered over a lengthy period. Similarly, this study utilized a Likert scale questionnaire because it was simple for respondents to complete. However, the interview-based questionnaire would be suitable for future research aimed at comprehending the subjective perspective of farmers on agriculture tourism. Furthermore, this study employs the significant mediating role of tourism marketing; however, future research may concentrate on the importance of word-of-mouth marketing in the tourism sector.

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