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EXPLORING THE DRIVERS OF ENTREPRENEURIAL INTENTIONS AMONG FARMERS IN TANZANIA'S AGRICULTURAL SECTOR

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ABSTRACT

Purpose: This paper investigates the entrepreneurial intentions of orange farmers in Muheza, Tanzania, by validating the extended theory of planned behaviour (TPB).

Design/Methodology/ Approach: The study used a quantitative method approach, with cluster and simple random sampling, to recruit 349 orange farmers. The survey was conducted on 349 small-scale orange farmers in Muheza. To test the model, the constructs of entrepreneurship training, farmers' attitudes, subjective norms, perceived behaviour control and entrepreneurial intention inputs were validated, followed by factor analysis and structural equation modelling.

Findings: The study's results revealed the crucial role of perceived behaviour control and attitudes in driving the entrepreneurial intention of orange farmers. This significant influence underscores the importance of these factors in the development of entrepreneurial intention among orange farmers. It was also found that attitudes and perceived behaviour control predicted the entrepreneurial intention of orange farmers but not subjective norms, providing valuable insights for future research and policy development.

Research Limitation: This study primarily focused on orange farmers in the Tanga Region, specifically in the Muheza District.

Practical Implication: The findings suggest a clear path for action. To foster and enhance the entrepreneurial intentions of orange farmers, the government and policymakers should concentrate on instilling positive attitudes and controlling perceived behaviour. By promoting a positive stance toward entrepreneurship, we can significantly boost the willingness of orange farmers to engage in commercial farming, thereby contributing to the growth and development of Tanzania's agricultural sector.

Social Implication: The study recommends policy options focusing on cultivating positive attitudes and perceived behaviour control among orange farmers to increase entrepreneurial intention, requiring concerted efforts from the government and policymakers.

Originality / Value/ Novelty: It contributes to the body of knowledge, addressing the gap regarding the drivers influencing orange farmers' entrepreneurial intentions. Furthermore, establishing validated drivers of entrepreneurial intention among Tanzanian orange farmers could significantly assist the government in promoting economic development and achieving its vision of becoming a semi-industrialized country.

***Keywords**: Drivers. entrepreneurial. farmers. intention. Tanzania*

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INTRODUCTION

The agricultural sector is a vital driver of the economy in many developing African countries, significantly aiding the fight against poverty among the rural poor (Engotoit et al., 2016). In Tanzania, for instance, the sector employs over 65% of the labour force (BOT, Annual Report 2016/17, 2018), contributes about 30% of export earnings, and its share of the Gross Domestic Product (GDP) rose to approximately 29.1% in 2016 (BOT, Consolidated Zonal Economic Performance Report for The Year Ending June 2016, 2017), despite its slow growth (Nade, 2017). Farmers are increasingly becoming entrepreneurial due to its significance, economic conditions, and supportive policies. Therefore, studying their willingness to innovate is essential for enhancing entrepreneurial intention. Entrepreneurial intention refers to the self-acknowledged conviction of individuals to establish or expand a business and consciously plan to do so in the future (Thompson, 2009). Understanding farmers' entrepreneurial intention is crucial for predicting entrepreneurial behaviour, which is the first step toward agricultural transformation. For agricultural change to occur in developing countries, including Tanzania, farmers should adopt new practices, attitudes and behaviours that will lead them to perform well (Opolot, Isubikalu, Obaa, & Ebonyat, 2018).

Elevating the agricultural sector from traditional to commercial practices requires developing entrepreneurial behaviour among farmers (Opolot et al., 2018). To achieve this, it is essential to identify the drivers of entrepreneurial intentions among smallholder farmers. According to Mitrovic Veljkovic, Maric, Subotic, Dudic, and Greguš (2019), entrepreneurial intention arises from multiple traits influenced by various factors. These factors, or drivers, can either promote or hinder entrepreneurial behaviour (Jokonya, 2017). Although research on the factors influencing entrepreneurial intention has become more prominent over the years (Ali & Abou, 2020), there remains a gap in understanding which specific factors enhance the entrepreneurial intentions of orange farmers in Muheza, Tanzania. The perception of entrepreneurial intention can vary among entrepreneurs due to differing contextual conditions. Without identifying what drives farmers' intentions, it is challenging to establish an effective entrepreneurial program to foster their entrepreneurial behaviour.

Previous empirical studies indicate that various factors influence entrepreneurial intention. For instance, Ridha and Wahyu (2017) found that only subjective norms affect entrepreneurial intention in Indonesia's agricultural sector, while attitudes toward behaviour and perceived behavioural control do not. Additionally, Mubarak, Jangkung, and Hartono (2019) discovered that entrepreneurial competence negatively impacts entrepreneurial intentions, whereas subjective norms and entrepreneurial characteristics positively influence farmers' entrepreneurial intentions in Malaysia and Indonesia. Another study by Borges, Lansink, Sarkar, et al. (2022) applied the Theory of Planned Behavior to understand farmers' intentions to adopt improved natural grassland in Bangladesh. Their results showed that sufficient knowledge, skills, and the availability of technical assistance from entrepreneurship training are crucial drivers of entrepreneurial intention among Bangladesh farmers.

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Collectively, these studies have identified various drivers of entrepreneurial intention but have yielded mixed and inconclusive results. The current study examines the drivers of small-scale orange farmers' entrepreneurial intention in Muheza, Tanzania, using the extended Theory of Planned Behavior (TPB) proposed by Ebewo, Rugimbana, and Shambare (2017). This theory is based on the idea that certain factors motivate individuals' entrepreneurial behaviour. Variables from the extended TPB model were used to formulate the objectives and hypotheses for this study.

Although the phenomenon of entrepreneurial intention has been extensively researched, some scholars argue that there is still much to explore, particularly in developing countries (Adeyonu, Balogun, & Obaniyi, 2019). In Tanzania's agricultural sector, many issues surrounding farm entrepreneurship remain unresolved. This study aims to identify the drivers of orange farmers' entrepreneurial intention. It contributes to the body of knowledge, addressing the gap regarding the drivers influencing orange farmers' entrepreneurial intentions. Furthermore, establishing validated drivers of entrepreneurial intention among Tanzanian orange farmers could significantly assist the government in promoting economic development and achieving its vision of becoming a semi-industrialized country. This study primarily aimed to investigate the key factors influencing the entrepreneurial intentions of farmers within Tanzania's agricultural sector. Specifically, the study aims to assess how entrepreneurship training affects entrepreneurial intentions, investigate the connection between attitudes and entrepreneurial intentions, evaluate the relationship between subjective norms and entrepreneurial intention, and analyse the effect of perceived behavioural control on the entrepreneurial intentions of orange farmers in Muheza, Tanzania.

THEORETICAL FRAMEWORK

The extended Theory of Planned Behavior (TPB)

Drawing from the perspectives outlined above, our study adopts the extended TPB model proposed by Ebewo, Rugimbana, and Shambare (2017), initially tested on students in Botswana to predict small-scale orange farmers' entrepreneurial intention. As evidenced by Ebewo, Rugimbana, and Shambare (2017), this model expands upon established factors like attitudes, subjective norms, and perceived behaviour control, incorporating entrepreneurial training as a crucial exogenous variable influencing entrepreneurial inclination. As per Linan and Chen (2009), entrepreneurial intention involves multifaceted aspects beyond cognitive factors alone.

Theoretical Framework

The initial conceptual framework depicted in Figure 1 offers a graphical representation of the relationships examined in this paper. Using the extended TPB model, we aim to identify the factors influencing entrepreneurial intention among orange farmers in the Tanzanian agricultural sector. This model operates under the premise that learning acquired through

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entrepreneurship training significantly enhances the entrepreneurial intention of orange farmers. Additionally, we anticipate that attitudes, subjective norms, and perceived behavioural control also influence entrepreneurial intention.

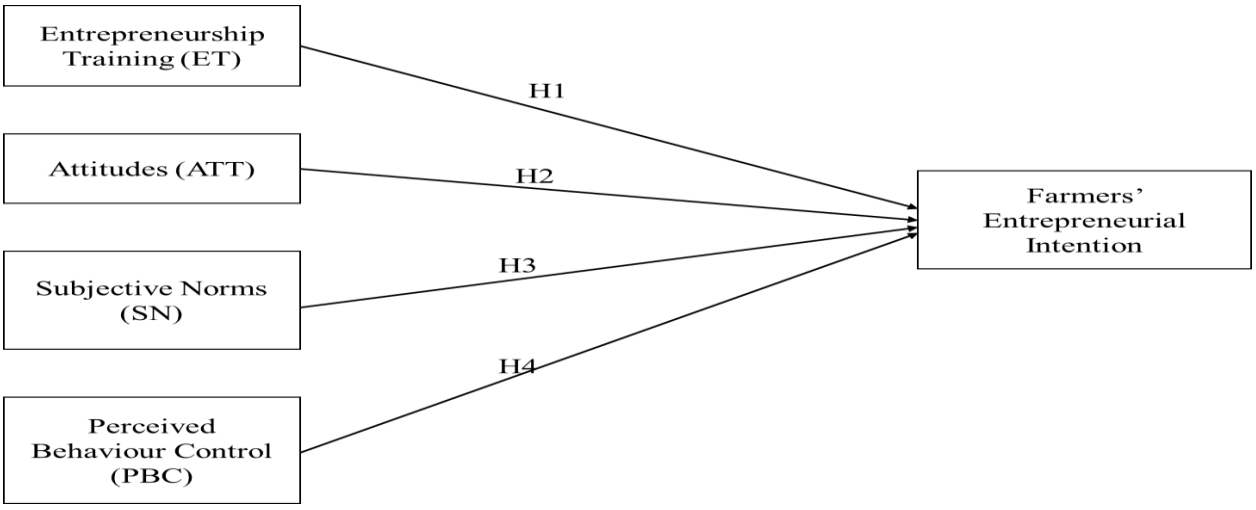

Figure 1: The Extended Theory of Planned Behavior (Ebewo et al., 2017, p.281)

Entrepreneurial Intention of Farmers

In agricultural research, various factors influence farmers' entrepreneurial intentions. For instance, Bergevoet et al. (2004) evaluated an entrepreneurship training program for Dutch dairy farmers, finding a positive correlation between training and entrepreneurial intention. They concluded that enhancing opportunity and strategic skills boosts entrepreneurial intention and performance. Conversely, Yaseen et al. (2018) investigated entrepreneurial behaviour among Pakistani dairy farmers using Partial Least Square Structural Equation Modelling (PLS-SEM). Their study revealed that although entrepreneurship training positively impacts milk producers' entrepreneurial intention, the effect is insignificant. This highlights the complexity of factors influencing entrepreneurial behaviour in agriculture.

In examining factors shaping rural entrepreneurship in West Islamabad County, Pakistan, Taghibeygi et al. (2015) found a notable positive link between attending entrepreneurship courses and farmers' willingness to engage in entrepreneurship. They emphasised the significance of individual, socio-cultural, economic, and regulatory factors in fostering entrepreneurial intention. However, their study's scope was limited to a single county and period, warranting further research with a diverse population to deepen understanding farmers' entrepreneurial intentions.

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Moreover, Hussain (2012) investigated factors motivating small farmers in Malaysia to engage in agricultural activities. His study, employing multiple regression analysis, revealed that entrepreneurship training positively impacts small-scale farmers' entrepreneurial intention. Training in marketing, management, finance, cultivation, and networking emerged as crucial factors fostering participation in agribusiness.

Boukamcha (2015) investigated the influence of training on entrepreneurial intention in Tunisia, surveying 240 trainees. They employed maximum-likelihood testing as an SEM method to test their model. The study found that training positively impacts entrepreneurial intention by enhancing desirability. However, it did not explore aspects like performance or behaviour, suggesting future research to address this gap. Additionally, the study's use of convenience sampling introduces potential bias. Hence, the current study aims to address these limitations.

Barzola Iza and Dentoni (2020) surveyed How entrepreneurial orientation drives farmers' innovation differential in Ugandan coffee multi-stakeholder platforms. They sampled 152 coffee farmers using simple random sampling and employed confirmatory analysis and partial least square multivariate statistics for analysis. The study found that entrepreneurship training did not influence the entrepreneurial intention of coffee growers in the area.

In Tanzania, Nade (2017) investigated agricultural education's impact on youth farm entrepreneurial intention. Using a cross-sectional design with 300 respondents, qualitative and quantitative data were analysed using descriptive and inferential statistics. The results revealed a significant relationship between agricultural knowledge and skills acquired during training and youth entrepreneurial intention among students at folk development colleges in Tanzania.

Entrepreneurship Training and Entrepreneurial Intention

Entrepreneurship training prepares individuals for economic growth (Fayolle & Liñán, 2013). Practical training should prioritise developing individuals' entrepreneurial intention (Loi et al., 2017), which is crucial for farmers' performance. While many studies confirm the relationship between entrepreneurship training and entrepreneurial intention (Heenkenda & Chandrakumar, 2016; Lazim, 2015; Taghibeygi et al., 2015), findings vary. Some studies report a positive influence, others negative (Zampetakis et al., 2014; Oosterbeek et al., 2010), while some find no influence (Solomon, 2004; Zampetakis et al., 2014). This inconsistency among scholars underscores the need for further empirical evidence (Adeyonu et al., 2019). Based on these findings, the following hypothesis is proposed:

H_1: *Entrepreneurship training significantly boosts the entrepreneurial intention of orange farmers in Muheza, Tanzania.*

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Attitudes and Entrepreneurial Intention

The concept of attitude has been incorporated into various disciplines to elucidate behaviour (Bergevoet et al., 2004). Attitude refers to a predisposition or inclination to respond in a particular manner (Fishbein & Ajzen, 2010). In the entrepreneurial context, it denotes individuals' perception of the desirability of engaging in entrepreneurial activities (Tshikovhi & Shambare, 2015). Attitudes are essential for effectively applying skills (Fayolle & Gailly, 2008) and are subject to change, implying implications for entrepreneurship training and adaptation. Trainers and practitioners may influence entrepreneurial attitudes (Robinson et al., 1991).

Attitudes play a crucial role in shaping intention by motivating individuals to engage in specific behaviours. Various studies, such as those by Kum Lung and Siat Ching (2013), Fishbein & Ajzen (2010), and Yaqub et al. (2015), have explored the impact of attitudes on entrepreneurial intention. Kum Lung and Siat Ching (2013) found a positive relationship between entrepreneurial attitude and intention among SMEs in Malaysia. Fishbein and Ajzen (2010) highlighted attitudes as key drivers of entrepreneurial intention. Similarly, Yaqub et al. (2015) demonstrated a strong correlation between attitudes towards entrepreneurship and entrepreneurial intention. However, contrary findings by Ridha and Wahyu (2017) and Mohammed, Fethi, and Djaoued (2017) suggest that attitude does not affect entrepreneurial intentions in the agribusiness sector. Based on these studies, it is hypothesised that:

H2: Attitudes positively and significantly influence the entrepreneurial intention of orange farmers in Muheza, Tanzania.

Subjective Norms and Entrepreneurial Intention

According to Ajzen's Theory of Planned Behavior (TPB), engaging in entrepreneurial behaviour requires effort, influenced by various factors (Fayolle & Gailly, 2015). Societal factors, culture, traditions, and social settings can impact farmers' willingness to utilise entrepreneurial skills gained through training. Studies (Ephrem et al., 2021; Arisandi, 2016; Robledo et al., 2015; Ridha & Wahyu, 2017) have highlighted the significance of social influences on entrepreneurial intention and exceptionally subjective norms. Social pressure plays a crucial role in individuals' decision-making processes. Shiri et al. (2012) found that subjective norms significantly influence the entrepreneurial intentions of students with agricultural education backgrounds. Similarly, Arisandi (2016) observed that subjective norms influence the entrepreneurial intentions of Bogor Agricultural University graduate students in Indonesia's agricultural sector. These findings underscore the strong influence of subjective norms, particularly among individuals with agricultural education backgrounds.

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In contrast to Robledo et al. (2015), Ridha and Wahyu (2017) found that subjective norms do not impact entrepreneurial intentions. However, Díaz-Casero et al. (2012) discovered in Spain that culture and subjective norms significantly influence entrepreneurial capacity, motivating individuals to acquire entrepreneurial knowledge and skills. Mwasalwiba (2010) found that perceptions of social values insignificantly predict intentions in Tanzania, suggesting minimal influence from close relatives and friends. These conflicting findings warrant further investigation. Thus, based on these predictions, it is hypothesised that.

H3: Subjective norms positively and significantly related to the entrepreneurial intention of orange farmers in Muheza, Tanzania.

Perceived Behaviour Control and Entrepreneurial Intention

Perceived Behavioral Control (PBC) refers to individuals' perception of the ease or difficulty of initiating and performing business tasks (Ajzen, 2015; Krueger et al., 2018; Mohammed et al., 2017). It reflects one's confidence in successfully executing a specific task. Numerous studies have investigated how PBC influences individuals' intentions (Ajzen, 2015). Those who believe that essential references expect them to engage in a behaviour and are motivated to meet these expectations tend to hold positive subjective norms (Fishbein & Ajzen, 2010). Authors such as Iqbal, Melhem, and Kokash (2013), Pacho, 2023, Ridha and Wahyu (2017), and Mohammed, Fethi, and Djaoued (2017) have explored the impact of PBC on entrepreneurial intention. Iqbal et al. (2013) found in a study on university students in Saudi Arabia that PBC significantly correlates with entrepreneurial intention, supporting its influential role.

In his study, "Entrepreneurship Education in Tanzanian Universities," Mwasalwiba (2010) examined changes in students' entrepreneurial intentions using a pre and post-test method. Four hundred thirty-three university students were randomly selected in Tanzania. Regression analysis revealed that positive changes influenced students' intentions in their personal attitudes and entrepreneurial behavioural control. Conversely, scholars like Ridha and Wahyu (2017) and Mohammed, Fethi, and Djaoued (2017) found no significant relationship between perceived behavioural control and entrepreneurial intention. Despite this, past studies have empirically demonstrated the influence of perceived behaviour on entrepreneurship. Therefore, it is hypothesised that:

H4: Perceived behaviour control is positively and significantly related to the entrepreneurial intention of orange farmers in Muheza, Tanzania.

METHODOLOGY

Research Area

The research was conducted in Muheza District, located in the Tanga region of Tanzania. This region was chosen due to its significant role as a major orange producer in Tanzania, with over

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80% of all oranges cultivated in Muheza District (Mhando & Ikeno, 2018). Tanga spans an area of 1,974 km2 and has a population of 204,461 people, divided into four divisions, 37 wards, and 135 villages. The district experiences two rainfall seasons annually, with an average rainfall ranging from 1,100 to 1,400 mm. Adequate rainfall is crucial for the success of the agricultural sector, which serves as the backbone of the economy and sustains the livelihoods of many residents (Mhando & Ikeno, 2018). This study utilised an explanatory survey design and a quantitative research strategy. Quantitative research uses various statistical techniques to examine numerical relationships between variables (Limone et al., 2022; Creswell, 2014; Bryman & Bell, 2015).

Sampling and sample size

The villages for data collection were chosen using cluster sampling. Initially, two out of four divisions were selected, followed by six out of 11 wards within these divisions. Finally, 28 villages were purposefully chosen based on their geographic distribution. Three hundred forty-nine (349) orange farmers were randomly selected from these villages to participate in the study.

Data collection process

Data collection was conducted using a questionnaire comprising Likert-scale items ranging from "1= strongly disagree" to "7 = strongly agree" for four constructs: Attitudes towards entrepreneurship, Subjective norms, Perceived behaviour control, and Entrepreneurial Intention (Linan & Chen, 2009, p. 594). Items for Entrepreneurship training were adapted from (Rudman & Phelan, 2010) using the same 7-point scale. Both English versions of (Linan & Chen, 2009) and (Rudman and Phelan, 2010) were translated into Swahili, the commonly spoken language in Tanzania, by two independent professional translators to ensure translation equivalence.

The questionnaire was piloted with 16 small-scale orange farmers in Michungwani ward, Handeni District, Tanga region, aligning with recommendations from scholars (Hill, 1998; van Belle, 2002; Johanson & Brooks, 2010) for pilot sample sizes of 10 – 30. Exploratory Factor Analysis in the pilot study ensured construct validity and questionnaire reliability. Cronbach's Alpha values for constructs (entrepreneurship training: 0.710, attitudes toward entrepreneurship: 0.729, social norms: 0.827, perceived behaviour control: 0.813, entrepreneurial behaviour intention: 0.904) were all acceptable (>0.05). Adjustments were made to enhance the reliability of entrepreneurial intention items before actual data collection.

Data Analysis

The questionnaire data underwent Structural Equation Modeling (SEM) analysis using AMOS, with preliminary tests conducted to verify assumptions. Before analysis, the dataset was examined for missing values, outliers, normality, multicollinearity, and homoscedasticity. Ten sets with missing data, representing 2% of the dataset, were removed using listwise deletion,

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given their minimal impact on results. Additionally, 33 outliers were identified and excluded based on Mahalanobis distance values, reducing the sample size of 282 responses. Normality was assessed using skewness and kurtosis coefficients, which fell within acceptable ranges (+/- 2 values) as recommended by Civelek (2018). Following data cleanliness confirmation, the model was constructed, and factors were evaluated through factor analysis, with satisfactory factor loadings observed for survey items, as presented in Table 2.

FINDINGS AND DISCUSSION

The demographic profile

Table 1 presents the demographic profile of respondents, covering gender, age, education, and farming experience. The survey revealed a male dominance, with 71.4% male and 28.6% female respondents. Although both genders work in agriculture, cultural and traditional factors limit female participation. Research suggests that gender stereotypes and self-imposed barriers reduce women's entrepreneurial intentions (Marlow & Patton, 2005; Lorz, 2011; Langowitz & Minniti, 2007).

Regarding age, most respondents (29.8%) were between 36 and 45 years old. 76.3% had only primary education, reflecting the agricultural sector's appeal to those with lower education levels. The most common range of farming experience was 6-10 years (35.4%), indicating that extensive experience in orange farming may contribute to resistance to adopting new entrepreneurial skills and knowledge.

Table 1: Summary of Characteristics of the Survey Respondents

Variables	(n)	(%)
Gender		
Male	198	70.2
Female	84	29.8
Age		
Under 18 years	4	1.1
Between 18-35 years	84	29.9
Between 36-45 years	84	29.9
Between 46-60 years	74	26.2
Above 60 years	36	12.9
Education		
Undergraduate	4	1.1
Secondary education	34	12.1
Primary education	221	78.4
No formal education	15	5.3
No answer	8	2.8
Orange farming experience		

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Between 1-5 years	56	19.9
Between 6-10 years	104	36.9
Between 11-15 years	48	17.0
Between 16-20 years	42	14.9
More than 20 years	32	11.3

Model Development and Exploratory Factor Analysis

Table 2 presents the initial factor loadings for all variables. Items loadings below 0.5 were removed, adhering to the recommended threshold (Hair, Money, Samoul, Page, & Celsi, 2016). Only loadings above 0.5 were considered. The analysis showed a high Keiser-Meyer-Olkin (KMO) measure of sampling adequacy (0.905) and a highly significant Barlett's test of sphericity ($p<0.000$), indicating that factor analysis is appropriate. The cumulative variance explained was 72.474%, demonstrating satisfactory results.

Table 1: Factor Loadings of the survey items

Item	1	2	3	4	5
ET1	0.781				
ET2	0.806				
ET3	0.763				
ATT1		0.649			
ATT2		0.817			
ATT3		0.803			
SN2			0.895		
SN3			0.890		
SN5			0.614		
PBC2				0.803	
PBC3				0.773	
PBC6				0.775	
PBC7				0.830	
EI1					0.819
EI2					0.857
EI3					0.894
Eigen Values	5.360	2.066	1.817	1.409	0.994
Variance Explained	33.502	12.912	11.356	8.804	5.900
Total Variance			72.474		
Reliability of factors	0.710	0.729	0.827	0.813	0.904
Reliability of the survey			0.851		

To assess discriminant validity, the constructs' Average Variance Extracted (AVE) was compared to the square of the correlations between them. According to Hair, Money, Samoul, Page, and Celsi (2016), AVE values should exceed the squared correlation estimates, and the correlations between constructs should be less than 1. Discriminant validity was evaluated using

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two methods: 1) the square root of AVE and 2) the loadings and cross-loadings matrix. Table 3 shows that all calculated square roots of AVE values exceeded the 0.7 threshold (Hair et al., 2016; Civelek, 2018), confirming discriminant validity. These results verify that the items accurately measure their intended constructs.

Table 2: Results of the Study's Factor Loadings, Validity and Reliability (N-282)

Construct	Indicator	Loadings	Composite Reliability (CR)	Cronbach alpha α	Convergent Validity (AVE)	Discriminant Validity Factor loadings $\sqrt{CR}$	Error variance 1-CR
ET	Et1	0.781					
	Et2	0.806					
	Et3	0.783	0.838	0.710	0.641	0.915	0.162
ATT	Att1	0.649					
	Att2	0.817					
	Att3	0.809	0.808	0.729	0.578	0.898	0.192
SN	Sn2	0.895					
	Sn3	0.890					
	Sn5	0.614	0.884	0.827	0.761	0.940	0.116
PBC	Pbc2	0.803					
	Pbc3	0.773					
	Pbc6	0.775	0.839	0.813	0.639	0.915	0.161
	Pbc7	0.830					
EI	EI1	0.819					
	EI2	0.857	0.811	0.904	0.501	0.900	0.189
	EI3	0.894					

Testing through Structural Equation Modelling (SEM)

The model, developed based on existing literature, was tested using SEM with SPSS V. 25. Figure 1 displays the model's standardised path coefficients. The results indicate that the most significant drivers of ICT usage in marketing agricultural products among orange farmers in Muheza are social influence, facilitating conditions, and effort expectancy. However, Performance expectancy was not a significant determinant for small-scale orange farmers in this study.

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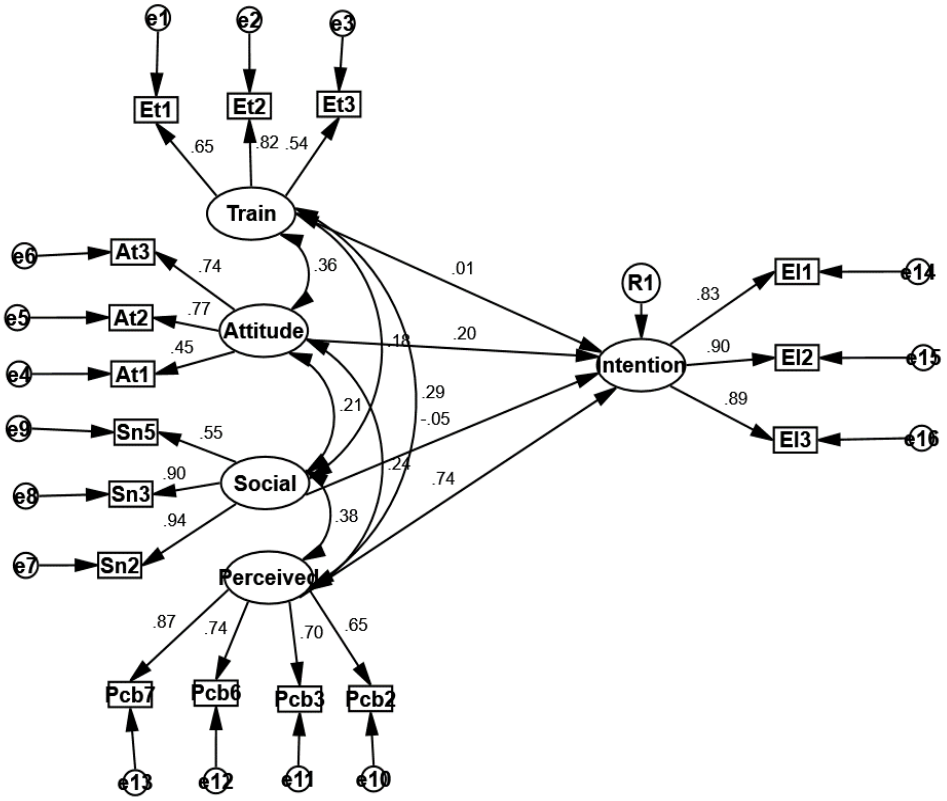

Figure 2: The model results

The model's goodness of fit was evaluated using the criteria Civelek (2018) recommended, including Chi-square, RMSEA, and two incremental fit indices. The Comparative Fit Index (CFI) and Goodness of Fit Index (GFI) supported the model fit indicated by absolute fit indices. The Tucker-Lewis Index (TLI) also confirmed the model fit, being resilient to sample size variations. The chi-square value was $\chi 2 = 587.258$ ($df = 222$, $p < .05$), which is significant but sensitive to large sample sizes. Despite this, the model demonstrated an acceptable and perfect fit according to its indices, as detailed in Table 4. The index ranges were based on Civelek (2018).

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Table 3: The Fit Statistics and the Values of the Model

GoF index	Perfect	Acceptable	Values in the model	Results
Cmin/Df	≤ 2	≤ 3	1.691	Perfect
GFI	≥ .95	≥ .90	.904	Acceptable
TLI	≥ .95	≥ .90	.922	Acceptable
CFI	≥ .97	≥ .95	.954	Acceptable
RAMSEA	≤ .05	≤ .08	.053	Perfect

Hypothesis Testing

This study used standardised path coefficients, critical values (C.R), and significance levels (p) to test and evaluate the strength and significance of the hypotheses (Hair et al., 2016; Hayes & Preacher, 2014), as shown in Table 5. Hoe (2008) and Sarstedt, Ringle, and Hair (2021) suggested that a standardised path coefficient (γ) should be at least 0.2 to be considered significant and meaningful. Hox and Bechger (2012) also indicated that a relationship is significant if the critical ratio exceeds 1.96 and the p-value is less than 0.05.

Table 4: The Relationships Between the Constructs in the Model

Hypothesis	Relationship			Estimate	S. E	C.R	p	Standardised Estimates	Results
1	EI	<---	ET	.003	.022	.141	.888	.010	Partially supported
2	EI	<---	ATT	.125	.041	3.084	.002	.202	Supported
3	EI	<---	SN	-.030	.030	-1.015	.310	-.053	Not Supported
4	EI	<---	PBC	1.305	.145	8.986	***	.741	Supported

Hypothesis one predicted a positive significant relationship between entrepreneurship training and the entrepreneurial intention of small-scale orange farmers in Muheza, Tanzania. The results show a weak positive path coefficient (γ = .010), critical values (C.R = .141 < 1.96), and a significance level of p = .888 > 0.05. Therefore, hypothesis one is only partially supported; the path is positive but not significant. This indicates that entrepreneurship training has a minimal positive influence on the entrepreneurial intentions of orange farmers. Thus, it is a weak determinant. These findings align with other research (Marques et al., 2012; Rodrigues et al., 2012), which found a positive but insignificant influence of entrepreneurship training on entrepreneurial intention in the agricultural sector. Conversely, Oosterbeek, Van Praag, and Ijsselstein (2010) found a negative influence. These results prompt further reflection among researchers, policymakers, and the government.

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In hypothesis two, we predicted a positive and significant relationship between attitudes toward entrepreneurship and the entrepreneurial intention of small-scale orange farmers in Muheza, Tanzania. The results show a direct positive path coefficient ($\gamma = .202$) with critical values (C.R = 3.084 > 1.96) and a significance level of $p \leq 0.05$. Hypothesis two is supported, indicating that attitudes toward entrepreneurship strongly influence orange farmers' entrepreneurial intention. These findings align with previous research (Nade, 2017; Marques et al., 2012), which also found a positive and significant relationship between attitudes toward entrepreneurship and entrepreneurial intention.

In hypothesis three, we predicted a positive and significant relationship between social norms and the entrepreneurial intention of small-scale orange farmers in Muheza, Tanzania. However, the results show a negative path coefficient ($\gamma = -.053$) with critical values (C.R = -1.015 < 1.96) and a significance level of $p = .310 > 0.05$. Hypothesis three is not supported; social norms do not significantly influence entrepreneurial intention. This finding is consistent with research by Mwasalwiba (2010) and Marques et al. (2012), suggesting that support from family, friends, and others does not significantly shape entrepreneurial intentions. Lack of entrepreneurial role models and support from family and friends may contribute to this trend (Mitrovic Veljkovic et al., 2019; Olszewska, 2015).

Hypothesis four posited a positive and significant relationship between perceived behaviour control (PBC) and the entrepreneurial intention of small-scale orange farmers in Muheza, Tanzania. The results indicate a direct positive path coefficient ($\gamma = .224$) with critical values (C.R = 2.198 > 1.96) and a significance level of $p \leq 0.05$, supporting hypothesis four. These findings align with previous studies (Dinc & Budic, 2016; Marques et al., 2012), highlighting the significant influence of PBC on entrepreneurial intentions. The results suggest that orange farmers perceive their ability to control their entrepreneurial intentions based on past experiences and anticipated obstacles.

CONCLUSION

The drivers of entrepreneurial intention among small-scale orange farmers in Tanzanian agriculture include perceived behaviour control, attitudes toward entrepreneurship, and, partially, entrepreneurship training. Despite data being limited to a few villages, it is evident that perceived behaviour control and attitudes significantly influence orange farmers' entrepreneurial intention, while social norms do not. Implications based on these findings include:

- Enhancing perceived behaviour control through capacity-building programs to boost entrepreneurial intention among farmers, thereby improving their uptake of agricultural entrepreneurship.

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- Shaping attitudes toward entrepreneurship through training programs to strengthen farmers' entrepreneurial intentions and facilitate the successful growth of their farming businesses.
- Providing technical facilities and support in rural areas to improve the effectiveness of entrepreneurship training and ensure farmers have the resources needed for uptake.
- Focusing on cultivating positive attitudes and perceived behaviour control among orange farmers to increase entrepreneurial intention, requiring concerted efforts from the government and policymakers.

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