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Influence of Entrepreneurs' Personality Traits on Business Success in Ghana's Agri-Food MSEs Using Attribution Theory

By: Alfred Asuming Boakye[1], Isaac Baidoo[2], Daniel Adu Ankrah[3], Nana Kofi Safo[4], Andrew Agyei-Holmes[5], Yaw Osei-Asare[6] and Daniel Bruce Sarpong[7]

Abstract

This study explores the often-overlooked role of psychological traits in determining business success among entrepreneurs. Drawing on data from 159 Agri-food Micro and Small Enterprises (MSEs) in Ghana, it examines how locus of control, self-efficacy, and motivation influence both subjective and objective success indicators. Findings show that internal traits—such as resilience, competence, and intrinsic motivation—positively predict business success, while external attributions like luck or dependence on powerful others correlate negatively. Despite the sector's economic importance, most firms report only moderate success, with many entrepreneurs lacking confidence in strategic planning and uncertainty management. Using ordered logistic regression and factor analysis, the study confirms that psychological disposition is a central determinant of success. It recommends integrating psychological development into entrepreneurship support programs, alongside financial and infrastructural aid, emphasizing that the entrepreneur's mindset is a foundational asset for sustainable growth in Ghana's informal Agri-food sector.

Key Words: *Entrepreneurship, Personality Traits, Business Success, Agri-Food Processing, and Micro and Small Enterprises (MSEs)*

Introduction

The informal agribusiness sector is vital to Ghana's economy, driven by smallholder farming that blends traditional practices with agribusiness activities like processing (Osei & Agyeman, 2020). Despite its role in employment and income generation (Asuming Boakye et al., 2024), many informal agribusinesses fail within their first few years, reflecting global trends (Gano & Buccat, 2024; Shinozaki & Rao, 2021; Gebremedhin, 2020; Endris & Kassegn, 2022). Contributing factors include limited access to finance, poor infrastructure, high input costs, regulatory burdens, and market competition. Proposed solutions include improving financing, infrastructure, and market diversification (Gano & Buccat, 2024; Shinozaki & Rao, 2021), as well as adopting innovative technologies and forming marketing cooperatives (Gebremedhin, 2020).

[1] *Forest and Horticultural Crops Research Centre, University of Ghana, School of Agriculture, University of Ghana, aasumingboakye@ug.edu.gh*
[2] *Biotechnology and Nuclear Agriculture Research Institute (BNARI) Ghana Atomic Energy Commission (GAEC), P.O. Box LG 80, Kwabenya, Accra, Ghana. baidus@yahoo.com*
[3] *Department of Agricultural Extension, University of Ghana, Legon. University of Ghana, School of Agriculture, University of Ghana*
[4] *Science and Technology Policy Research Institute (STEPRI) of CSIR, Ghana*
[5] *Institute of Statistical, Social and Economic Research (ISSER), University of Ghana*
[6] *Department of Agricultural Economics and Agribusiness, University of Ghana, Legon, University of Ghana, School of Agriculture, University of Ghana*
[7] *Corresponding author: FOHCREC, School of Agriculture, University of Ghana, aasumingboakye@ug.edu.gh*

While research has focused on external factors affecting business success (Boakye et al., 2018), little attention has been given to intrinsic factors like entrepreneurs' personality traits, especially in Ghana. For example, Boakye et al. (2018) did not explore how these traits influence performance and success. Understanding psychological traits is essential for improving decision-making, risk management, and business outcomes. Since successful MSEs drive job creation and innovation, addressing psychological factors can help reduce failure rates and enhance longevity. Few studies link business success to entrepreneurs' personality traits, particularly in the Ghanaian context.

Objectives

This study specifically focuses on assessing the influence of self-efficacy; locus of control; and motivation (which are all part of the business owner's personality traits from the psychology literature) on the business success of informal agri-food processing firms in Ghana.

Literature Review and Hypothesis Development

Business success in small enterprises is traditionally assessed through indicators such as survival, profit, return on investment (ROI), sales growth, workforce expansion, and reputation (Nkone et al., 2024). Recent literature has broadened this framework to include key performance indicators (KPIs) such as innovation, adaptability, and sustainability (Van de Ven et al., 2023), as well as market-based metrics like customer satisfaction and market share (Casbay, 2023).

Drawing from the psychology literature, this study employs entrepreneurial personality traits—specifically locus of control, self-efficacy, and motivation—as the conceptual framework for analysing business success (Kerr, Kerr, & Xu, 2017; Lacruz, 2021; Rauch & Frese, 2000; Weinman et al., 2000). These traits are examined through the lens of causal attribution theory, which posits that individuals interpret outcomes based on internal or external factors.

Locus of control refers to the extent to which entrepreneurs believe they can influence outcomes through their own actions. Those with an internal locus of control tend to exhibit proactive behaviour and are better equipped to navigate uncertainty, thereby enhancing business performance (Rauch & Frese, 2007; Kerr et al., 2017). Conversely, entrepreneurs with an external locus of control attribute success to luck or external circumstances, which may undermine growth and sustainability (Mueller & Thomas, 2000; Kibia & Sikalieh, 2010; Hamzah & Othman, 2023). Accordingly, the first hypothesis

suggests that locus of control significantly influences subjective business success but not objective success. Self-efficacy, defined as the belief in one's ability to accomplish specific tasks, is another key trait explored in this study. Entrepreneurs with high self-efficacy are more resilient, embrace challenges, and demonstrate improved performance and sustained growth (Pattanayak & Kakati, 2023). The second hypothesis asserts a positive and significant relationship between self-efficacy and business success. Motivation, particularly intrinsic motivation, is the third trait utilised in this study. It reflects an entrepreneur's internal drive to pursue goals aligned with personal values and interests. Literature suggests that intrinsic motivation fosters innovation, adaptability, and long-term sustainability (Collura & Applegate, 2000; Mantere et al., 2013; Gielnik et al., 2020; Deci & Ryan, 2017). The third hypothesis proposes that motivation is positively and significantly related to business success.

Research Methodology

Research Approach

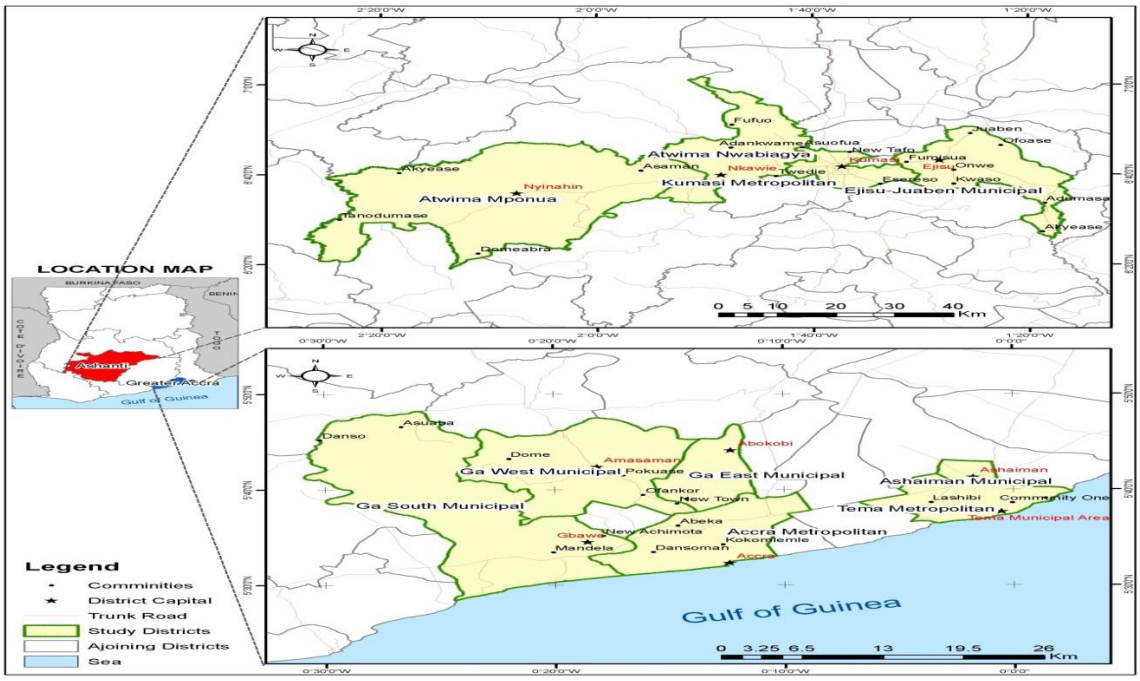
This research adopted a quantitative methodology to explore the relationship between entrepreneurial personality traits and the success of micro and small enterprises (MSEs) operating within Ghana's agri-food processing industry. Data were collected through a structured questionnaire administered to 159 firms located in the Greater Accra and Ashanti regions, incorporating both cross-sectional and panel data to enhance the robustness of the analysis.

Study area

Data for this study were obtained from two economically significant regions in Ghana: Greater Accra and Ashanti. These regions collectively account for a substantial portion of the country's economic activity and host a high concentration of micro and small enterprises engaged in agri-food processing (GSS, 2021).The Greater Accra Region, which includes Ghana's political and commercial capital, Accra, is the smallest by land area—covering 3,245 km² or approximately 1.4% of the national territory. According to the 2021 Population and Housing Census, the region has a population of 5,055,883. The firms sampled from this region were located in districts such as Accra Metropolis, Ashaiman, Ga West, Ga East, Ga South, and Tema. The region's economy is predominantly driven by the informal private sector, although formal enterprises also play a significant role. The Ashanti Region, situated in central Ghana, is anchored by Kumasi, the country's second-largest commercial

hub. It is the most populous region, with a population of about 5,432,485 as reported in the 2021 census. While agriculture—particularly crop and livestock production—is the dominant economic activity across most districts, commerce is the primary driver in the Kumasi Metropolis. A large proportion of the working population is self-employed, primarily within the informal sector, participating in both agricultural and non-agricultural ventures. Agri-food processing is a key activity in this region as well. The sampled districts included Kumasi Metro, Ejisu-Juaben, Atwima Nwabiagya, and Atwima Kwanyoma (GSS, 2021).

Figure 1: Map of study area



Source: CERSGIS, University of Ghana

Sample Size

The Slovin's sample size formula was used to estimate the sample size . The formula is given by:

$$n = \frac{N}{1 + N(e)^2} \text{ ----------(1)}$$

Where n is the sample size, N is the population size, and e is the percentage error margin (0.05). With a population size of 264agri-food processing firms obtained from the Department of Agriculture

and the offices of the Ghana Enterprises Agency (GEA) in the selected regions, a sample size of 159 firms was interviewed and used for data analysis.

Business Success and Attribution Based on Entrepreneur Personality Traits

Measuring Subjective Business Success

Subjective business success was evaluated using a combination of 17 questions that utilized Likert-scale (1 = very dissatisfied, 5 = very satisfied) in capturing entrepreneurs' satisfaction with how well their businesses met initial goals. Only firms that had operated fully in the last four years were included. The mean satisfaction score per respondent was rescaled to a 0–1 range, providing a standardized metric for analysis.

Measuring Objective Business Success

Objective business success was assessed using three quantifiable indicators:

Sales Volume Turnover per Employee (EST):

EST quantifies labor efficiency as the average annual sales per employee over three years (beginning to end of 2022 – beginning to end of 2024).

$$EST \frac{Total sales/ year}{Number of employees/ year} \quad \text{----------(2)}$$

The mean EST was rescaled to 0-1

Growth in Sales Volume (SG):

G_iS is the mean percentage change in sales volume over 2022–2024.

$$GiS \frac{Sales_{current year} - Sales_{previous year}}{Sales_{previous year}} \text{----------(3)}$$

Employee Turnover (ET):

ET is the percentage of employees leaving each year (2021–2024), reverse-scored so lower turnover yields higher business success.

$$ET_{ryear} = \frac{Number of employees who left the firm during a particular year}{Number of employees at the start of that particular year} \text{----------(4)}$$

Applying reverse-scoring = 1-$ET_{average}$

$$\text{Reverse-Score } ET = 1 - \left(\frac{ET_{2022} + ET_{2023} + ET_{2024}}{3} \right) \text{----------(5)}$$

$$BSUCC_i = \sum (EST_i, GiS_i, ET_i) / N \text{----------(6)}$$

where $BSUCC_i$ represents the *ith* entrepreneur's objective business success; EST **represents sales turnover generated per employee in the firm of the *i-th* entrepreneur**, GiS is the sales growth of the *ith* entrepreneur's firm, *ET* represents the employee turnover for the *ith e*ntrepreneur's firm and *N* represents the number of indicators under consideration *(N= 3).*All indicators were measured using percentage changes.

Levels of Business Success

Table 1**: Levels of business success**

Mean score	**Level of business success**
Less than 0.33 *(BS_i<0.33)*	Low business success
0.33 to 0.66 *($0.33 \leq BS_i<0.66$)*	Moderate business success
0.67 to 1.00 *($0.66 \leq BS_i<1.00$)*	High business success

Source: authors' estimations

Entrepreneur's personality traits as attribution to business success

Dimensions that measure the personality traits of the entrepreneur concerning business success used in this study include locus of control, self-efficacy, and motivation. Different sets of statements measuring the three dimensions were posed to entrepreneurs. Using a 5-point Likert scale (1 = *strongly disagree, 2 = disagree, 3 =neutral, 4 = agree* and 5= *strongly agree*), entrepreneurs graded the levels of importance of each statement under each dimension. Fifteen statements measured locus of control; seventeen measured self-efficacy; and sixteen statements measured motivation.

Factor Analysis

Factor analysis was used for data reduction and to identify underlying dimensions. The model structure:

Empirical framework

In obtaining a model for factor analysis, the following structure is observed (Jobson, 2012)

$$X_1 - \varphi_1 = \alpha_{11}Y_1 + \alpha_{12}Y_2 + \cdots \alpha_{1n}Y_n + \varepsilon_1$$

$$X_2 - \varphi_1 = \alpha_{21}Y_1 + \alpha_{22}Y_2 + \cdots \alpha_{2n}Y_n + \varepsilon_2 \quad \text{.....} \quad (7)$$

$$X_p - \varphi_p = \alpha_{p1}Y_1 + \alpha_{p2}Y_2 + \cdots \alpha_{pn}Y_n + \varepsilon_p$$

Where, X_i = 1, 2, 3…, n is observed variables, ε_i = 1, 2, 3, ..., n and Y□ = 1, 2, 3..., n is unobserved

Equivalently, the set of equations can be written as;

$(X-\varphi)=Z\rho+\varepsilon$ …..……..……,,,,,……...……...…….……...(8)

Where Z is the factor pattern matrix consisting of its elements a_{ij}, which are the factor loadings, X is the $Px1$vector of elements, X_i, i =1, 2, 3….,n and φ is a vector of their means, ρ is the rx1 vector of elements Yj,j=1,2,3...., n is common factors assumed to have mean 0 and a variance 1, ε_i,i=1,2,3,……,n are unique factors and are assumed to have mean 0, varianceσ_i^2,i=1,2,3…..,n, they form the p x1 vector φ, it is assumed that the unique and common factors are uncorrelated.

Sample Adequacy Tests for Factor Analysis

Sample adequacy is a critical prerequisite for factor analysis. The first step is to assess the ratio of cases to variables; a minimum ratio of 4:1 is recommended, meaning at least four observations per variable (Sigudla & Maritz, 2023). In this study, the ratios were 11:1 for locus of control, 9:1 for motivation, and 23:1 for self-efficacy, all exceeding the threshold. The next step is the Kaiser-Meyer-Olkin (KMO) test, which evaluates the suitability of the data for factor analysis. A KMO value above 0.50 is considered acceptable, with values between 0.7 and 1.0 indicating strong sampling adequacy. Values between 0.5 and 0.6 are marginally acceptable, while those below 0.5 suggest that factor analysis may not be appropriate due to high partial correlations among variables. Together, these tests confirm that the data are suitable for robust factor analysis.

The Kaiser-Meyer-Olkin (KMO) measure is given as:

$$KMO_j=\frac{\sum_{k\neq j}^{r2}\ j^{k}}{\sum_{k\neq j}^{r2}\ j^{k}+\sum_{k\neq j}^{q2}\ j^{k}},0\le KMO\le 1 \text{ ……..…….. (9)}$$

$$\mathbf{0}\le \boldsymbol{KMO}\le \mathbf{1}$$

Where, KMO_j is the Measure of Sampling Adequacy for the *jth* variable, r_{jk} represents an element of the correlation matrix $\boldsymbol{R}$, and q_{jk} represents an element of the anti-image correlation matrix $\boldsymbol{Q}$,

Determinants of business success applying the dimensions of the entrepreneur's personality trait as attribution to business success

Ordered logistic regression

Considering the nature of the dependent variable (three different levels of business success in an ordered scale), the most appropriate empirical model to estimate the determinants of casual attribution to business success (subjective and objective) is the ordered logistic regression. The ordered logistic analysis is based on the structural specification in (10) where X_i is the vector explanatory variables, β is a k×1 vector of unknown regression parameters to be estimated with the first element being the intercept and ε_i is the error effect.

$$y^* = \beta' X_i + \varepsilon_i \quad \text{----------(10)}$$

Considering a latent (unobserved) variable y* which maps to an ordered observed variable y,

$$y^* = m \quad \text{if } \tau_{m-1} \leq y_i^* < \tau_m \text{ for } m = 1, 2.....J \quad \text{----------(11)}$$

with τ's as thresholds or cut points. If the continuous latent variable y^* is related to the ordinal variable, then the extreme categories are $\tau_0 = -\infty$ and $\tau_j = \infty$.

For an ordinal dependent variable y_i with j categories,

$$\begin{aligned} y_i &= 0 \text{ if } y \leq \tau_0 \\ y_i &= 1 \text{ if } \tau_0 < y \leq \tau_1 \\ y_i &= 2 \text{ if } \tau_1 < y \leq \tau_2 \quad \text{----------(12)} \\ y_i &= J \text{ if } y > \tau_{J-1} \end{aligned}$$

The error term ε_i is logistically distributed with mean of 0, variance of $\pi^2/3$ and a probability density function (pdf) as well as cumulative density function (cdf) as shown in equations 13 and 14 respectively (ibid).

$$\lambda(\varepsilon) = \frac{\exp(\varepsilon)}{[1+\exp(\varepsilon)]^2} \quad \text{----------(13)}$$

$$\wedge(\varepsilon) = \frac{\exp(\varepsilon)}{1+\exp(\varepsilon)} \quad \text{----------(14)}$$

With a dependent variable *Y* with values 0, 1 and 2 for three ordinal responses (low, moderate and high levels of business success), the probability of obtaining an outcome are represented as $P_0 = P_r (y=0)$, $P_1 = P_r (y=1)$ *and* $P_2 = P_r (y=2)$ for outcomes of 0, 1 and 2 respectively. The parameter estimates are obtained using maximum likelihood estimation procedure.

Model specification

The ordered logistic regression model which expresses the relationship between categorized business success and dimensions of causal attribution is empirically specified as follows:

$$BSUCC = \alpha + \beta_1 ATTABIL_{LC} + \beta_2 ATTBSPWF_{LC} + \beta_3 ATTLUCK_{LC} + \beta_4 ATTRESIL_{SE} + \beta_5 ATTMKTINV_{SE} + \beta_6 ATTCMP_{SE} + \beta_7 ATTIDBIZ_{SE} + \beta_8 MOTGWF_{MTV} + \beta_9 MOTSUCC_{MTV} + \beta_{10} ENTSKILLMOT_{MTV} + \beta_{11} MOTFMTRAD_{MTV} + \varepsilon \quad \text{----------(15)}$$

Variables

Table 2: Description of variables - Dimension of personality traits attributed to business success

Dimension of personality traits		Entrepreneur's attribution to business success	*apriori* sign
	BSUCC	Level of entrepreneur's business success (dependent variable) at three levels (in an ordinal scale)	
Locus of control	ATTABIL	Attribution of entrepreneur's business success to their personal competences	+
	ATTBSPWF	Attribution of entrepreneur's business success to influence of powerful others	+/-
	ATTLUCK	Attribution of entrepreneur's business success to chance	+
Self-efficacy	ATTRESIL	Attribution of entrepreneur's business success to personal -resilience	+
	ATTMKTINV	Attribution of entrepreneur's business success to ability to create innovative ideas about marketing of products	+
	ATTCMP	Attribution of entrepreneur's business success to Readiness to operate in highly competitive settings	+
	ATTIDBIZ	Attribution of entrepreneur's business success to ability to develop new business ideas frequently	+
Motivation	MOTGWF	Improvement in general welfare of entrepreneur's family as a motivation to business success	+
	MOTSUCC	Entrepreneur's Strong desire to succeed in life as a motivation to business success	+
	ENTSKILLMOT	Entrepreneurs putting their entrepreneurial skills to good use as a motivation factor for business success	+
	MOTFMTRAD	To Continue Family entrepreneurial path as a motivating factor for business success	+

Source: authors

Assumptions underlying the specified Logit regression model

Proportional Odds Assumption: The ordered logistic regression model assumes that the relationship between each pair of outcome categories—low, moderate, and high levels of business success—is the same. This implies that the effect of each explanatory variable on the log-odds of being in a higher versus a lower category of business success is constant across all thresholds. In other words, the odds ratios associated with the predictors do not vary between the transitions from low to moderate and from moderate to high business success.

Results and Discussion

Business Success Classification and Findings

Business success was classified into low, moderate, and high based on mean indicator scores: low (≤0.33), moderate (0.33–0.66), and high (>0.66–1). The average objective and subjective business success scores were 0.49 and 0.58, respectively, both indicating moderate success (Table 3). About 50% of firms achieved moderate objective success, while 73% achieved moderate subjective success (Table 4). Baker & Welter (2020) note that entrepreneurial success varies, with some firms reaching high success through strategies like innovation, technology adoption, or targeting niche markets, showing there is no single path to success.

Table 3: **Average Score of Objective Business Success Indicators**

(N=159)	Minimum	Maximum	Mean	Std. Dev.
Average percentage growth in volume of sales	0.04	0.90	0.34	0.19
Percentage of average volume of sales per employee (end 2022 to end 2024)	0.04	0.87	0.29	0.21
Average employee turnover (end 2022 to end 2024)	0.16	1.02	0.84	0.31
Mean score for objective measurement of business success.	0.19	0.89	0.49	0.18
Mean score for subjective measurement of business success.	0.22	1.02	0.58	0.17

Source: Authors' computation

Table 4: Levels of business success (%)

	objective business success	subjective business success
Low business success	30.4	7.7
Moderate business success	49.8	72.6
High business success	19.8	19.7
Total	100.0	100.0

Source: Author's computation

Entrepreneur's personality traits as attribution to business success – Dimensions of causal attribution to business success

Locus of Control

Most entrepreneurs in the study demonstrated an internal locus of control, as reflected by strong agreement with statements attributing business success to hard work (84.2%) and personal competence (84.3%). Nevertheless, 32.2% of respondents also acknowledged the role of chance in their success (Table 5). These findings align with Kerr et al. (2017), who emphasize that entrepreneurs with an internal locus of control are more likely to credit their achievements to self-belief and personal capability.

Table 5: **Statements Reflecting Locus of Control** (%)

	5	**4**	**3**	**2**	**1**	**Total**
	Responses (%)					
I feel that my success is mostly determined by people in powerful positions	15.4	41.4	12.7	14.2	16.3	100
My success is controlled by accidental happenings	2.9	9.6	12.6	53.8	21.1	100
My success is purely by chance	4.8	27.4	19.3	27.6	20.9	100

My success is determined by my own actions/abilities	30.8	53.5	12.6	2.5	0.6	100
My success is based on my hard work	42.8	41.4	10.7	3.7	1.4	100
I can pretty much determine what will happen in my life.	9.4	28.3	25.2	30.2	6.9	100
My success depends on pleasing people above me	0.9	11.1	19.8	49.7	18.5	100

Source: Authors' computation.

Numbers 1-5 represent scores under categories (1= Strongly Disagree; 2 = Disagree; 3 = Somewhat Agree; 4 = Agree; 5= Strongly Agree)

Self-efficacy Constructs from Factor Analysis

Results in Table 6 indicate that entrepreneurs' self-efficacy varies across different tasks. While many respondents were unsure or slightly unsure of their abilities, there were areas where confidence was higher. For example, 34.8% of entrepreneurs were sure or very sure about their ability to work under pressure to achieve business objectives, and 26.8% felt confident in developing a business plan. However, confidence was notably lower (among entrepreneurs) in coping with unexpected events, with only 8.5% of respondents, feeling sure of their abilities to cope with unexpected events.

Table 6: **Items Measuring the Entrepreneur's Self-Efficacy** (%)

	5	**4**	**3**	**2**	**1**	**Total**
			Responses (%)			
Can work under pressure to achieve business objectives	8.2	26.6	28.6	31.3	5.3	100
Not afraid of competition	0.6	6.9	13.2	60.4	18.9	100
Enter new markets locally	5.1	12.2	27.4	44.9	10.4	100
Develop new ideas for business	2.3	9.5	31.9	48.8	7.5	100
Expand share of firm's current market	2.8	4.3	12.7	60.4	19.8	100
Introduce new ways of marketing	1.7	12.3	24.8	52.6	8.6	100

Develop a business plan	2.6	24.2	35.7	33.4	4.1	100
Conduct financial analysis of business	1.3	7.5	18.9	54.7	17.6	100
Take calculated risks	0.9	26.2	27.9	39.8	5.2	100
Make decisions under uncertainty	0.8	9.3	22.4	56.7	10.8	100
Cope with unexpected events	1.7	6.8	19.6	56.6	15.3	100
Set business goals	2.4	9.6	22.9	51.2	13.9	100

Source: Authors' computation.
(1= Completely Unsure; 2 = Unsure; 3 = Slightly Unsure; 4 = Sure; 5= Very Sure)

Motivation Constructs from Factor Analysis

Findings indicate that entrepreneurship in this context is primarily opportunity-driven. Key motivators include increasing household income (86.1%), gaining work-life freedom (75.5%), quick cash flow (75.5%), and satisfaction from self-employment (78.4%). These align with Liñeiro et al. (2024), who emphasize intrinsic motivations over external pressures in venture creation. In contrast, necessity-based drivers like job loss (17.8%) and lack of alternatives (30.3%) were less influential. Traditional influences such as family background also played a minor role, with only 46.5% citing a business-oriented upbringing and 33.3% following family footsteps (Table7). Curtin et al. (2024) highlight that modern entrepreneurship is increasingly shaped by personal values and autonomy, supporting the observed trend toward opportunity-driven motivations.

Table 7: Statements Reflecting Entrepreneurial Motivation for Success (%)

	5	4	3	2	1	Total
	Responses (%)					
To increase the level and security of household income	30.7	55.4	6.8	4.9	2.2	100
To improve your status in the community	7.1	51.3	24.5	9.3	7.8	100
To have freedom over your work life	9.3	66.2	12.8	3.9	7.8	100
Scarce options for generating extra income	4.4	49.1	21.4	17.6	7.5	100
To establish a quick cash flow	23.7	51.8	11.5	9.2	3.8	100

Faced with limited or no alternatives	1.7	28.6	23.2	28.9	17.6	100
To maximize your potential	7.2	46.2	11.4	32.6	2.6	100
My prior employment came to an end	2.9	14.9	14.3	41.7	26.2	100
Grew up in a business-oriented household	6.7	39.8	22.5	26.4	4.6	100
Faced low levels of risk	7.6	43.8	20.5	19.4	8.7	100
Motivated to become self-employed	25.8	50.8	10.3	7.9	5.2	100
To follow in my family's entrepreneurial footsteps	6.8	26.5	16.7	31.3	18.7	100
Greater joy from being self-employed	29.7	48.7	8.7	7.2	5.7	100

Source: Author's computation; numbers 1-5 represent scores under Likert scale.
(1= Very unimportant; 2 = Unimportant; 3 = Neither important nor unimportant; 4 = Important; 5= Very Important)

Factor analysis of the dimensions of causal attribution to business success

Factor analysis revealed three constructs influencing entrepreneurial success: personal competences, influence of others in powerful positions, and attribution to luck. These align with internal and external locus of control dimensions. Strong factor loadings for internal factors like hard work (0.89) and personal ability (0.75) suggest internal control is a stronger predictor of success. The analysis showed high reliability with a KMO value of 0.89 and Cronbach's alpha of 0.82, explaining 66.8% of the variance. These findings support the view that personal competence and self-belief are more strongly linked to entrepreneurial success than external attributions.

Table 8**: Rotated factor matrix for dimensions of locus of control to business success**

	Components		
	Influence of others in powerful positions	Personal competences	attribution of business success to chance
I owe much of my success to being lucky	0.232	0.053	**0.767**
Accidental events play a key role in determining my success	0.410	-0.312	**0.764**
My success is entirely the result of chance	0.381	-0.060	**0.870**
My Success is largely determined by my personal initiative and capabilities	-0.323	**0.750**	-0.063
Hard work serves as a critical determinant of my personal and professional success	-0.301	**0.890**	-0.053
My Success is contingent upon maintaining favorable relationships with those in authority	**0.768**	-0.320	0.175
My success is frequently influenced by the decisions of individuals in authoritative roles	**0.780**	-0.266	0.217
My life outcomes are largely subject to my personal decision-making and control.	0.065	**0.749**	-0.836
KMO and Bartlett's Test			
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			0.89
Bartlett's Test of Sphericity	Approx. Chi-Square		1412.04
	df		106.00
	Sig.		0.00
Cronbach's alpha coefficient			*0.82*
Cumulative variance explained by all constructs			*66.8%*

Source: Authors' computation; Factor loadings in bold converge in a construct

Factor Analysis of Self-Efficacy Constructs for Business Success

Factor analysis revealed four key self-efficacy constructs contributing to entrepreneurial success: Demonstration of Inner Strength and Persistence, Strong Marketing Capabilities, Competitive Drive, and Proficiency in Business Operations. The strongest loadings were observed in performing under stress (0.976), adapting to challenges (0.964), and decision-making under uncertainty (0.915),

highlighting the importance of resilience. Marketing capabilities such as exploring untapped markets (0.972) and introducing innovative strategies (0.968) reflect proactive behavior. Competitive drive was evident in embracing competition (0.942) and strategic planning (0.869), while operational proficiency included financial evaluation (0.876) and defining objectives (0.710). The model showed strong reliability with a KMO value of 0.78, Cronbach's alpha of 0.76, and explained 79% of the variance. These findings align with Visoso (2024), who emphasized the role of self-efficacy in fostering resilience, innovation, and strategic growth (Table 9).

Table 9**: Rotated factor matrix for Self-efficacy As Attribution to Business Success**

	Components			
	Demonstration of Inner Strength and Persistence	Strong marketing capabilities	Strong competitive drive	Proficiency in business operations
Performs effectively under stress to meet business goals	**0.976**	0.063	-0.013	0.036
Embrace competition as a growth opportunity	-0.048	0.056	**0.942**	0.076
Explore untapped local markets	0.080	**0.972**	0.158	-0.021
Grow the business's share in existing markets	0.042	**0.943**	0.082	0.065
Create fresh strategies to improve the business	0.067	0.143	0.088	**0.952**
Formulate a comprehensive roadmap for the business	0.214	-0.182	**0.869**	0.134
Introduce innovative marketing strategies	0.031	**0.968**	0.097	-0.024
Evaluate the financial performance of the business	0.085	-0.009	0.069	**0.876**
Assess and manage risks strategically	**0.740**	0.341	-0.156	-0.158
Formulate judgments in contexts characterized by uncertainty and unpredictability.	**0.915**	0.069	-0.022	0.024

Define clear objectives for the business	0.414	-0.125	0.082	**0.710**
Adapt quickly to unforeseen challenges	**0.964**	0.059	-0.015	0.063
KMO and Bartlett's Test				
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.				**0.78**
Bartlett's Test of Sphericity	Approx. Chi-Square			2312.96
	df			137.00
	Sig.			0.00
Cronbach's alpha coefficient				*0.76*
Cumulative variance explained by all constructs				*79%*

Source: Author's computation; Factor loadings in bold converge in a construct

Factor Analysis of Motivational Constructs for Business Success

Table 10 identified four motivational constructs: drive for success, better family life, application of entrepreneurial skills, and continuation of family tradition. Drive for success was marked by strong loadings for low perceived risk (0.871) and few income alternatives (0.780), highlighting necessity and risk minimization (Williams & Williams, 2014). Better family life was represented by stabilizing household income (0.870), aligning with Stephan and Uhlaner (2010). Application of entrepreneurial skills showed high loadings for desire for self-employment (0.887) and fulfillment in self-employment (0.799), supporting Shane (2003). Continuation of family business was reflected in maintaining legacy (0.875), consistent with Zellweger et al. (2011). The factor structure was statistically robust (KMO = 0.81, Bartlett's $\chi^2 = 796.89$, $p < 0.001$), explaining 87% of the variance with a Cronbach's alpha of 0.62.

Table 10**: Rotated factor matrix for motivational dimension of causal attribution to business success**

	Components			
	Drive for success	Better family life	Apply entrepreneurial skills effectively	To Continue Family entrepreneurial path
To stabilize and raise household income	0.076	**0.870**	0.065	0.084
To enhance social status	-0.1457	**0.768**	0.219	-0.228
To gain personal autonomy	0.216	**0.604**	0.265	0.072
There are few income alternatives	**0.780**	0.103	**0.657**	0.323
To generate quick income	0.280	**0.658**	0.314	0.236
Lacked viable options	0.266	0.289	**0.762**	0.048
To utilize full skillset	0.401	0.218	-0.056	**0.672**
Experienced job loss	**0.739**	0.202	0.178	0.189
Entrepreneurial family background	0.038	0.058	0.080	**0.668**
Low perceived risk	**0.871**	0.418	0.322	-0.034
Desire for self-employment	0.424	0.389	**0.887**	0.218
Maintain family business legacy tradition/business	0.376	-0.271	0.398	**0.875**
Fulfillment in self-employment	0.262	0.057	**0.799**	0.321
KMO and Bartlett's Test				
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.				0.810
Bartlett's Test of Sphericity	Approx. Chi-Square			796.89
	df			132.00
	Sig.			0.00
Cronbach's alpha coefficient				*0.62*
Cumulative variance explained by all constructs				*87%*

Source: Author's computation; Factor loadings in bold converge in construct indicated

Personality Trait Dimensions as Predictors of Business Success

Table 11 reports ordered logit estimates linking entrepreneurs' personality traits – operationalized as causal attributions—to success. For subjective success, Better Family Life is the strongest predictor (0.725, $p < 0.01$), with High Creativity in Marketing also positive (0.407, $p < 0.1$), while Attribution to Chance is negative (−0.459, $p < 0.1$). Objective success is driven by Personal Competences (0.824, $p < 0.01$), Inner Strength/Persistence (0.423, $p < 0.01$), Creativity in Marketing (0.187, $p < 0.05$), and Desire to Succeed (0.872, $p < 0.01$). Continuing the family entrepreneurial path has a moderate effect (0.618, $p < 0.1$), reflecting legacy benefits and constraints.

Table 11: **Analysis of Causal Attribution Effects on Business Success Using Ordered Logistic Regression**

Dimensions of causal attribution	Variables	(1) subjective business success	(2) objective business success
Locus of control	Personal competences	0.145	0.824***
		(0.193)	(0.194)
	Influence of others in powerful positions	0.284	-0.148
		(0.167)	(0.195)
	Attribution of business success to chance	-0.459*	0.186
		(0.267)	(0.289)
	Demonstration of Inner Strength and Persistence	0.142	0.423***
		(0.194)	(0.174)
Self-efficacy	High creativity in marketing	0.407*	0.187**
		(0.224)	(0.193)
	Readiness to operate in highly competitive settings	0.196	-0.0268
		(0.286)	(0.202)
	Proficiency in business operations	0.365	0.392
		(0.232)	(0.192)
motivation	Better family life	0.725***	0.329*
		(0.209)	(0.236)
	Strong desire to succeed in life	0.158	0.872***
		(0.186)	(0.233)
	Put entrepreneurial skills to good use	-0.329	-0.162
		(0.216)	(0.218)
	To Continue Family entrepreneurial path	0.285	0.618**
		(0.298)	(0.269)
	cut1		
	Constant	-2.823***	-1.478***
		(0.279)	(0.112)
	cut2		
	Constant	1.853***	2.178***
		(0.227)	(0.247)
	Observations	158	158

Source: author's computation
*Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1*

Marginal Effects of Attribution Constructs on Business Success

Attribution constructs relate linearly to success. For subjective success, attributing outcomes to chance raises low success by 2.5% and lowers moderate/high by 4.5%/3.8% (Liu, 2021). Family‐oriented motivation (Better Family Life) increases moderate/high by 9.7%/10.8%. For objective success, applying entrepreneurial skills elevates all levels (low 39.4%, moderate 15.6%, high 20.1%). Inner Strength/Persistence cuts low by 6% and lifts moderate/high by 14.7%/10.5% (Hudson, 2025). By

continuing family entrepreneurial path, firms are 19.8% more likely to achieve high objective success, suggesting that legacy benefits could accrue at the top end of business success.

Table 13**: Marginal effects of significant dimensional constructs on levels of business success**

Subjective business success			
	low	moderate	high
Chance	0.025	0.045	0.038
Strong marketing capabilities	0.022	0.070	0.185
Better family life	-0.035	0.097	0.108
Objective business success			
	low	moderate	high
Personal competences	0.156	0.039	0.078
Demonstration of Inner Strength and Persistence	-0.060	0.147	0.105
Strong marketing capabilities	0.235	0.098	0.067
Better family life	0.079	0.060	0.091
Put entrepreneurial skills to good use	0.394	0.156	0.201
To Continue Family entrepreneurial path	0.092	0.134	0.198

Source: authors' computation

Conclusion

This study assessed business success using both objective (sales turnover per employee, employee turnover, sales growth) and subjective (locus of control, self-efficacy, motivation) indicators. Firms were classified as having low, moderate, or high success. Most achieved moderate success on both dimensions. Entrepreneurs with internal locus of control, strong self-efficacy, and high motivation are significantly more likely to attain higher business success. Key drivers include inner strength, persistence, marketing skills, and achievement drive. Marginal effects analysis indicate that internal attributions—competence, resilience, and intrinsic motivation—best predicted both subjective and objective success, while external attributions diminished perceived success. The findings show that personality traits of entrepreneurs in Ghana's informal agrifood micro and small agribusinesses have significant influences on their business success.

Recommendation

To boost success among informal agri-food MSEs in Ghana, the Rural Enterprises Foundation should implement training under the National Entrepreneurship and Innovation Programme (NEIP), and incorporate psychological development to strengthen internal locus of control, self-efficacy, and intrinsic motivation. Additionally, NEIP should establish mentorship programs linking established firms with start-ups in a bid to foster resilience and competence of entrepreneurs through shared experience and guidance.

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