Journal of Economic Education and Entrepreneurship Studies
Vol. 7, No. 2, April 2026, pp. 13-25
ISSN: 2722-3744 (Print) 2776-0278 (Online)
https://doi.org/10.62794/je3s.v7i2.6

Driving Cocoa Farm Performance through Market Orientation and Institutional Support: The Mediating Role of Innovativeness

Maya Faridhotul Aini*, Sri Palupi Prabandari, Radityo Putro Handrito
Faculty of Economics and Business, Brawijaya University, Indonesia

*Corresponding Author
Jl. Veteran No.10-11, Ketawanggede, Kec. Lowokwaru, Kota Malang, Jawa Timur 65145.
e-mail: ainimaya11@gmail.com

Received: January 24, 2026; **Revised:** March 30, 2026; **Accepted**: April 10, 2026

Abstract: This study aims to analyze the mechanisms for enhancing cocoa farm performance through the integration of market orientation strategies and institutional support, with a specific focus on the mediating role of farmer innovativeness. By positioning farmers as primary decision-makers underpinned by Upper Echelons Theory, this research explores how individual innovation capacity influences business performance in the upstream sector. Data were collected from 245 smallholder cocoa farmers in Indonesia and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that market orientation exerts a significant positive influence on both farmer innovativeness and business performance. Institutional support, particularly through regulative and cognitive pillars, significantly enhances innovativeness and performance directly. However, the mediation analysis shows that while innovativeness significantly bridges the relationship between market orientation and performance, it does not significantly mediate the link between institutional support and performance. These findings suggest that institutional aid often impacts operational performance directly without necessarily triggering deep-seated innovative transformations. The implications of this research underscore the necessity for policymakers to prioritize human capital development and knowledge infrastructure to foster a more innovative and resilient cocoa agribusiness sector.

Keywords: upper echelons theory, market orientation, institutional support, innovativeness, business performance

How to Cite: Aini, M. F., Prabandari, S. P., & Handrito, R. P. (2026). Driving Cocoa Farm Performance through Market Orientation and Institutional Support: The Mediating Role of Innovativeness . Journal of Economic Education and Entrepreneurship Studies, 7(2), 13–25. https://doi.org/10.62794/je3s.v7i2.6

INTRODUCTION

The Indonesian agribusiness sector is currently facing a critical economic crisis, particularly within the national cocoa industry. As a major global producer, Indonesia's position has plummeted to seventh in world production a drastic decline from 2022 when it held the third-rank position globally (ICCRI, 2025). Paradoxically, this contraction in production volume occurs amidst a "golden momentum" where global cocoa prices reached a historic peak of 10,000 Euros per ton in 2025 (ICCO, 2024). While this represents a significant macro-economic opportunity, the micro-level reality remains far removed from the prosperity of cocoa farmers, who are trapped in a stagnation of business performance. Despite the price surge, Indonesia's cocoa export

value has experienced a contraction, exacerbated by land productivity levels stagnating at only 500 to 600 kg/ha (BPS, 2024). This discrepancy suggests that upstream farmers remain entangled in a subsistent economic ecosystem, unable to effectively transform market opportunities into optimal profitability.

To examine this phenomenon, this study employs Upper Echelons Theory (UET) as its primary theoretical framework (Hambrick & Mason, 1984). UET postulates that strategic outcomes and the performance effectiveness of a business unit are direct reflections of the cognitive characteristics, values, and experiences of its top decision-makers. In the context of smallholder plantations, farmers are positioned not merely as cultivators but as sole strategic decision-makers possessing full autonomy over asset management (Chen et al., 2019). The application of UET shifts the analytical focus from mere physical resource ownership toward the individual farmer's cognitive capacity to process external stimuli. Farm performance is thus measured through the owner's perceptual assessment of sales growth and profit margins tangible outputs of individual managerial competence in navigating global market fluctuations (Chen et al., 2019). The application of UET in this study provides a unique theoretical contribution by repositioning smallholder farmers as autonomous "top managers" of their strategic business units.. This novelty transcends conventional entrepreneurship frameworks by shifting the analytical focus from mere physical resource ownership toward the individual farmer's internal cognitive capacity to process external stimuli.. It argues that farm performance is a manifestation of the farmer's individual managerial competence in navigating global market fluctuations.

One of the most crucial external cognitive stimuli for individual farmers is Market Orientation (Kohli & Jaworski, 1990). Theoretically, this concept encompasses market intelligence generation, intelligence dissemination, and adaptive responsiveness to customer needs and competitor movements. (Najafi-Tavani et al., 2016) For farmers, market orientation serves as a strategic radar requiring the cognitive ability to interpret global quality standards, such as buyer preferences for fermented cocoa beans. However, empirical evidence suggests that despite having access to information, many farmers retain a short-term rationality, selling unfermented, lower-quality beans for immediate liquidity (Nagara G et al., 2024). This proves that market insights do not impact performance unless accompanied by the individual cognitive capability to transform that information into directed innovative behavior (Alhakimi & Mahmoud, 2020; Tham-Agyekum et al., 2021).

Beyond market orientation, farmer success is heavily contingent upon Institutional Support. Institutions function as the "rules of the game," providing stability to economic behavior through regulative, normative, and cognitive dimensions (Manolova et al., 2008; Scott, 1987). In developing economies, institutional support acts as a vital catalyst to fill the institutional voids faced by small-scale actors (Aidis et al., 2008; North Douglass C, 2012). The Indonesian government has responded through various affirmative policies and the provision of post-harvest machinery (Zhu et al., 2012). Unfortunately, an implementation gap persists, where physical assistance often remains underutilized or abandoned due to a lack of alignment with the farmers' cognitive abilities and technical knowledge. Effective institutional support must extend beyond physical equipment to enrich the farmers' knowledge capacity, empowering them to make innovative strategic decisions (Manolova et al., 2008).

In response to the "broken link" between external resources and performance, this research argues that the success of such conversion depends on the farmer's Innovativeness. (Ihinmoyan T, 2011; Verbees, 2004) Innovativeness is viewed as an individual's dynamic capability to support new ideas and conduct experiments that result in product novelty or process

improvements (Saari et al., 2024; Yousaf et al., 2021). Within the UET framework, innovativeness is a manifestation of a farmer's cognitive flexibility in transforming market intelligence and institutional support into a competitive advantage. Innovation is thus positioned as a key mediating variable that "activates" passive resources into tangible economic gains through quality improvement and operational efficiency (Alhakimi & Mahmoud, 2020; Makanyeza et al., 2023).

The significance of this research lies in the integration of internal cognitive factors (UET) and external institutional factors in explaining innovation failure at the upstream level (Hambrick & Mason, 1984; Manolova et al., 2008). Historically, many agribusiness development programs have failed to deliver sustainable financial impacts because they ignored the cognitive dimension of the farmer as the "top manager" of their land. By understanding that innovation is the result of individual strategic interpretation, this study seeks to fill the literature gap regarding the mediating mechanism of innovation in linking market orientation and institutional support to cocoa farm performance (Amankwah-Amoah et al., 2018). This is crucial amidst global industry dynamics that demand farmers evolve from being mere objects of policy into independent, competitive, and innovative subjects.

Based on this urgency, this study aims to test an empirical model regarding the mediating role of innovation on farm performance through a Full SEM-PLS analysis (Hair et al., 2019). By focusing the analysis at the individual level through the Upper Echelons lens, this research is expected to provide a theoretical contribution to the agribusiness entrepreneurship literature in developing countries (Chen et al., 2019). Furthermore, the results of this study are expected to serve as a foundation for designing more precise assistance schemesmoving beyond generic physical aid to focus on building the cognitive capacity and innovativeness of farmers to achieve sustainable economic welfare in a competitive global market.

METHOD

This research employs a quantitative design with an explanatory research approach to examine the hypothesized causal relationships between variables (Sekaran, 2016). The primary focus of this design is to dissect the mediating mechanism of innovativeness in transforming the influence of market orientation and institutional support on farm performance. Data were collected through a cross-sectional survey method to capture a comprehensive snapshot of management phenomena within smallholder cocoa farming units in Indonesia during a specific period. This design was selected for its capacity to provide a broad overview of the adaptive capabilities of farmers as autonomous managers facing volatile global market dynamics.

The population of this study encompasses all smallholder cocoa farmers in Indonesia who act as the sole strategic decision-makers of their business units. Given the inaccessible nature of the total population (unknown population), this research applied a non-probability sampling technique using a purposive sampling method. To ensure data quality, respondent criteria were strictly defined: (1) the primary owner or manager with full authority over farming strategy; (2) a minimum of 5 years of farming experience to ensure cognitive maturity in navigating various business cycles; and (3) active involvement in the cocoa supply chain. Through this procedure, 245 respondents were gathered, representing diverse cocoa production centers in Indonesia, including Sulawesi as the largest hub, Sumatra, Kalimantan, and Java specifically East Java. This sample size exceeds the structural equation modeling (SEM) rule of thumb, which recommends a minimum of 5–10 times the number of research indicators (Hair Josephb F. Hair, 2017).

All variables were measured using a 5-point Likert scale adapted from established literature to ensure construct validity. Market orientation was operationalized through the

farmer's cognitive ability to generate customer intelligence and monitor competitors. Institutional support was classified into regulative, normative, and cognitive pillars to capture policy effectiveness and knowledge transfer from external agencies. Meanwhile, innovativeness focused on the individual capacity to implement renewals in products and production processes (OECD, 2014). Finally, farm performance was measured perceptually through indicators of sales growth, increased profitability, and market target achievement as reflections of the effectiveness of the farmer's managerial decisions.

Primary data collection was conducted using a hybrid approach to optimize data diversity. An online survey was distributed via the Qualtrics platformutilizing strict data filtration features to minimize missing values through digital community networks and agricultural extension officers. Simultaneously, offline surveys were conducted through structured field interviews to reach farmers in remote areas with limited internet access, ensuring the data remained representative of traditional farmer profiles. To maintain objectivity and mitigate Common Method Bias (CMB), respondent anonymity was fully guaranteed, and questionnaire items were randomized with clear instructions stating that there were no right or wrong answers.

Data analysis was performed using Full Structural Equation Modeling-Partial Least Squares (SEM-PLS) with SmartPLS 4.0 software. This method was chosen for its robustness in handling complex mediation models at the individual level without requiring normal distribution assumptions. The first stage of analysis involved evaluating the measurement model (outer model), which included testing convergent validity via outer loadings (> 0.70) and Average Variance Extracted (AVE > 0.50) (Hair Josephb F. Hair, 2017), discriminant validity via the Fornell-Larcker criteria and the Heterotrait-Monotrait Ratio (HTMT), and construct reliability using Composite Reliability (CR) and Cronbach's Alpha (> 0.70) (Sarstedt et al., 2019).

The second stage involved evaluating the structural model (inner model) to test the strength of relationships through path coefficients and the coefficient of determination (R^2). The mediation effect was tested using the Bootstrapping method with 5,000 subsamples to determine the significance of indirect effects based on p-values and t-statistics. This systematic analytical approach ensures that the mechanism by which external resources are transformed into economic performance through innovativeness can be empirically validated with high accuracy, meeting the standards of reputable scientific publications.

RESULTS AND DISCUSSION

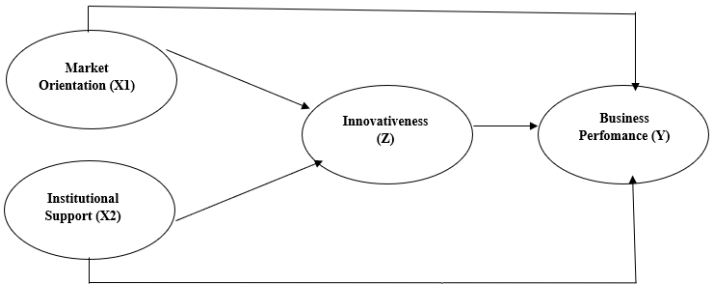

Figure 1. Conceptual Framework

Based on the phenomenon described in Chapter 1 regarding the extreme fluctuations in global cocoa prices in 2026, smallholder farming units are pressured not only to survive but also to enhance business performance to remain competitive. The primary problem identified is the gap between significant market potential and the reality of stagnant farmer performance. This discrepancy indicates that business performance cannot be achieved through routine activities alone; rather, it requires strategic impetus from both internal and external factors.

Consequently, this research model is constructed by positioning Innovativeness (Z) as an intervening variable. The underlying logic posits that market orientation and institutional support act as critical inputs that trigger creativity and novelty (innovation) among farmers, which is ultimately expected to serve as the primary engine for driving Business Performance (Y). This conceptual framework aims to test whether innovation is indeed the mandatory bridge for cocoa farmers to transform market opportunities and institutional assistance into tangible financial success.

Research Results

This section presents the results of the empirical analysis aimed at addressing the research hypotheses regarding the mechanisms for enhancing farm performance through the mediating role of innovativeness. The initial evaluation focused on the measurement model to ensure that all indicators met the requisite criteria for validity and reliability. Based on the convergent validity tests, all outer loadings were found to be above the required threshold, further substantiated by Average Variance Extracted (AVE) values that exceeded the minimum standard. This confirms that each indicator in the model accurately explains the variance of its respective latent construct. Reliability testing conducted via Composite Reliability and Cronbach's Alpha also demonstrated excellent internal consistency across all variables, confirming the instrument's reliability for subsequent testing stages.

Discriminant validity was subsequently evaluated to ensure that each construct in the model is empirically distinct. Utilizing the Fornell-Larcker criteria and the Heterotrait-Monotrait (HTMT) ratio, the analysis indicates that correlations between variables remain within permissible limits. Once the measurement model was established as valid and reliable, the analysis proceeded to the structural model evaluation to test the strength of the causal relationships. The coefficient of determination (R^2) indicates that the model possesses a robust capacity to explain the variations in innovativeness and cocoa farm performance. These values provide theoretical justification that the integration of market orientation and institutional support serves as a significant predictor of the strategic success of upstream farmers.

Hypothesis testing was conducted using the bootstrapping procedure to examine the significance of each relationship path. The results demonstrate that market orientation and institutional support exert a positive and significant direct influence on the individual farmer's innovativeness. This finding indicates that a sharper understanding of market dynamics and stronger support from external agencies lead to a higher propensity for innovative experimentation among farmers. Furthermore, innovativeness proved to have a significant effect on enhancing farm performance, reinforcing the premise that the capacity to introduce product and process novelty is a primary driver of land profitability amidst global price fluctuations.

The core focus of these findings lies in the mediation effect analysis, which highlights the role of innovativeness as a strategic transformation bridge. The analysis of indirect effects reveals that innovativeness significantly mediates the relationship between market orientation and business performance, as well as the relationship between institutional support and business performance. This phenomenon explains that market insights and physical government assistance will not yield tangible economic impacts for farmers unless they are internalized into innovative capabilities. Through this mediating mechanism, it is evident that innovativeness acts as the "engine" that converts information inputs and support into sustainable economic outputs for individual cocoa farmers.

Table 1. HTMT Fornell Lecker

	Business Performance	Innovativeness	Institutional Support	Market Orientation
Business Performance	0,724			
Innovativeness	0,618	0,647		
Institutional Support	0,641	0,669	0,692	
Market Orientation	0,642	0,614	0,679	0,635

After ensuring convergent validity, the subsequent step involved evaluating discriminant validity to confirm that each construct in the model is empirically distinct from one another. Based on the Fornell-Larcker criterion, it was found that the square root of the Average Variance Extracted (AVE) for each construct is greater than its correlation with any other construct in the model. This is evidenced by the square root of the AVE for Business Performance at 0.724, Innovativeness at 0.647, Institutional Support at 0.692, and Market Orientation at 0.635; all these values are higher than the correlation coefficients with other variables in their respective columns.

These results provide the methodological justification that all latent variables in this study possess strong discrimination. Theoretically, the attainment of discriminant validity confirms that the research instrument is capable of clearly distinguishing between the farmers' cognitive capacity (Market Orientation), environmental factors (Institutional Support), and transformation capabilities (Innovativeness) in influencing economic outcomes (Business Performance). With these criteria fulfilled, the measurement model is declared discriminantly valid and eligible for the structural model evaluation and hypothesis testing phase.

Table 2. Validity Test

	Business Performance	Innovativeness	Institutional Support	Market Orientation
BPCP_1	0,711			
BPEP_1	0,724			
BPEP_4	0,738			
INSCD_2			0,669	
INSCD_4			0,667	
INSRD_1			0,699	
INSRD_2			0,788	
INSRD_3			0,665	
INSRD_5			0,655	
INVPI_1		0,741		
INVPI_3		0,541		
INVPI_4		0,673		
INVP_1		0,606		
INVP_2		0,609		
INVP_5		0,691		
MOCOR_1				0,530
MOCOR_2				0,663
MOCOR_4				0,693
MOCOR_5				0,671
MOCOR_7				0,642
MOCO_1				0,516
MOCO_2				0,526

MOCO_3	0,709
MOCO_6	0,663
MOIC_1	0,770
MOIC_2	0,535

Based on the outer loading analysis results presented in Table 2 (Validity Test), the majority of the indicators demonstrate significant values. Indicators for the Business Performance variable exhibit robust loading values, all exceeding 0.711. Although several indicators within the Market Orientation, Institutional Support, and Innovativeness variables fall within the range of 0.516 to 0.699, these indicators were retained. This decision is justified as the overall construct reliability criteria have been fully satisfied.

Table 3. Reliability Test

	Cronbach's Alpha	**rho_A**	**Composite Reliability**	**Average Variance Extracted (AVE)**
Business Performance	0,547	0,548	**0,768**	0,525
Innovativeness	0,719	0,731	**0,810**	0.777
Institutional Support	0,782	0,792	**0,846**	0.753
Market Orientation	0,849	0,860	**0,879**	0.809

The following represents the results of the reliability testing. Reliability tests are conducted to measure the consistency of research instruments in assessing phenomena repeatedly over time (Sekaran, 2016). This testing was performed using SmartPLS 4.0, utilizing two primary parameters: Cronbach's Alpha and Composite Reliability (CR).

The results demonstrate that the variables Market Orientation, Institutional Support, and Innovativeness possess Cronbach's Alpha values above 0.719, indicating excellent internal consistency. Regarding the Business Performance variable, although the Cronbach's Alpha was recorded at 0.547, the reliability requirements were nonetheless satisfied through the Composite Reliability value. Notably, the table indicates that all variables exhibit CR values exceeding 0.70. This study utilizes Composite Reliability as the primary benchmark for reliability. Consequently, it can be concluded that all constructs in this research possess high reliability and are eligible for further analysis.

Table 4. R Square

	R Square	**R Square Adjusted**
Business Performance	0,509	0,503
Innovativeness	0,573	0,569

Table 5. F Square Test

	Business Performance	**Innovativeness**	**Institutional Support**	**Market Orientation**
Business Performance				
Innovativeness	0,038			
Institutional Support	0,092	0,147		
Market Orientation	0,067	**0,293**		

The results of the inner model evaluation indicate that the research model possesses moderate predictive power. Specifically, the independent variables account for 57.3% of the

variance in Innovativeness, while Business Performance exhibits a variance explained of 50.9% (R^2).

The f-square (f^2) test results further confirm that Market Orientation exerts a dominant influence (large effect size) on Innovativeness, with a value of 0.293. In contrast, Institutional Support contributes to the farmers' innovation capacity within the medium effect size category, yielding a value of 0.147.

Table 6. Result Direct Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Innovativeness -> Business Performance	0,209	0,220	0,098	2,138	**0,033**
Institutional Support -> Business Performance	0,310	0,301	0,090	3,436	**0,001**
Institutional Support -> Innovativeness	0,341	0,338	0,065	5,212	**0,000**
Market Orientation -> Business Performance	0,282	0,287	0,081	3,479	**0,001**
Market Orientation -> Innovativeness	0,482	0,491	0,057	8,393	**0,000**

Direct hypothesis testing was conducted to assess the magnitude of influence exerted by independent variables on dependent variables without the presence of an intervening variable. The criteria for hypothesis acceptance in this study require a P-value < 0.05 and a T-statistic > 1.96. Based on the analytical results presented in Table 6, the explanations for each hypothesis are as follows:

H1: The direct relationship analysis demonstrates that Market Orientation has a positive and significant effect on Innovativeness, with a path coefficient (β) of 0.482, a T-statistic of 8.393, and a P-value of 0.000. Consequently, H1 is accepted. This finding indicates that as a farmer's market orientation strengthens (specifically their ability to understand customers and competitors), their desire and capacity to innovate within cocoa farming operations significantly increase.

H2: The results indicate that Institutional Support exerts a positive and significant influence on Innovativeness, with a path coefficient (β) of 0.341, a T-statistic of 5.212, and a P-value of 0.000. Thus, H2 is accepted. This result suggests that external support comprising technical assistance, training, and policy interventions from government agencies and cooperatives effectively triggers innovative behavior among farmers to adopt new production methods.

H3: The analysis shows that Innovativeness has a positive and significant effect on Business Performance, with a path coefficient (β) of 0.209, a T-statistic of 2.138, and a P-value of 0.033. Therefore, H3 is accepted. This proves that innovativeness is a tangible driver for enhancing a farmer's business performance. Farmers who are more innovative in their processes and products tend to achieve superior financial results and business sustainability.

H4: The results demonstrate that Market Orientation has a significant positive direct effect on Business Performance, with a path coefficient (β) of 0.282, a T-statistic of 3.479, and a P-value of 0.001. Accordingly, H4 is accepted. This finding justifies that robust market insights enable farmers to make sound strategic decisions, which directly impacts profitability even in the absence of intermediate innovation.

H5: The testing shows that Institutional Support exerts a significant positive direct influence on Business Performance, with a path coefficient (β) of 0.310, a T-statistic of 3.436, and a P-value of 0.001. Thus, H5 is accepted. This indicates that physical assistance and regulatory support from institutions often provide an immediate impact on business performance, such as through subsidies or expanded market access.

Table 7. Result Indirect Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Innovativeness -> Business Performance					
Institutional Support -> Business Performance	0,071	0,075	0,037	1,913	0,056
Institutional Support -> Innovativeness					
Market Orientation -> Business Performance	0,101	0,108	0,050	2,021	0,044
Market Orientation -> Innovativeness					

Indirect relationship testing was conducted to evaluate the role of Innovativeness as a mediating variable bridging the influence of independent variables on business performance. Based on the Specific Indirect Effects test results via the bootstrapping procedure, the findings are as follows:

H4: The results yield a mediation coefficient of 0.101, with a T-statistic of 2.021 and a P-value of 0.044. Since the P-value is < 0.05, it can be concluded that Innovativeness significantly mediates the influence of Market Orientation on Business Performance. This finding proves that sharp market insights will not yield maximum financial results unless farmers transform them into innovative actions. Innovation serves as the key mechanism that converts a farmer's strategic orientation into tangible economic advantages. Given that the direct relationship between Market Orientation and Business Performance is also significant, the type of mediation observed is Partial Mediation.

H5: The analysis of this path shows a coefficient value of 0.071, with a T-statistic of 1.913 and a P-value of 0.056. Utilizing a 5% significance threshold (α= 0.05), Innovativeness is found to not significantly mediate the influence of Institutional Support on Business Performance. While institutional support independently enhances both innovation and performance, the role of innovation as a "bridge" in this specific relationship is found to be marginal (marginally significant). The P-value of 0.056 indicates that assistance from external agencies (government/cooperatives) often yields a direct impact on the improvement of a farmer's operational performance without necessarily requiring a complex innovation process. This result may also be influenced by the low effect size (f = 0.038) of innovativeness on business performance, which limits the mediating strength of this specific path.

Discussion

The Cognitive Radar: Market Orientation as a Catalyst for Innovation

The acceptance of H1 ($\beta = 0.482$, $p < 0.001$) and H4 ($\beta = 0.282$, $p = 0.001$) confirms that Market Orientation is the most dominant strategic driver in the model. In the context of the 2026 global cocoa price surge, market orientation acts as a "cognitive radar." While many traditional farmers remained passive price-takers, those with high market orientation the ability to generate and disseminate market intelligence were able to decode global quality requirements, such as the demand for fermented beans.

This finding aligns with the Upper Echelons Theory, suggesting that the strategic direction of a farm unit reflects the cognitive flexibility of its sole decision-maker. The high effect size ($f = 0.293$) suggests that market orientation is not merely an asset but a mandatory psychological prerequisite for innovation. Without this "radar," external opportunities are often overlooked, explaining why many farmers remained in economic stagnation despite the record-breaking 10,000 Euro per ton price momentum.

The Institutional Paradox: Support vs. Transformation

The results for H2 ($\beta = 0.341$, $p < 0.001$) and H5 ($\beta = 0.310$, $p = 0.001$) reveal a significant dual impact of Institutional Support. Regulative and cognitive pillars of institutions (government and cooperatives) provide the necessary "toolkit" for farmers. However, a critical novelty arises from the H7 mediation analysis ($p = 0.056$), which found that innovativeness does not significantly bridge the gap between institutional support and financial performance.

This phenomenon indicates an "Implementation Gap" where external aid is primarily utilized for compliance and operational efficiency rather than fostering long-term creative shifts. While government assistance, such as machinery grants or subsidies, improves immediate operational performance, it often fails to trigger a deep-seated culture of innovation. In this context, institutional support functions primarily as an operational "safety net" that provides immediate resource access but lacks the "transformative engine" required to stimulate deeper innovative behavior. Many farmers utilize institutional aid to maintain the status quo rather than experimenting with new value-added processes.

This finding modifies existing institutional theories by suggesting that in developing agribusiness sectors, institutional support acts more as a supportive infrastructure than a direct driver of individual creativity. In contrast, market orientation acts as an internal "strategic radar" that creates a psychological necessity for innovation. Therefore, for institutional support to effectively trigger innovation, farmer development strategies must evolve from simple resource provision toward building cognitive capacity and integrated knowledge infrastructures.

Innovativeness: The "Engine" of Strategic Conversion

The validation of H3 ($\beta = 0.209$, $p = 0.033$) and the partial mediation in H6 ($p= 0.044$) justify the positioning of Innovativeness as a strategic bridge. In a volatile market, routine agricultural activities are no longer sufficient for survival. Innovativeness represents the farmer's dynamic capability to transform passive resources into competitive advantages such as organic cocoa-pod soap production or technical fermentation standardization.

The small effect size ($f^2 = 0.038$) on business performance indicates that while innovation is vital, its financial impact is often constrained by macro-factors like low land productivity (500–600 kg/ha). This suggests that for innovation to yield maximum returns, it must be synchronized with improved technical compliance and internal control.

Synthesis and Theory Modification: The "Cognitive Smallholder"

The significant finding of this research is the conceptualization of the "Cognitive Smallholder." Traditionally, smallholder farmers have been viewed as labor-intensive objects of policy. This study, through the lens of UET, redefines them as autonomous strategic subjects.

The "broken link" in the national cocoa industry is not a lack of resources, but a lack of cognitive conversion. We propose that institutional aid will remain "stagnant" (*mangkrak*) unless it is filtered through the farmer's innovative capability. This study modifies the traditional UET framework by applying it to the micro-SME level of individual farmers, proving that the psychological characteristics of the "top manager" (the farmer) are the ultimate determinants of agribusiness resilience in a globalized market.

CONCLUSIONS

This research provides a comprehensive overview of the dynamics underlying business performance enhancement within smallholder cocoa farming units through the integration of market orientation, institutional support, and innovation capacity. Based on the empirical analysis, several key conclusions are drawn:

First, achieving sustainable business success for cocoa farmers is inextricably linked to the synergy between internal strategic orientations and external stimuli. Market Orientation is proven to be the most dominant driving factor, acting as the primary fuel for a farmer's creativity and innovative behavior. This confirms that a profound understanding of customer needs and competitor movements allows farmers to decode global quality standards and transform market intelligence into high-value economic breakthroughs.

Second, Institutional Support plays a vital role in providing the necessary "toolkit" for the upstream innovation ecosystem. While technical assistance and government policy yield an immediate impact on operational performance, this study reveals a critical nuance: the transformation path from institutional support to financial success through innovation remains marginal ($p = 0.056$). This suggests that while external interventions often result in immediate physical improvements to the farm, they frequently fail to trigger a deep-seated culture of innovation, often leaving provided resources underutilized or "stagnant."

Finally, this study successfully validates the role of Innovativeness as a strategic bridge that ensures the resilience of farming units amidst market volatility. The success of smallholder farmers in gaining a competitive edge depends heavily on their cognitive ability to orchestrate every market opportunity and institutional resource into a distinct, competitive novelty. These findings offer a significant contribution to agribusiness management literature by shifting the paradigm from viewing farmers as mere laborers to recognizing them as autonomous strategic subjects whose cognitive readiness determines the industry's sustainability.

PRACTICAL IMPLICATIONS AND RECOMMENDATIONS

Based on these findings, policy recommendations should shift from conventional physical aid toward strengthening knowledge infrastructure. Governments and stakeholders should prioritize the development of "Farmer Business Schools" that move beyond technical cultivation to include risk management, financial literacy, and market intelligence analysis. Furthermore, institutional arrangements should facilitate real-time access to global market data and community-based product innovation training, such as fermentation standardization and organic waste processing. By focusing on building cognitive capacity rather than just distributing equipment, policymakers can ensure that a farmer's agility in responding to market demands is

supported by an institutional ecosystem capable of converting adaptive capacity into sustainable economic value-added.

REFERENCES

Aidis, R., Estrin, S., & Mickiewicz, T. (2008). Institutions and entrepreneurship development in Russia: A comparative perspective. *Journal of Business Venturing*, *23*(6), 656–672. https://doi.org/10.1016/j.jbusvent.2008.01.005

Alhakimi, W., & Mahmoud, M. (2020). The impact of market orientation on innovativeness: evidence from Yemeni SMEs. *Asia Pacific Journal of Innovation and Entrepreneurship*, *14*(1), 47–59. https://doi.org/10.1108/apjie-08-2019-0060

Amankwah-Amoah, J., Debrah, Y. A., & Nuertey, D. (2018). Institutional Legitimacy, Cross-Border Trade and Institutional Voids: Insights from the Cocoa Industry in Ghana. *Journal of Rural Studies*, *58*, 136–145. https://doi.org/10.1016/j.jrurstud.2018.01.002

BPS. (2024). *Statistik Kakao Indonesia*.

Chen, W. H., Kang, M. P., & Butler, B. (2019). How does top management team composition matter for continual growth? Reinvestigating Penrose's growth theory through the lens of upper echelons theory. *Management Decision*, *57*(1), 41–70. https://doi.org/10.1108/MD-02-2017-0147

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. In *European Business Review* (Vol. 31, Number 1, pp. 2–24). Emerald Group Publishing Ltd. https://doi.org/10.1108/EBR-11-2018-0203

Hair Josephb F. Hair, G. T. M. H. (2017). *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) Third Edition*.

Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons: The Organization as a Reflection of Its Top Managers. In *Source: The Academy of Management Review* (Vol. 9, Number 2).

ICCO. (2024). *Cocoa sustainability initiatives landscape.* Https://Www.Icco.Org/Cocoa-Sustainability-Initiatives-Landscape/.

ICCRI. (2025). *Profil Pusat Penelitian Kopi dan Kakao Indonesia*. Https://Iccri.Net/Profil-Pusat-Penelitian-Kopi-Dan-Kakao-Indonesia/.

Ihinmoyan T, A. S. T. (2011). *Relationship between Market Orientation, Firm Innovativeness and Innovative Performance*.

Kohli, A. K., & Jaworski, B. J. (1990). Market Orientation: The Construct, Research Propositions, and Managerial Implications. In *Source: Journal of Marketing* (Vol. 54, Number 2).

Makanyeza, C., Mabenge, B. K., & Ngorora-Madzimure, G. P. K. (2023). Factors influencing small and medium enterprises' innovativeness: Evidence from manufacturing companies in Harare, Zimbabwe. *Global Business and Organizational Excellence*, *42*(3), 10–23. https://doi.org/10.1002/joe.22180

Manolova, T. S., Eunni Bojidar, R. V, & Gyoshev, S. (2008). *Institutional Environments for Entrepreneurship: Evidence from Emerging Economies in Eastern Europe*.

Nagara G, Muttaqien Andi, Sadam Afian, Dewi C R, & Afra S. (2024). *Manis Pahit Nasib Petani Kakao Indonesia*.

Najafi-Tavani, S., Sharifi, H., & Najafi-Tavani, Z. (2016). Market orientation, marketing capability, and new product performance: The moderating role of absorptive capacity. *Journal of Business Research*, *69*(11), 5059–5064. https://doi.org/10.1016/j.jbusres.2016.04.080

North Douglass C. (2012). Institutions, Institutional Change And Economic Perfomance. *Cambridge University Press*.

OECD. (2014). Guidelines for Collecting and Interpreting Innovation Data, 3rd Edition (Chinese version) Report. *Https://Www.Oecd.Org/Zh/Publications/Oslo-Manual_9789264213081-Zh.Html*.

Saari, U. A., Damberg, S., Schneider, M., Aarikka-Stenroos, L., Herstatt, C., Lanz, M., & Ringle, C. M. (2024). Capabilities for circular economy innovation: Factors leading to product/service innovations in the construction and manufacturing industries. *Journal of Cleaner Production*, *434*. https://doi.org/10.1016/j.jclepro.2023.140295

Sarstedt, M., Hair, J. F., Cheah, J. H., Becker, J. M., & Ringle, C. M. (2019). How to specify, estimate, and validate higher-order constructs in PLS-SEM. *Australasian Marketing Journal*, *27*(3), 197–211. https://doi.org/10.1016/j.ausmj.2019.05.003

Scott, W. R. (1987). The Adolescence of Institutional Theory. In *Source: Administrative Science Quarterly* (Vol. 32, Number 4).

Sekaran. (2016). *An easy way to help students learn, collaborate, and grow*. www.wileypluslearningspace.com

Tham-Agyekum, E. K., Okorley, E. L., Kwarteng, J., Bakang, J. E. A., & Nimoh, F. (2021). Enhancing market orientation of cocoa farmers through farmer business schools: The Ghana cocobod experience. *Asian Journal of Agriculture and Rural Development*, *11*(1), 129–138. https://doi.org/10.18488/journal.ajard.2021.111.129.138

Verbees, H. F. and M. T. G. M. (2004). *Market Orientation, Innovativeness, Product Innovation, and Perfomance in Small Firms*.

Yousaf, S., Anser, M. K., Tariq, M., Sahibzada Jawad, S. U. R., Naushad, S., & Yousaf, Z. (2021). Does technology orientation predict firm performance through firm innovativeness? *World Journal of Entrepreneurship, Management and Sustainable Development*, *17*(1), 140–151. https://doi.org/10.1108/WJEMSD-11-2019-0091

Zhu, Y., Wittmann, X., & Peng, M. W. (2012). Institution-based barriers to innovation in SMEs in China. *Asia Pacific Journal of Management*, *29*(4), 1131–1142. https://doi.org/10.1007/s10490-011-9263-7