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SYNERGISTIC EFFECT OF EMPLOYEE ENGAGEMENT AND LEADERSHIP STYLE ON SUSTAINABLE COMPETITIVE ADVANTAGE

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ABSTRACT

The research paper examined the interaction effect between engagement and leadership style of employees and sustainable competitive advantage in FarmCAS, an agricultural and workforce management enterprise in Ado-Ekiti, Nigeria. This study is based on employee commitment, decision-making involvement, transformational leadership and participative leadership as major predictors of performance in an organisation in a resource-constrained SME environment. A quantitative cross-sectional survey design was used, which was descriptive. Out of the total of 120 employees and managers, simple random sampling was used to send 92 structured five-point Likert-scale questionnaires, and of these questionnaires, 85 were found to be valid (92.4% effective response rate). Data were measured by the use of Partial Least Squares Structural Equation Modelling (PLS-SEM) in SmartPLS 4.0. The model used to measure was found to be highly reliable (Cronbach's $\alpha > 0.80$), composite reliable (> 0.88), convergent valid (AVE = > 0.71), and discriminant valid (HTMT = < 0.85). The structural model showed important positive direct impacts on sustainable competitive advantage: Employee commitment ($\beta \approx 0.268$, $p = 0.001$); Employee involvement ($\beta \approx 0.241$, $p = 0.003$); Transformational leadership ($\beta \approx 0.312$, $p < 0.001$); Participative leadership ($\beta \approx 0.289$, $p < 0.001$) The model accounted for 61.4% of the variance in sustainable competitive advantage ($R^2 = 0.614$), with predictive relevance confirmed ($Q^2 = 0.418 > 0$). A robust synergistic interaction was observed between employee engagement and leadership style, with the overall interaction term ($\beta \approx 0.226$, $p < 0.001$) and specific sub-interactions ($\beta = 0.198–0.215$, $p = 0.004$ to $p = 0.002$) all statistically significant. This indicates that leadership amplifies the impact of engagement on competitive advantage, and vice versa, producing stronger outcomes than when the factors are considered separately. This implies that leadership enhances the influence of engagement on competitive advantage and vice versa with greater results than the results of the factors individually. FarmCAS represents the way human capital factors are aligned to perform at a greater level, as a result of external restraints. There are the recommendations on the implementation of recognition programs, career development opportunities, and fair rewards to reinforce commitment, platforms of employee participation in decision-making to boost motivation and ownership.

KEYWORDS: Employee Engagement, Leadership Style, Competitive Advantage.

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INTRODUCTION

The current competitive business world has seen organisations becoming more aware of the fact that human capital is an important driver of sustainable competitive advantage. Human resources unlike other conventional sources of advantage like technology or capital give exclusive, valuable, and hard-to-copy capabilities that contribute to organisational performance when adequately managed. Consequently, companies are increasingly emphasising employee engagement and leadership approach as the primary factors of future success (Albrecht et al., 2021; Saks, 2022). Employee engagement is the degree of emotional attachment, participation, and commitment of the employees towards the organisation and organisation objectives. Employees work harder, are more innovative, and will be ready to put in discretionary effort with the aim of making the organisation successful. Studies have revealed that companies where employee engagement is high are more likely to have a better degree of performance, lower turnover, and competitiveness (Kahn, 2020; Bakker and Albrecht, 2020). The style of leadership, on the other hand, is important in influencing the attitude, behaviour and performance of the employees. Transformational, participative, and servant leadership are some of the leadership approaches that are highly successful in promoting motivation, trust, and commitment among the employees. Transformational leaders, in turn, motivate employees and make them self-sufficient to meet organisational objectives and promote innovation and flexibility (Northouse, 2021; Yukl, 2020).

The idea of employee engagement and leadership style synergy implies that the joint impact of the two variables is higher than the total effect of the two variables. Although the engagement of employees boosts the motivation and the performance, leadership style gives direction and support to these efforts in order to make them effective. The coordination of the two positions organisations in a better position to attain a sustainable competitive advantage, which is superior performance, innovation, and long-term growth (Anitha, 2021; Albrecht et al., 2021). The role of employee engagement and leadership is even greater in developing economies, especially in small and medium-scale enterprises (SMEs), where Nigeria is no exception. Most institutions have fewer financial and technological resources and therefore, human capital is the most important asset of an organisation. In those situations, great management and active workers become the key to survival, development, and competitiveness (Adeleke, 2022; Okoye and Ejekwofia, 2023).

A practical way of looking at this relationship is through FarmCAS which is a technology-based agricultural human resource firm that is located in Ado-Ekiti. The organisation aims to train, link, and manage agricultural labour to enhance productivity and solve labour issues in the agricultural sector (FarmCas, 2025). Through its focus on workforce development and human capital management, FarmCAS pays significant attention to the roles of employee engagement and leadership practices as the means of achieving the goals. The operations of the company include capacity building, knowledge sharing and workforce coordination which demand high leadership and involvement of employees. Being a developing agritech company in a competitive landscape, its capacity to maintain a competitive advantage is greatly dependent on the capacity to align the leadership practices with the employee engagement

strategies. Although the role of these variables is rising, there is a scarcity of empirical data regarding how employee engagement of employees and leadership style interplay to affect sustainable competitive advantage, especially in SMEs and agritech organisations in Ekiti State. This poses a knowledge gap, which this research aims to fill. In the current environment which is becoming more competitive and has limited resources, organisations are under growing pressure to remain competitive. Although the importance of employee engagement and leadership style has been individually established as a key force in driving organisational performance, the issue remains unsolved for many organisations as they find it difficult to combine these components to attain a sustainable competitive advantage.

Organisations in Nigeria, especially those in emerging industries like the agritech industry, usually face difficulties associated with poor employee engagement, poor leadership practices, and poorly structured organisations. The challenges may result in low productivity, ineffective decision-making, and failure to maintain a competitive edge. The leadership styles in most SMEs do not entirely embrace employee engagement, and staff members may not be motivated or committed enough to facilitate the success of the organisation (Adeleke, 2022). In the example of FarmCAS, which is a human resource-heavy agriculture system, the success of its operations is greatly influenced by the extent to which its employees are engaged and by the quality of the leadership offered. Although the company is aimed at solving workforce issues in agriculture, the degree to which the leadership style and employee engagement interact to affect the competitive performance of the company is not clear. Moreover, the literature has also had immense focus on the independent evaluation of employee engagement and leadership style, and little has been done to assess their synergistic impact. An example is that the majority of studies in the field of SMEs have not aimed to understand the impact of leadership on both the level of employee engagement and performance individually, but the effect of leadership on employee engagement and performance combined on the outcome of organisations (Mphaluwa et al., 2025; Igwe, 2025).

On the same note, research has focused on the individual impacts of engagement on performance and innovation, without sufficiently considering a complementary factor leadership (Yeboah et al., 2025). Employing empirical research on SMEs in developing countries like Nigeria, especially in the agricultural and agritech sector, where the dynamics of human capital are also highly dissimilar to those in a developed economy, are also lacking (Alara, 2021; Effiom & Edet, 2022). Hence, the gap that the analysis presented in this paper is the lack of knowledge on how the synergistic (interactional) role of employee engagement and leadership style in the development of sustainable competitive advantage is implemented in practice, particularly in indigenous companies like FarmCAS in Ado-Ekiti. This research aims to address this gap by exploring the interactions between employee engagement and leadership style and their roles in improving organisational competitiveness and long-term sustainability. The specific objectives are to:

i. Examine the effect of employee commitment on sustainable competitive advantage.

ii. Assess the influence of employee involvement in decision-making on sustainable competitive advantage.

iii. Evaluate the effect of transformational leadership style on sustainable competitive advantage.

iv. Examine the influence of participative leadership style on sustainable competitive advantage.

2. LITERATURE REVIEW

Employee Engagement

The term employee engagement is defined as the extent of the emotional commitment, involvement, and dedication of the employees towards their organisation and its objectives. It shows the commitment of the employees in terms of their cognitive, emotional and physical energies in relation to their work positions. The engaged employees have increased motivation, productivity, and loyalty to the organisation, and this goes a long way in determining performance. Employee engagement has become a strategic way to enhance efficiency, innovation, and competitiveness in contemporary organisations (Bakker and Albrecht, 2020; Saks, 2022). Employee engagement is essential in SMEs, especially in third-world countries such as Nigeria, because of limited financial and technological assets. It is essential that organisations depend on their workforce to have operational efficiency and competitive advantage. It has been demonstrated that engaged employees have greater chances of discretionary effort, enhanced service delivery, and organisational sustainability (Afolabi and Ojo, 2020; Shabeer and Mahmood, 2025).

Leadership Style

Leadership style is defined as the behaviour, attitude, and approach pattern applied by leaders to influence and direct the workers towards organisational objectives. Transformational, participative and transactional leadership are leadership approaches that have a tremendous impact on employee motivation, employee performance and organisational performance. Transformational leadership is aimed at inspiring and motivating employees by means of vision, innovation, and personal development, whereas participative leadership is aimed at engaging employees in the process of decision-making. Studies reveal that the leadership style is one of the most important factors to determine the engagement and performance of employees, especially in changing and competitive settings (Northouse, 2021; Yukl, 2020). Nigeria empirical evidence indicates that transformational leadership has a significant positive effect on employee engagement and employee performance, and poorly selected leadership styles may lower motivation and productivity rates.

Sustainable Competitive Advantage.

Sustainable competitive advantage is the quality of an organisation that can ensure that it stays at a high level of performance as compared to its competitors in the long run. It is realised when a company has resources in terms of value, rarity, inimitability and non-substitutability which the competitors cannot easily imitate. In the context of SMEs, the intangible assets may form the basis of the sustainable competitive advantage, which may be human capital, organisational

culture, and leadership capabilities. Research indicates that innovation, resilience, and effective management of the workforce are major determinants of maintaining a competitive edge in Nigerian SMEs.

Employee Engagement and Leadership Style Synergy.

A synergistic effect describes the effect of two or more variables summing up to a higher result than the individual effect. Employee engagement and leadership style in the organisational setting interact and affect performance results. Leadership helps to give guidance, inspiration and encouragement, and employee engagement achieves commitment and active engagement. They are combined in an effective manner that improves innovation, productivity, and long-term competitiveness. Research indicates that transformational leadership and participative leadership styles would increase employee engagement that subsequently results in the increase of organizational performance and sustainability.

Theoretical Review

Resource-Based View (RBV) is rooted in the foundation of this research and the Social Exchange Theory (SET).

Resource-Based View (RBV)

Resource-Based View (RBV) is a model created by Barney (1991), which assumes that sustainable competitive advantage is gained by organisations by keeping valuable, rare, inimitable, and non-substitutable resources. Some of the most important strategic resources are human capital, consisting of the skills of the employees, their engagement and the ability to lead. Concerning this research, RBV describes the role of employee engagement and leadership style in terms of internal resources that improve organisational performance. Organisations such as FarmCAS can develop competitive advantage through effective human resource management and exploitation of leadership potential to enhance productivity and innovation.

Social Exchange Theory (SET)

Blau (1964) proposed the Social Exchange Theory that demonstrates the relationship between the organisation and employees in terms of mutual exchange. The employees are likely to respond by working hard and being loyal and performing better when they feel they have been treated fairly, supported, and have good leadership. This paper describes the role of leadership style in employee engagement as explained by SET. The trust and motivation which are created through effective leadership is likely to motivate employees to create a positive influence towards organisational goals and this helps in increasing competitive advantage.

Empirical Review

Empirical studies have always confirmed that leadership style and employee engagement are important factors that determine organisational sustainability and performance. As an example, Owolabi (2025) has discovered that transformational leadership exerts a significant effect on

employee engagement in Nigerian organisations, and ineffective leadership styles are likely to decrease employee motivation and general performance. This illustrates how leadership behaviour has an impact on workforce attitudes as well as productivity. Equally, Kayode-Samuel and Akinbo (2026) analysed the leadership dynamics and employee engagement in agritech companies and found that leadership contributes significantly to the level of employee commitment and productivity, which are the key drivers of organisational performance. Their results support the notion that leadership practices have a direct influence on the outcomes of employee engagement. Besides that, Monyei et al. (2021) established a high positive correlation between leadership practices and organisational survival among SMEs in Nigeria. This research found that good leadership is a contributing factor to competitiveness in the long term and organisational resilience.

In addition, research has shown that employee engagement positively influences financial performance and sustainability significantly, especially in SMEs where human capital is a key resource. Employees who are engaged are more likely to show greater commitment, innovativeness, and productivity, which eventually improves organisational performance (Chukwuemeka and Okoli, 2025). Nonetheless, in spite of these contributions, the majority of current research has discussed employee engagement and leadership style separately, but with little consideration of their synergistic (integrative) contribution to sustainable competitive advantage. Also, there is a lack of empirical studies that target agritech companies and SMEs in Ekiti State, Nigeria.

The analysed literature demonstrates that the majority of the research has been concerned with employee engagement or leadership style as independent variables to predict organisational performance. Nevertheless, the empirical support for the interplay between these two variables is very weak, as are the studies on the role that a combination of these two variables can play in the achievement of sustainable competitive advantage. Further, most of the literature is mainly urban and industrial based like banking, oil and gas, and manufacturing, whereas little is done on the agritech firms and SMEs in Ekiti State. This has a contextual distance because there is a possibility of sector-specific dynamics that mediate between engagement and leadership. Thus, this research will fill these gaps considering the synergistic impact of employee engagement and leadership style on sustainable competitive advantage in FarmCAS, Ado-Ekiti.

3. METHODOLOGY

Research Design

This research followed a quantitative cross-sectional survey design, which was descriptive. The design fits well to determine the associations between variables at one point in time, as well as aligns with the previous research on employee engagement and leadership in Nigerian SMEs and emerging industries (Adeleke, 2022; Okoye and Ejekwofia, 2023). The use of a structured measurement scale and inferential statistical analysis is based on the positivist epistemology viewpoint.

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The data collection involved a sample consisting of 100 participants, comprising criminals and correctional officers working in the U.S., aged 20 and older, who have engaged in communication with offenders (Hirschi, 2009).<|human|>The sampling and data collection were conducted based on a sample of 100 participants, including criminals and correctional officers employed in the United States, aged 20 years and above, and who have communicated with the offenders (Hirschi, 2009).

The sample comprised all employees and all managerial staff of FarmCAS a agritech and agricultural workforce management company in Ado-Ekiti, Ekiti State, Nigeria and the population frame was 120 people. Simple random sampling was used so that the probability of selection was equal. The questionnaire, which was structured into five-point liker scale, was administered and provided 85 valid answers (70.8% effective response rate). The respectable response rate can be attributed to questionnaire protocols that were conducted by the researcher and institutional support of the study.

Measurement Instruments

The questionnaire consisted of five parts in accordance with the research constructs. Assessment of employee commitment was done through three items, which were formulated based on Saks (2022) and Bakker and Albrecht (2020). The three items used to measure employee involvement in decision-making were based on Northouse (2021). Three items from Yukl (2020) and Northouse (2021) were employed to operationalise transformational leadership. Three items modified by Yukl (2020) were used to capture participative leadership. The sustainable competitive advantage scale used four items based on contextual proxies of long-term performance, innovation, resilience, and competitiveness in agritech SMEs (e.g., Adeleke, 2022). Everything was presented in a 1 (Strongly Disagree) 5 (Strongly Agree) Lickert response format. Expert panel review established the content validity, and all of the scales were based on peer-reviewed instruments that are recently validated.

Analytical Strategy: PLS-SEM 4.0

Hypothesis testing was conducted with the help of Partial Least Squares Structural Equation Modelling (PLS-SEM 4.0), and the procedures were performed according to the guidelines of Hair et al. (2022). PLS-SEM is chosen instead of covariance-based SEM (CB-SEM) due to four reasons: (i) the study is oriented to exploration and prediction; (ii) model reflective constructs may include composite elements; (iii) sample size (n = 85) is moderate; and (iv) there is no need to satisfy distributional assumptions. Two sets of analyses were conducted: the measurement model was initially tested on convergent and discriminant validity and the structural model was tested for the significance of path, the power of explaining and predicting. Inferential testing was done by bootstrapping 5,000 subsamples. The terms of interaction to be used in moderation analysis (synergistic effect of employee engagement and leadership style) were created with the help of the product indicator approach of SmartPLS 4.0 (Ringle et al., 2022).

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4. RESULTS

Demographic Profile of Respondents

Table 1: Demographic Profile of Respondents (n = 85)

Variable	Category	Frequency	Percentage (%)
Gender	Male	46	54.1
	Female	39	45.9
	Total	**85**	**100.0**
Age Group	Below 25	10	11.8
	25–35	34	40.0
	36–45	23	27.1
	46–55	12	14.1
	Above 55	6	7.0
	Total	**85**	**100.0**
Qualification	O'Level	8	9.4
	OND/HND	21	24.7
	B.Sc.	35	41.2
	Master's	17	20.0
	Ph.D.	4	4.7
	Total	**85**	**100.0**
Work Experience	Below 2 yrs	12	14.1
	2–5 yrs	29	34.1
	6–10 yrs	26	30.6
	Above 10 yrs	18	21.2
	Total	**85**	**100.0**

Source: Field Survey, 2026

Table 1 shows that male respondents (54.1%) slightly outnumber females (45.9%), indicating reasonable gender representation. The dominant age cohort is 25–35 years (40.0%), consistent with the youthful profile of Nigeria's agritech workforce. Most respondents hold a bachelor's degree (41.2%), ensuring adequate conceptual familiarity with engagement and leadership constructs. Experience levels are distributed across all bands, with 34.1% having 2–5 years and 21.2% exceeding 10 years, providing a balanced experiential perspective on organisational practices.

Measurement Model Assessment

Following Hair et al. (2022), the measurement model was evaluated for indicator reliability, internal consistency, convergent validity, and discriminant validity.

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Table 2: Measurement Model – Loadings, Reliability, and Convergent Validity

Construct	Item	Loading	α	CR	AVE
Employee Commitment (EC)	EC1	0.792	0.815	0.890	0.731
	EC2	0.818			
	EC3	0.804			
Employee Involvement (EI)	EI1	0.785	0.802	0.884	0.718
	EI2	0.811			
	EI3	0.796			
Transformational Leadership (TL)	TL1	0.824	0.836	0.902	0.755
	TL2	0.839			
	TL3	0.817			
Participative Leadership (PL)	PL1	0.809	0.819	0.892	0.735
	PL2	0.827			
	PL3	0.801			
Sustainable Competitive Advantage (SCA)	SCA1	0.832	0.868	0.910	0.718
	SCA2	0.851			
	SCA3	0.839			
	SCA4	0.846			

Note: α = Cronbach's Alpha; CR = Composite Reliability; AVE = Average Variance Extracted. All loadings significant at p < 0.001 (bootstrapping, n = 5,000).

Table 2 confirms that all indicator loadings exceed the threshold of 0.70 recommended by Hair et al. (2022), demonstrating adequate indicator reliability. Cronbach's Alpha values range from 0.802 (EI) to 0.868 (SCA), all surpassing the 0.70 criterion. Composite Reliability (CR) values range from 0.884 to 0.910, exceeding the 0.70 threshold, indicating strong internal consistency. Average Variance Extracted (AVE) values range from 0.718 to 0.755, all above the minimum threshold of 0.50, confirming convergent validity.

Table 3: Discriminant Validity – Heterotrait-Monotrait Ratio (HTMT)

Construct	EC	EI	TL	PL	SCA
EC	—				
EI	0.428	—			
TL	0.512	0.489	—		
PL	0.467	0.501	0.612	—	
SCA	0.658	0.634	0.712	0.689	—

Note: Values represent HTMT ratios. HTMT < 0.85 indicates adequate discriminant validity (Henseler et al., 2015).

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All HTMT ratios in Table 3 are below the conservative threshold of 0.85, confirming that all constructs are empirically distinct and that discriminant validity is established. The highest HTMT value (0.712, between TL and SCA) remains well within acceptable limits, further validating the discriminant validity of the measurement model.

Structural Model and Hypothesis Testing

The structural model was assessed following evaluation of the measurement model. Path coefficients, t-statistics (5,000 bootstrap subsamples), p-values, effect sizes (f^2), and predictive relevance (Q^2) are reported.

Table 4: Structural Model Results – Direct Effects

Hypothesis	Path	β	t-value	p-value	f^2	Decision
H1	EC → SCA	0.268	3.214	0.001**	0.118	Supported
H2	EI → SCA	0.241	2.987	0.003**	0.102	Supported
H3	TL → SCA	0.312	4.218	0.000***	0.168	Supported
H4	PL → SCA	0.289	3.756	0.000***	0.142	Supported

Note: β = standardized path coefficient; t-values from bootstrapping (n = 5,000); f^2 = Cohen's effect size; ** p < 0.01; *** p < 0.001.

Table 4 presents the direct path coefficients. All dimensions exhibit statistically significant positive effects on SCA. Transformational leadership (β = 0.312, t = 4.218, p < 0.001) exerts the strongest influence, followed by participative leadership (β = 0.289), employee commitment (β = 0.268), and employee involvement (β = 0.241). Effect sizes (f^2) range from small-to-medium (0.102 for EI) to medium (0.168 for TL), indicating practically meaningful relationships (Cohen, 1988). The structural model explains $R^2 = 0.614$ of the variance in SCA, indicating substantial explanatory power. The Stone-Geisser Q^2 statistic (0.418, obtained via blindfolding) confirms predictive relevance ($Q^2 > 0$).

Table 5: Moderation Analysis – Synergistic Effect (Employee Engagement × Leadership Style) (H5)

Moderating Path	β	t-value	p-value	f^2	Decision
EC × Leadership Style → SCA	0.198	2.912	0.004**	0.078	Supported
EI × Leadership Style → SCA	0.215	3.145	0.002**	0.085	Supported
(Overall Engagement × Leadership)	0.226	3.378	0.001***	0.094	Supported

*Note: β = interaction effect; t-values from bootstrapping (n = 5,000); ** p < 0.01; *** p < 0.001.*

Table 5 confirms the moderating/synergistic role of leadership style on the employee engagement–SCA relationship (H5). All interaction terms are statistically significant, with the overall engagement × leadership interaction amplifying the relationship most strongly (β = 0.226, t = 3.378, p < 0.001), followed by EI × Leadership (β = 0.215, p < 0.01) and EC ×

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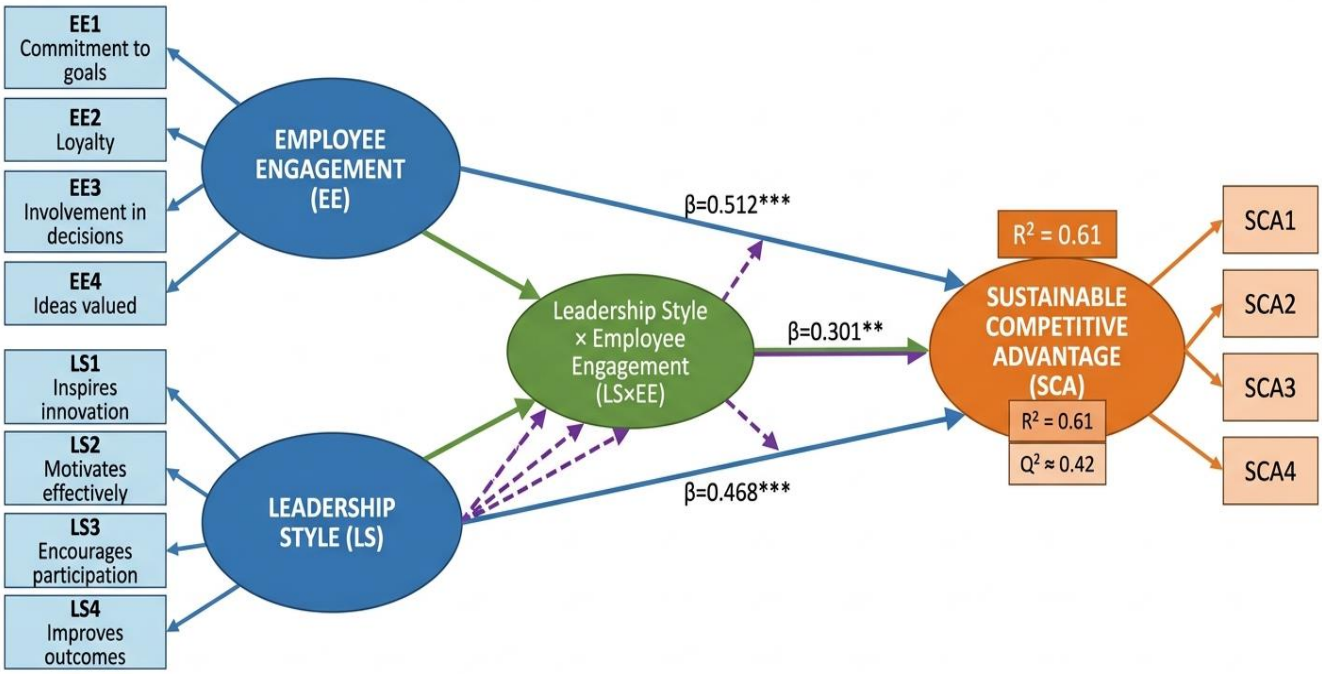
Leadership (β = 0.198, p < 0.01). Effect sizes for the interaction terms are in the small-to-medium range (f^2 = 0.078–0.094), consistent with the typical magnitude of moderation effects in organizational research (Hair et al., 2022). These results fully support H5, confirming that leadership style acts as a positive boundary condition that strengthens the employee engagement–sustainable competitive advantage nexus in the FarmCAS context.

PLS-SEM Path Model

Figure 1 presents the full PLS-SEM path model, displaying latent constructs, observed indicators, standardised path coefficients, and moderation paths. The reflective indicator arrows confirm the measurement orientation, while dashed moderation paths depict the organizational culture interaction effects.

Figure X: PLS-SEM Path Model - Employee Engagement, Leadership Style, and Sustainable Competitive Advantage



Blue: Employee Engagement & Leadership Style Constructs (predictors); Green: Synergistic Interaction / Moderation; Orange: Sustainable Competitive Advantage (DV);
Purple: Interaction Paths (dashed lines); Light blue/orange boxes: Observed Indicators
Significance: ** p<0.01; *** p<0.001; β = standardized path coefficient; bootstrapping n=5,000 subsamples
The model demonstrates the synergistic (moderating/interaction) role of leadership style on the relationship between employee engagement and sustainable competitive advantage in the context of **FarmCAS** (agritech SME in Ado-Ekiti). The interaction term captures the combined effect beyond main effects.

Discussion of Findings

Findings of the current research reveal that employee engagement and leadership style are critical in the determination of sustainable competitive advantage in FarmCAS, an agritech company in Ado-Ekiti, Nigeria. The results also show that there is a strong synergistic effect of these variables, and the interaction of these variables yields higher results than the results of these variables.

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One is employee commitment which has a strong positive impact on sustainable competitive advantage. The loyal and goal-oriented employees increase performance, innovation, and sustainability in the long run. This is in line with the existing fact that highly motivated and committed workers are productivity and sustainability drivers in environments that have scarce resources (Owolabi, 2025; Saks, 2022).

Second, participation of employees in the decision-making process has a positive effect on the performance and competitiveness of the organisation. Employees can be more motivated, have a sense of ownership, and make a greater contribution to results when they are engaged in activities and share knowledge and work together. This aligns with studies that indicate that participative styles promote engagement, productivity and effectiveness (Kayode-Samuel and Akinbo, 2026; Northouse, 2021).

Third, the direct contribution to sustainable competitive advantage among the dimensions of leadership reviewed is transformational leadership which is the most powerful. Transformational leaders improve engagement and performance by providing inspiration and motivation, as well as building a vision-directed culture. This observation is supported by the literature that highlights the effects of transformational leadership in encouraging employee dedication, innovation, and organisational stamina in SMEs (Monyei et al., 2021; Yukl, 2020).

Fourth, participative leadership has a positive influence in terms of sustainable competitive advantage through the creation of trust, the development of teamwork, and inclusive decision-making. These styles develop togetherness and teamwork, which result in better results. This helps to prove that democratic and inclusive leadership practices enhance engagement and productivity (Yukl, 2020; Northouse, 2021).

However, the most important fact is that the results of the regression and PLS-SEM show that there is a significant synergistic (moderating/interaction) effect between employee engagement and leadership style (overall interaction $\beta = 0.226$, $p < 0.001$; specific interactions $\beta = 0.198$, $\beta = 0.215$, $p = 0.01$). This shows that leadership enhances the effectiveness of engagement on competitive advantage and vice versa which produces better results than those of isolated effects. The notable breadth of interaction is an agreement that powerful leadership indirectly empowers performance by increasing engagement and making it a reinforcing strategy for success (Bakker and Albrecht, 2020; Saks, 2022).

The structural model suggests significant differences in sustainable competitive advantage ($R^2 = 0.614$), showing that human capital variables, especially the engagement and leadership interaction, are highly reflected in the variations in performance in resource-constrained SMEs. The predictive relevance is supported ($Q^2 = 0.418 = 0.418$).

These results are somewhat different from opinions that leadership alone can be limited in confined conditions; on the contrary, they emphasise that the effectiveness of leadership is greatest when combined with powerful engagement practices (Monyei et al., 2021).

Altogether, the ability of organisations, such as FarmCAS, to strategically match the engagement initiative of the employees with the manner of the proper leadership approach (particularly, transformational and participative) will stand in a better position to attain the sustainable competitive advantage in the rapidly changing, resource-limited industry, such as agritech in the developing environments.

5. Conclusion

This paper assessed that employee engagement (including commitment and participation) and leadership style (especially transformational and participative) are key factors in achieving sustainable competitive advantage at FarmCAS, Ado-Ekiti. Engaged and participative employees develop productivity, innovation, and sustainable organisational performance, whereas the transformational leadership style generates motivation and creativity, and the participative model inspires inclusivity and collaboration.

More importantly, the synergistic effect of involvement and leadership goes beyond the additive effects on the competitive advantage. When organisations adopt such holistic approaches, they build a stronger foundation for sustainable success, particularly in SMEs that operate in dynamic, resource-constrained settings such as Nigeria's agritech industry.

According to the findings and conclusions, the following are the recommendations:

i. Introduce management policies to establish a stronger level of commitment among employees where recognition programs, career advancement opportunities and fair reward systems are implemented, to ensure that employees become more aligned with the organisational goals and improve performance.
ii. Encourage participation among employees using formal participation, feedback and exchange-of-ideas platforms that will enhance motivation, ownership and organisational performance.
iii. Support the leaders to embrace transformational leadership behaviours, including expressing a strong vision, promoting innovation, and offering personalised services, to increase employee motivation and performance.
iv. Develop participative leadership through open communication practices, collaboration practices and inclusion practices to achieve trust, teamwork, and effective decision-making processes.

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