

Green employee motivation, strategic orientation and competitive advantage of agricultural enterprises: Basis for sustainable management framework

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Abstract

In today's increasingly competitive and environmentally conscious business landscape, organizations are seeking sustainable strategies to differentiate themselves and attract top talent. This research explores the interconnectedness of green employee motivation, strategic orientation, and competitive advantage. By examining how these variables influence each other, this dissertation paper provides valuable insights for organizations seeking to foster a sustainable and competitive business environment. Through a survey of 400 agricultural employees from top five leading agricultural enterprises in Henan Province, the study found a strong to very strong direct relationship between the green employee motivation, and the sub-variables of strategic orientation and competitive advantage. At the same time, there is a strong direct relationship between the sub-variable of strategic orientation and competitive advantage. Findings show a strong relationship between these three variables, therefore, it suggests that organizations that prioritize green employee motivation and align their strategic orientation with sustainability goals are more likely to achieve a competitive advantage. This can lead to improved financial performance, enhanced reputation, and a more sustainable and fulfilling workplace for employees.

Keywords: green employee motivation, strategic orientation, competitive advantage, stakeholder engagement framework

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1. Introduction

The agricultural sector faces unique challenges in integrating sustainable practices due to its direct interaction with natural resources and environmental systems. For agricultural enterprises, particularly those led by middle and senior managers, the adoption of green practices is crucial for long-term viability and competitiveness. However, the relationship among green employee motivation, strategic orientation, and competitive advantage in this context remains under-explored. Understanding how these factors interplay can provide valuable insights for enhancing sustainability and competitive positioning in agricultural enterprises.

Green employee motivation refers to the intrinsic and extrinsic factors that drive managers and employees to engage in environmentally sustainable practices. In agricultural enterprises, this motivation can be influenced by personal environmental values, organizational culture, regulatory requirements, and market pressures. Motivated managers are essential for implementing effective green practices, which can lead to improved environmental and operational performance (Rana et al.,2020). Strategic orientation in agricultural enterprises involves the long-term direction and scope of the organization, focusing on sustainable practices that align with environmental stewardship and economic goals. A green strategic orientation includes the adoption of sustainable farming practices, resource-efficient technologies, and innovative solutions that reduce environmental impact while enhancing productivity and profitability (Kraus et al., 2020). Competitive advantage in the agricultural sector refers to the attributes that allow an enterprise to outperform its competitors. This can be achieved through sustainable practices that enhance brand reputation, ensure compliance with environmental regulations, and improve operational efficiency. Agricultural enterprises with a strong commitment to sustainability can differentiate themselves in the market, leading to increased customer loyalty and market share (Porter et al.,2019).

While existing literature has explored the individual impacts of green employee motivation and strategic orientation on organizational performance, a comprehensive understanding of their synergistic effects, particularly in the context of agricultural enterprises, remains limited. Moreover, a practical sustainability management framework that incorporates these elements is still under development. The global agricultural sector faces increasing pressure to adopt sustainable practices. To address this challenge, agricultural enterprises must integrate environmental considerations into their core business strategies. Green employee motivation and strategic orientation are crucial elements in achieving this goal. This research aims to investigate the intricate relationship between these factors and competitive advantage, ultimately providing a foundation for a robust sustainability management framework.

Objectives of the Study - The study aims to determine the relationship of green employee motivation, strategic orientation and competitive advantage to develop a well-designed stakeholder framework that can help organizations build trust, strengthen relationships, and achieve long-term success in a sustainable and competitive environment. Specifically, it seeks to determine the green employee motivation in terms of economic incentives, non-financial incentives, and training and development; determine the strategic orientation in terms of innovation, market, and social responsibility orientation; assess the competitive advantage in terms of technology, brand, and market advantage; determine the significant relationship of green employee motivation, strategic orientation and competitive advantage; and to develop the stakeholder engagement framework for leading agricultural enterprises in Henan province.

2. Methods

Research Design - This study employed a descriptive research design to investigate the relationship among green employee motivation, strategic orientation, and competitive advantage among middle and senior managers of leading agricultural enterprises in Henan Province.

Participants of the Study - The study focused on employees of the top five leading agricultural enterprises in Henan Province, recognizing their pivotal role in influencing organizational strategies and outcomes. To ensure a representative sample, a stratified random sampling technique was employed. This method involved dividing the population of employees into strata based on factors such as job role, department, and tenure. Subsequently, a random sample of 400 questionnaires was distributed across these strata, guaranteeing that the sample accurately reflects the population's diversity. This substantial sample size enhanced the reliability and generalizability of the findings, enabling robust statistical analysis and meaningful conclusions.

Data Gathering Instrument - The primary instrument for data collection was a self-made questionnaire, designed to measure green employee motivation, strategic orientation, and competitive advantage. The questionnaire utilized a 4-point Likert scale, ranging from "strongly disagree" to "strongly agree," to capture the respondents' perceptions and attitudes effectively. The Likert scale was chosen for its simplicity and ability to provide nuanced insights into the participants' opinions. The questionnaire underwent the validation process and were subjected to reliability test.

Table 1
Test of Reliability Result

Variable	Cronbach's Alpha	Remarks
Green Employee Motivation		
Economic Incentives	0.856	Good
Non-financial Incentives	0.879	Good
Training and Development	0.939	Excellent
Strategic Orientation		
Innovation Orientation	0.909	Excellent
Market Orientation	0.910	Excellent
Social Responsibility Orientation	0.946	Excellent
Competitive Advantage		
Technological Advantage	0.917	Excellent
Brand Advantage	0.924	Excellent
Market Advantage	0.902	Excellent

Legend: George and Mallery (2003) provided the ff rule of thumb: ≥ 0.90 = Excellent; ≥ 0.80 = Good; ≥ 0.70 = Acceptable; ≥ 0.60 = Questionable; ≥ 0.50 = Poor; < 0.50 = Unacceptable

Data Gathering Procedure - The data gathering procedure involved the distribution of questionnaires to the target group through a combination of field surveys and the Internet. This mixed-mode approach was utilized to ensure broader coverage and higher response rates by catering to different preferences and logistical considerations of the participants. Field Survey: Questionnaires were distributed in person to employees at their workplaces, allowing for direct engagement and immediate feedback. This method is particularly effective in reaching participants who may have limited access to the Internet or prefer face-to-face interaction. Internet Survey: An online version of the questionnaire was also distributed via email and professional networks, leveraging digital platforms to reach a wider audience efficiently. Online surveys offer convenience and flexibility for participants to complete the questionnaire at their own pace and convenience. Upon collection, the data were compiled and prepared for analysis. The primary analytical method used was correlation analysis, which assessed the relationships between green employee motivation, strategic orientation, and competitive advantage. This analysis identified the strength and direction of these relationships, providing insights into how these variables interact and influence each other.

Data Analysis - Weighted mean and rank were used to determine the green employee motivation in terms of economic incentives, non-financial incentives, and training and development; strategic orientation in terms of

innovation orientation, market orientation, and social responsibility orientation; competitive advantage in terms of technological advantage, brand advantage, and market advantage. The result of Shapiro-Wilk Test showed that p-values of all variables were less than 0.05 which means that the data set is not normally distributed. Therefore, Spearman rho was used to test the significant relationship as part of the non-parametric tests. All analyzes were performed using SPSS version 28.

Ethical Considerations - Ethical considerations were taken into account before the research work was carried out. Before the commencement of the questionnaire, it was made clear to the respondents that the survey was to be used for academic research only in order to maintain the quality and integrity of the questionnaire returned. The researcher also sought the consent of the respondents' business leaders through letters and correspondence. Also, the target respondents answered the questionnaires in an anonymous manner online. This also fully ensured the confidentiality and anonymity of the target respondents. Finally, the dignity and privacy of the target respondents were protected. All information in the questionnaire was kept strictly confidential to fully protect the privacy of the respondents.

3. Result and discussion

Table 2

Summary Table on Green Employee Motivation

Key Result Areas	Composite Mean	VI	Rank
Economic Incentives	2.89	Agree	1
Non-financial Incentives	2.84	Agree	2.5
Training and Development	2.84	Agree	2.5
Grand Composite Mean	2.86	Agree	

Legend: 3.50-4.00=Strongly Agree; 2.50-3.49=Agree; 1.50-2.49=Disagree; 1.00-1.49=Strongly Disagree

Table 2 present the summary table on green employee motivation, the grand composite mean of 2.86 indicates that employees generally perceive their company's efforts to motivate them in green initiatives as positive. Economic incentives, such as bonuses or salary increases, are perceived as the most motivating factor, with a composite mean of 2.89 and a rank of 1. Both Non-financial Incentives (2.84) and Training and Development (2.84) have the same composite mean and rank equally in terms of employee motivation.

Employees are more likely to be motivated by direct financial rewards. This suggests that organizations should consider incorporating economic incentives into their green initiatives to effectively engage employees. When employees feel valued and recognized for their efforts to protect the environment, they are more likely to be motivated and engaged in their work. Employees who feel that their contributions to sustainability are valued are more likely to be satisfied with their jobs and perform at a higher level. By promoting sustainability and recognizing employees' contributions, organizations can create a more positive and supportive work environment. Combining financial incentives with other motivational strategies can enhance their effectiveness: For example, pairing financial rewards with recognition, training, or opportunities for professional development can create a more comprehensive and engaging approach to employee motivation. While economic incentives are highly valued, non-financial rewards like recognition or flexible work arrangements, along with targeted training and development, also play a significant role in motivating employees.

Deci et al. (2000) meta-analysis delved into the complex relationship between intrinsic motivation and extrinsic rewards, particularly focusing on financial incentives. The study aimed to understand how external rewards, like money, can influence individuals' intrinsic motivation to engage in pro-social behavior. The study confirms the "over justification effect," where introducing extrinsic rewards for intrinsically motivated behaviors can undermine intrinsic motivation. This means that when people are offered external rewards for doing something they already enjoy, they may start to view the activity as a chore rather than something they find personally fulfilling. The researchers emphasize that the impact of extrinsic rewards on intrinsic motivation depends on various factors, including the nature of the task, the individual's personality, and the cultural context. The study supports Cognitive Evaluation Theory, which suggests that extrinsic rewards can either enhance or

diminish intrinsic motivation depending on how they are perceived. If rewards are seen as controlling or coercive, they can decrease intrinsic motivation. However, if they are perceived as informational or autonomy-supportive, they can enhance it. Organizations and individuals should be cautious about using extrinsic rewards indiscriminately.

Understanding the over justification effect and Cognitive Evaluation Theory can help in designing reward systems that support rather than undermine intrinsic motivation. To foster sustainable pro-social behavior, it's essential to create environments that nurture intrinsic motivation by providing autonomy, competence, and relatedness. Organizations should strive for a balanced approach to employee motivation, combining both economic and non-financial incentives with relevant training and development opportunities. It's important to recognize that individual preferences for motivation may vary. Some employees might prioritize economic incentives, while others might value non-financial rewards or professional development more. Overall, the results suggest that a combination of economic, non-financial, and training incentives is likely most effective in motivating employees towards green initiatives. Organizations can use this information to tailor their employee motivation strategies to meet the specific needs and preferences of their workforce.

Table 3
Summary Table on Strategic Orientation

Key Result Areas	Composite Mean	VI	Rank
Innovation Orientation	2.82	Agree	3
Market Orientation	2.83	Agree	2
Social Responsibility Orientation	2.88	Agree	1
Grand Composite Mean	2.84	Agree	

Legend:3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49-Disagree;1.00-1.49=Strongly Disagree

This table presents the results of a survey or study that assessed the strategic orientation of an organization or group. The strategic orientation is categorized into three dimensions: Innovation Orientation, Market Orientation, and Social Responsibility Orientation. The organization or group demonstrates a moderate level of strategic orientation overall, with a Grand Composite Mean of 2.84. This suggests that the organization is moderately focused on innovation, market, and social responsibility.

Social Responsibility Orientation is the most prominent dimension, with a composite mean of 2.88, indicating a moderate to strong focus on social responsibility. Market Orientation and Innovation Orientation have similar composite means of 2.83 and 2.82, respectively, suggesting a moderate level of focus on both market and innovation. Given the high ranking of Social Responsibility Orientation, the organization could further strengthen its commitment to social and environmental sustainability. This could involve implementing more sustainable practices, engaging in community initiatives, or adopting ethical sourcing policies.

While the organization has a moderate focus on innovation and market orientation, it might benefit from further exploring opportunities for innovation and market expansion. This could involve investing in research and development, developing new products or services, or targeting new markets. Popović et al.,(2018) in their study confirmed that small firms' long-term strategic approach toward CSR is critical in driving their responsible practices toward environment, customer, community, employees, and suppliers which in turn impact small firms' financial performance and better reputation building. Their findings suggested that customers' and employees' interests are strategic imperatives that small firms should address in enhancing their financial performance and building better reputation in the community.

Table 4
Summary Table on Competitive Advantage

Key Result Areas	Composite Mean	VI	Rank
Technological Advantage	2.78	Agree	2
Brand Advantage	2.77	Agree	3
Market Advantage	2.82	Agree	1
Grand Composite Mean	2.79	Agree	

Legend:3.50-4.00=Strongly Agree;2.50-3.49=Agree;1.50-2.49-Disagree;1.00-1.49=Strongly Disagree

Table 4 presents a summary of an organization's perceived competitive advantage in three key areas: Technological Advantage, Brand Advantage, and Market Advantage. The organization demonstrates a moderate level of competitive advantage with a Grand Composite Mean of 2.79. The organization is perceived to have the strongest competitive advantage in the Market Advantage dimension, suggesting it has a strong market position and customer focus. While both Technological Advantage and Brand Advantage are rated moderately, they could be areas for improvement to further strengthen the organization's overall competitive position.

Table 5*Relationship Between Green Employee Motivation and Strategic Orientation*

Variables	Rho	p-value	Interpretation
Economic Incentives			
Innovation Orientation	0.715**	<.001	Highly Significant
Market Orientation	0.718**	<.001	Highly Significant
Social Responsibility Orientation	0.405**	<.001	Highly Significant
Non-financial Incentives			
Innovation Orientation	0.728**	<.001	Highly Significant
Market Orientation	0.751**	<.001	Highly Significant
Social Responsibility Orientation	0.469**	<.001	Highly Significant
Training and Development			
Innovation Orientation	0.746**	<.001	Highly Significant
Market Orientation	0.753**	<.001	Highly Significant
Social Responsibility Orientation	0.468**	<.001	Highly Significant

***. Correlation is significant at the 0.01 level*

Table 5 presents the correlation between various green employee motivation factors (economic incentives, non-financial incentives, and training and development) and different strategic orientations (innovation orientation, market orientation, and social responsibility orientation).

The correlation coefficient is 0.715 with a p-value of <.001, which is highly significant. This indicates a strong positive relationship between economic incentives and the organization's focus on innovation. The correlation coefficient is 0.718 with a p-value of <.001, also highly significant. This suggests a strong positive relationship between economic incentives and the focus on understanding and responding to market needs. The correlation coefficient is 0.405 with a p-value of <.001, which is significant but weaker compared to innovation and market orientations. This shows a moderate positive relationship between economic incentives and the organization's commitment to social responsibility. The correlation coefficient is 0.728 with a p-value of <.001, indicating a highly significant and strong positive relationship between non-financial incentives and innovation orientation. This relationship remained significant regardless of whether other variables were added to the model. Second, the findings show that extrinsic motivators in the form of relational as well as transactional rewards can have a significant positive main effect on creative/innovative outcomes. Third, with respect to creative/innovative outputs, extrinsic motivators and intrinsic motivation are not necessarily antagonistic and are best considered simultaneously. The correlation coefficient is 0.751 with a p-value of <.001, highly significant. This suggests a very strong positive relationship between non-financial incentives and market orientation. The correlation coefficient is 0.469 with a p-value of <.001, which is significant and moderate. This indicates a moderate positive relationship between non-financial incentives and social responsibility orientation.

All three green employee motivation factors have significant positive correlations with all three strategic orientations. This suggests that investing in green employee motivation can indeed influence organizational strategic orientation. Among the motivation factors, non-financial incentives and training and development appear to have slightly stronger correlations with strategic orientation, especially market and innovation orientation. This implies that these factors might be particularly effective in driving employee behavior that aligns with these strategic goals.

Economic incentives, while still significant, seem to have slightly weaker correlations with strategic

orientation. This suggests that while economic incentives can motivate employees, a combination of non-financial incentives and training and development might be more effective in shaping organizational strategy.

Table 5 provides strong evidence that green employee motivation is a critical factor in shaping organizational strategic orientation. Organizations that invest in green employee motivation through economic incentives, non-financial incentives, and training and development are likely to foster a more sustainable and strategic organizational culture. All correlations are significant at the 0.01 level, indicating that the observed relationships are unlikely to be due to chance. Economic Incentives are strongly positively related to innovation and market orientations, moderately related to social responsibility orientation. Non-financial Incentives have the strongest positive relationships with innovation and market orientations and a moderate relationship with social responsibility orientation. Training and Development is strongly positively related to both innovation and market orientations, with a moderate relationship to social responsibility orientation. Green employee motivation is positively correlated with the strategic orientations, with varying degrees of strength. Economic incentives, non-financial incentives, and training and development all strongly support the organization's focus on innovation and market needs, while their impact on social responsibility is moderate.

Table 6

Relationship Between Green Employee Motivation and Competitive Advantage

Variables	Rho	p-value	Interpretation
Economic Incentives			
Technological Advantage	0.345**	<.001	Highly Significant
Brand Advantage	0.359**	<.001	Highly Significant
Market Advantage	0.336**	<.001	Highly Significant
Non-financial Incentives			
Technological Advantage	0.404**	<.001	Highly Significant
Brand Advantage	0.406**	<.001	Highly Significant
Market Advantage	0.354**	<.001	Highly Significant
Training and Development			
Technological Advantage	0.431**	<.001	Highly Significant
Brand Advantage	0.407**	<.001	Highly Significant
Market Advantage	0.349**	<.001	Highly Significant

** Correlation is significant at the 0.01 level

Table 6 presents the correlations between various types of green employee motivation (economic incentives, non-financial incentives, and training and development) and different dimensions of competitive advantage (technological, brand, and market).

The correlation coefficient is 0.345 with a p-value of <.001. This indicates a significant but moderate positive relationship between economic incentives and technological advantage. This means that higher economic incentives are associated with a greater technological advantage. The correlation coefficient is 0.359 with a p-value of <.001. This shows a significant but moderate positive relationship between economic incentives and brand advantage. Higher economic incentives are positively related to a stronger brand advantage. A positive relationship was found to exist between the components of customer-based brand equity and the firms' performance in luxury hotels and chain restaurants. The correlation coefficient is 0.336 with a p-value of <.001. This suggests a significant but moderate positive relationship between economic incentives and market advantage. More economic incentives are associated with a better market advantage. The correlation coefficient is 0.404 with a p-value of <.001. This indicates a significant positive relationship, though somewhat stronger than for economic incentives, between non-financial incentives and technological advantage. The correlation coefficient is 0.406 with a p-value of <.001. This shows a significant positive relationship between non-financial incentives and brand advantage. The correlation coefficient is 0.354 with a p-value of <.001. This indicates a significant positive relationship between non-financial incentives and market advantage, though slightly weaker than the relationship with technological and brand advantages. The correlation coefficient is 0.431 with a p-value of <.001. This reflects a significant and somewhat stronger positive relationship between training and

development and technological advantage compared to the other types of motivation. The correlation coefficient is 0.407 with a p-value of $<.001$. This indicates a significant positive relationship between training and development and brand advantage. The correlation coefficient is 0.349 with a p-value of $<.001$. This shows a significant positive relationship between training and development and market advantage, with a moderate strength relationship.

Economic Incentives, Non-financial Incentives, and Training and Development all show significant positive correlations with technological, brand, and market advantages. Training and Development tends to have the strongest positive correlation with technological advantage, indicating that it might have a slightly greater impact on technological leadership compared to other forms of motivation. Economic Incentives and Non-financial Incentives both show moderate positive relationships across all competitive advantage types, but non-financial incentives slightly outperform economic incentives in terms of brand and technological advantages. All of the analyzed relationships between green employee motivation and competitive advantage are significantly positive. This indicates that higher levels of green employee motivation are associated with stronger competitive advantages in all three dimensions. Among the three types of green employee motivation, training and development appears to have the strongest correlations with all three dimensions of competitive advantage. This suggests that investing in training and development programs that foster green skills and behaviors can be particularly effective in driving competitive advantage. Technological advantage consistently shows strong correlations with all three types of green employee motivation. This implies that employees who are motivated to engage in green practices are more likely to contribute to technological innovation and development. Brand advantage and market advantage also demonstrate significant relationships with green employee motivation, suggesting that motivated employees can positively impact a company's brand reputation and market position. Organizations should prioritize strategies to motivate employees to engage in green behaviors. This can include offering economic incentives, providing non-financial rewards, and investing in training and development programs. Given the strong correlations between training and development and competitive advantage, organizations should invest in programs that equip employees with the skills and knowledge needed to contribute to green initiatives. Organizations can leverage motivated employees to drive technological innovation and improve their brand and market position. By creating a supportive environment that encourages green practices, companies can foster a culture of innovation and sustainability.

Overall, the findings in Table 6 suggest that green employee motivation is a critical factor in achieving competitive advantage. By investing in employee motivation and development, organizations can enhance their sustainability performance and position themselves for long-term success.

Table 7

Relationship Between Strategic Orientation and Competitive Advantage

Variables	Rho	p-value	Interpretation
Innovation Orientation			
Technological Advantage	0.418**	$<.001$	Highly Significant
Brand Advantage	0.411**	$<.001$	Highly Significant
Market Advantage	0.321**	$<.001$	Highly Significant
Market Orientation			
Technological Advantage	0.407**	$<.001$	Highly Significant
Brand Advantage	0.400**	$<.001$	Highly Significant
Market Advantage	0.347**	$<.001$	Highly Significant
Social Responsibility Orientation			
Technological Advantage	0.523**	$<.001$	Highly Significant
Brand Advantage	0.470**	$<.001$	Highly Significant
Market Advantage	0.360**	$<.001$	Highly Significant

** Correlation is significant at the 0.01 level

Table 7 presents the correlation between various strategic orientations (innovation orientation, market orientation, and social responsibility orientation) and different dimensions of competitive advantage (technological advantage, brand advantage, and market advantage).

The correlation coefficient is 0.418 with a p-value of $<.001$. This indicates a highly significant and moderate positive relationship between innovation orientation and technological advantage. Organizations with a stronger focus on innovation tend to have a better technological edge. The correlation coefficient is 0.411 with a p-value of $<.001$. This shows a significant positive relationship between innovation orientation and brand advantage. A greater emphasis on innovation is associated with a stronger brand advantage. The correlation coefficient is 0.321 with a p-value of $<.001$. This indicates a significant but weaker positive relationship between innovation orientation and market advantage. While innovation orientation contributes positively to market advantage, the effect is less pronounced compared to technological and brand advantages. The correlation coefficient is 0.407 with a p-value of $<.001$. This reflects a significant positive relationship between market orientation and technological advantage. Organizations that focus more on market orientation tend to achieve better technological outcomes. The correlation coefficient is 0.400 with a p-value of $<.001$. This indicates a significant positive relationship between market orientation and brand advantage. A strong market orientation is positively related to a stronger brand. The correlation coefficient is 0.347 with a p-value of $<.001$. This shows a significant positive relationship between market orientation and market advantage, though the relationship is somewhat weaker compared to the technological and brand advantages. The correlation coefficient is 0.523 with a p-value of $<.001$. This indicates a highly significant and strong positive relationship between social responsibility orientation and technological advantage. A greater focus on social responsibility is strongly associated with enhanced technological capabilities. The correlation coefficient is 0.470 with a p-value of $<.001$. This shows a highly significant and strong positive relationship between social responsibility orientation and brand advantage. A strong social responsibility focus contributes significantly to a stronger brand advantage. The correlation coefficient is 0.360 with a p-value of $<.001$. This indicates a significant but moderately strong positive relationship between social responsibility orientation and market advantage. While social responsibility positively impacts market advantage, the effect is less strong compared to technological and brand advantages.

Innovation Orientation has significant positive correlations with all three types of competitive advantage, with the strongest relationship being with technological advantage. Market Orientation also shows significant positive correlations with technological, brand, and market advantages, though the correlations are somewhat weaker compared to those for innovation orientation. Social Responsibility Orientation has the strongest correlations with technological and brand advantages, indicating that a focus on social responsibility can significantly enhance these aspects of competitive advantage. The relationship with market advantage is still positive but not as strong. Strong evidence shows that strategic orientation in innovation, market, and social responsibility is a critical factor in driving competitive advantage. Organizations that prioritize these strategic orientations are likely to benefit from improved organizational performance and a stronger competitive position. All three strategic orientations (innovation, market, and social responsibility) have significant positive correlations with all three dimensions of competitive advantage. This suggests that adopting a strategic orientation in these areas can indeed contribute to a company's competitive edge. Social responsibility orientation appears to have the strongest correlations with all three competitive advantage dimensions, indicating that prioritizing social responsibility can be particularly effective in driving competitive advantage. Innovation orientation and market orientation also have strong correlations with competitive advantage, suggesting that these strategic orientations are also important contributors. Market Orientation: Market orientation, which involves focusing on customer needs and market trends, has been shown to be positively associated with competitive advantage. (Kohli et al.,1990).

Business Sustainability Management framework for Agricultural Enterprises

The presented figure illustrates a comprehensive framework for sustainable management in agricultural enterprises, emphasizing the interconnectedness of three key elements: Green Employee Motivation, Strategic Orientation, and Competitive Advantage. This framework aligns with existing literature on sustainability management and provides a holistic approach to achieving long-term success in the agricultural sector.

Green employee motivation, as depicted in the figure, encompasses economic incentives, non-financial

incentives, and training and development. This aligns with the findings of Asghar et al (2021) their study highlighted the importance of implementing effective GHRP practices to improve environmental performance. By fostering work engagement, job satisfaction, and aligning employee values with organizational goals, organizations can enhance their sustainability efforts. For instance, Purba et al.,(2020) emphasized the importance of empowering employees to drive the successful implementation of GHRM initiatives. By providing employees with the necessary autonomy, resources, and support, organizations can enhance employee motivation and foster a culture of sustainability.

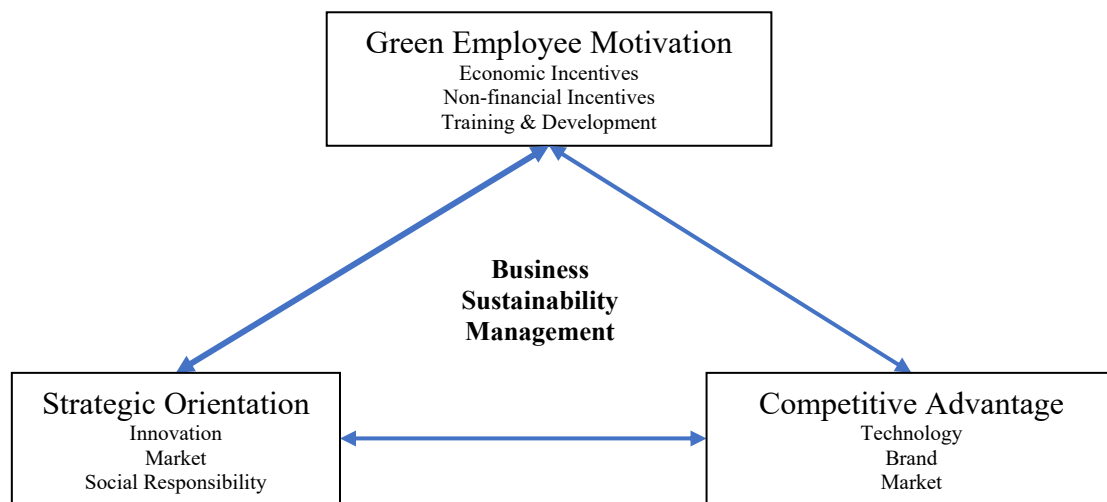


Figure 1. Business Sustainability Management framework for Agricultural Enterprises

The framework emphasizes the significance of strategic orientation in achieving sustainability goals. The three components of strategic orientation—innovation orientation, market orientation, and social responsibility orientation—are crucial for long-term success. Kim et al. (2023) explored the impact of strategic orientation (entrepreneurial orientation, market orientation, and technology orientation) on operational performance, with operational sustainability as a mediating factor. The results indicated that operational sustainability mediates the relationship between strategic orientation and operational performance. Danso et al. (2023) investigated the relationship between sustainability orientation and sustainability performance in cultural tourism destinations. The findings suggested that sustainability orientation, which includes environmental, social, and economic dimensions, positively influences sustainability performance. These studies provide valuable insights into the role of strategic orientation in achieving sustainability goals. They emphasize the importance of a balanced approach that considers innovation, market responsiveness, and social responsibility. By aligning their strategies with these dimensions, organizations can enhance their long-term sustainability and competitiveness.

The framework highlights the role of competitive advantage in driving sustainable performance. The three dimensions of competitive advantage—technological advantage, brand advantage, and market advantage—are interconnected and mutually reinforcing. Alam et al. (2021) conducted systematic literature review that examines the relationship between competitive advantage and firm performance. The study identifies four dimensions of competitive advantage: cost leadership, differentiation, innovation, and flexibility. The findings suggest that competitive advantage plays a significant role in improving firm performance. Alam et al. (2021) developed a conceptual framework to understand the relationship between sustainable competitive advantage and firm performance. The framework identifies three dimensions of SCA: technological advantage, brand equity, and cost leadership. The study also highlights the mediating role of organizational innovation and customer satisfaction.

The triangular relationship between green employee motivation, strategic orientation, and competitive

advantage underscores their interdependence. As shown in the figure, green employee motivation can drive strategic orientation by fostering innovation and a focus on sustainability. In turn, a strong strategic orientation can lead to competitive advantage, which can further motivate employees through recognition and rewards. This cyclical relationship highlights the importance of a holistic approach to sustainability management. The proposed framework offers several implications for agricultural enterprises: By investing in employee training, offering incentives, and fostering a positive work environment, agricultural enterprises can cultivate a motivated workforce committed to sustainability. By developing innovative products, understanding customer preferences, and prioritizing social responsibility, businesses can differentiate themselves and build a strong brand reputation. And by investing in technology, building strong brands, and establishing a dominant market position, agricultural enterprises can achieve long-term sustainability and profitability.

In conclusion, the presented sustainability management framework provides a valuable tool for agricultural enterprises to achieve their sustainability goals. By understanding the interconnectedness of green employee motivation, strategic orientation, and competitive advantage, businesses can develop effective strategies to address environmental challenges and create a sustainable future.

4. Conclusion and recommendation

Respondents exhibited moderate levels of motivation, indicating a balanced response to economic incentives, non-financial rewards, and training and development opportunities. Analysis revealed moderate levels of agreement among respondents regarding the firm's strategic orientation in innovation, market, and social responsibility. Respondents expressed moderate levels of agreement on the firm's competitive edge in terms of technological superiority, strong brand recognition, and market dominance. There is a high significant relationship among green employee motivation, strategic orientation and competitive advantage; A transformative sustainability management framework is designed to elevate customer satisfaction, loyalty, and market share, ultimately driving significant financial growth. The Human Resource Department may implement or improve recognition programs that acknowledge and reward employee achievements, both individual and team-based and customize training programs to meet the specific needs and goals of individual employees and teams. The top management may establish clear and measurable corporate social responsibility goals that align with the organization's values and mission. Marketing department may develop a strong and consistent brand identity that resonates with target customers. The proposed framework developed maybe adopted to achieve long-term success of the agricultural enterprises in a sustainable and competitive environment. Future researchers may conduct similar study using other variables like environmental factors.

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