

# Strategy Formulation Practices, Integration of ESG Metrics and Performance of Manufacturing Firms in Kenya

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## ABSTRACT

Manufacturing firms operate in an increasingly dynamic environment, these conditions demand firms to develop strategies that offer clear guidance. This study examined strategy formulation practices, integration of ESG metrics and performance of manufacturing firms in Kenya. Strategic Management Process theory grounded the study, Environmental scanning, strategic goal setting and stakeholders' engagement tested strategy formulation integration with ESG and ROE measured organizational performance. The study employed a Mixed method and a cross-sectional research design. The population studied consisted of 992 manufacturing firms registered with the Kenya Association of Manufacturers as at 31 December 2024 with a sample size of 285 firms determined using Yamane's formula, stratified random sampling used. 255 (89%) out of 285 questionnaires were completed and analysed. Respondents were senior managers. Descriptive statistics, Pearson product, correlation and regression analysis were used. Findings showed that strategy formulation was widely practiced with a grand mean of 4.05. Environmental scanning recorded highest mean 4.23. Environmental, Social and Governance practices generally integrated in firms with mean scores of 4.02, 3.96 and 3.98 respectively, yielding a composite ESG mean of about 3.99. A very strong positive and statistically significant relationship between strategy formulation and firm performance ( $r = .830$ ,  $p < .001$ ). Strategy formulation also had a positive, but weak, statistically significant relationship with ESG metrics ( $r = .173$ ,  $p = .006$ ), ESG metrics had a positive, statistically significant moderate relationship with performance ( $r = .574$ ,  $p < .001$ ). Results suggest systematic strategy formulation is strongly related to firm performance and ESG integration is positively associated with both although the relationship between strategy formulation and ESG integration is relatively weak. The study recommends that manufacturing companies should embed ESG factors in strategy formulation, improve environmental scanning and evidence based decision making, increase management involvement and develop integrated systems for monitoring ESG and organisational performance.

**Keywords:** Strategy formulation; ESG metrics; ESG integration; Firm performance; Manufacturing firms; Strategic management

## Introduction

Technological change, changing consumer tastes, intensifying competition, changes in regulations and fluctuations in input and product markets are making the business environment in which manufacturing firms operate more dynamic. These conditions force firms to make conscious strategic decisions about direction, resource allocation and competitive positioning. Strategic management is a framework within which organisations analyse their operating environment, choose priorities, develop strategies and apply organisational resources to achieve long-term goals. The strategy formulation in this process is an important stage as it forms the basis of what organisations want to achieve and how they plan to respond to opportunities and threats in their operating environment.

Strategy formulation is the set of activities by which organisations define their mission, vision and strategic objectives, assess internal and external conditions, formulate strategic alternatives and choose courses of

action. An effective formulation process allows managers to devise a clear organisational direction and ensures that strategic choices match environmental conditions and available resources. Environmental scanning is particularly useful as it enables an organization to identify potential opportunities and threats before it makes strategic decisions. Likewise, management at various levels contributes varying levels of organisational knowledge, and data and analytics enhance evidence-based decision-making. The evaluation of strategic options provides organisations the chance to compare possible courses of action prior to the commitment of resources.

The strategic management agenda has been broadened, with a growing emphasis on sustainability beyond the conventional financial and operational concerns. As ESG metrics provide organisations with indicator to determine environmental responsibility, social practices, and governance quality, they are becoming more important in guiding organisational decisions. ESG integration is the process of embedding environmental, social and governance considerations into the organisation's strategy, decision-making, operations, monitoring and reporting, rather than considering sustainability as a stand-alone compliance activity. ESG factors are especially relevant for manufacturing companies, as manufacturing activities can involve significant resource use, waste generation, environmental impacts, employment issues, supply chain relations and regulatory requirements. Environmental practices such as energy efficiency, waste management, environmental impact reduction and compliance with environmental standards can influence operational sustainability. Social practices related to employee well-being, fair employment practices, diversity, inclusion and community engagement can impact employee relations and stakeholder legitimacy. Good examples of governance practices that can enhance organisational control and stakeholder confidence are accountability, transparency, board oversight and disclosure.

Thus, the application of ESG metrics in strategic management can equip firms with data that is relevant to strategic priorities and organisational performance. Strategy formulation is a platform to identify the ESG priorities and incorporate them in the organisational objectives. Environmental scanning can highlight changes in stakeholder expectations and environmental regulation and sustainability related market requirements. Management involvement can help provide different perspectives on decisions regarding sustainability, and data and analytics can help monitor ESG performance. Assessment of strategic options may also help organisations consider environmental, social and governance implications of strategic choices.

Strategic formulation has been associated with organisational performance as evidenced in Kenya. Strategy formulation was found to have significant influence on performance among Kenyan state corporations by Maina et al. (2020) while strategic formulation was found to have significant prediction on the performance of small and medium manufacturing enterprises in Kenya by Sekere et al. (2023). Similarly, Rambeka and Odollo (2023) established a positive relationship between strategic management practices and performance of family owned manufacturing firms.

However, the relationship between strategy formulation, ESG integration and firm performance in the Kenyan manufacturing context is not that clear. Much of the existing literature is focused on the formulation of strategy and firm performance in isolation from ESG practices. This raises a need for empirical evidence on how strategic formulation practices relate to ESG integration and how the two constructs relate to organisational performance.

Hence, this study investigated strategy formulation practices, integration of ESG metrics and performance of manufacturing firms in Kenya. The study focused on five dimensions of strategy formulation: mission, vision and strategic objectives; environmental scanning; participation of different levels of management; use of data and analytics; and evaluation of strategic alternatives. ESG integration was measured through environmental, social and governance practices, and firm performance through financial, operational, market and reputation indicators.

## Problem Statement

Manufacturing sector is an important part of Kenya's economic development due to its contribution to employment, value addition, industrialisation, exports and economic growth. However, manufacturing companies operate in a dynamic environment of technological changes, changing market conditions, competitive pressures, regulatory requirements, resource constraints and increasing sustainability expectations. Such conditions require firms to develop strategic management processes that can respond to both traditional business pressures and emerging environmental, social and governance expectations.

Strategy formulation gives organisations a process to develop strategic direction, assess environmental conditions, engage relevant decision makers, utilise information and consider alternative options. The evidence available points toward better strategy formulation being related to better performance of organisations. However, the findings of previous studies have been found in different organisational and sectoral contexts and have often analysed strategy formulation without giving enough consideration to practices related to sustainability.

At the same time, ESG factors are being increasingly integrated into organizations' strategic decision-making.

Manufacturing firms are expected to respond to environmental impacts, employee welfare, community responsibilities, governance, transparency and sustainability reporting. However, ESG practices may still be perceived mainly as compliance or reporting exercises, rather than being incorporated into strategic decision-making. This leads to an important question of whether firms that adopt systematic strategy formulation are also more aligned with ESG practices and whether ESG integration is associated with better performance.

The existing empirical literature has provided scant evidence on the three constructs in the Kenyan manufacturing context. The bulk of the evidence available studies strategy formulation and performance as a direct relationship, while ESG research often looks at sustainability practices and performance separately. Thus, there is limited empirical understanding of the relationship between strategy formulation practices and ESG integration and their association with firm performance among manufacturing firms in Kenya.

Therefore, the study aimed to examine the relationship between strategy formulation practices, integration of ESG metrics and performance of manufacturing firms in Kenya. Bridging this gap provides evidence to help manufacturers decide whether ESG considerations should be integrated into strategic decision-making or treated as separate sustainability or compliance activities.

## **Objective Of the Study**

The study sought to examine the relationship between strategy formulation practices, integration of ESG metrics and performance of manufacturing firms in Kenya.

## **Theoretical review**

### **Strategic Management Process Theory**

The Strategic Management Process Theory Ansoff (1965) is the main theoretical basis of the study as it provides an appropriate theoretical foundation for explaining strategic formulation and the integration of ESG among manufacturing firms in Kenya. The theory views strategic management as the systematic process by which organisations set strategic direction, analyse internal and external environments, formulate strategies, implement chosen courses of action and evaluate strategic outcomes. Hence, strategy formulation is an important stage in the strategic management process as it provides the basis for organisational decisions and future action. During formulation, an organization identifies its mission and vision, sets strategic objectives, analyses its operating environment, recognises strategic alternatives, and selects suitable courses of action.

The theory lays the foundation for the five dimensions of strategy formulation under study. Mission, vision and strategic objectives provide organisational direction. Environmental scanning provides information on opportunities and threats. Participation involves different levels of management providing different organisational knowledge. Data and analytics provide an evidence base for strategic choices and the evaluation of strategic alternatives helps the systematic selection among different courses of action.

The theory is also relevant to ESG integration, as sustainability concerns are increasingly becoming part of the environment in which organisations formulate strategy. Environmental regulations, stakeholder expectations, social responsibilities and governance requirements can all impact strategic priorities. Thus, a systematic formulation process can provide firms with a chance to identify ESG-related risks and opportunities and embed relevant considerations into strategic decisions.

The application of Strategic Management Process Theory to this study is therefore based on the proposition that systematic strategy formulation is associated with company performance and represents a foundation for the infusion of ESG considerations into strategic decision-making.

## **Empirical Review**

### **Strategy Formulation and Firm Performance**

Empirical studies have generally found a positive relationship between strategy formulation and organisational performance. It was established that strategic formulation was a significant predictor of the performance of small and medium manufacturing enterprises in Kenya (Sekera et al., 2023). The study brought out the importance of mission, vision, goals and policies in giving direction to an organization.

Cheptanui and Senaji (2021) found a positive and significant relationship between strategy formulation and performance of milling companies in Kenya. The research was directed to the strategic direction and the evaluation of the internal/external environment. Maina et al. (2020) found that strategy formulation significantly affected the performance of Kenyan state corporations. This study found that environmental scanning was an important part of the formulation process. The results suggest that organisations that systematically evaluate their environment and set clear strategic direction may be better positioned for organisational achievement.

The present study contributes to this literature by studying a broader conceptualisation of strategy formulation in medium and large manufacturing firms. The construct of formulation comprises mission, vision and strategic objectives, environmental scanning, management participation, use of data and analytics and evaluation of strategic alternatives.

### **Strategy Development and ESG Integration**

Strategy formulation provides a means to institutionalise sustainability in strategic priorities. Explicit inclusion of environmental and social priorities in mission, vision and strategic objectives. Environmental scanning can help organisations to identify emerging regulatory, environmental and stakeholder expectations. Management participation can facilitate the consideration of ESG issues from different functional perspectives, and data and analytics can support monitoring and assessment of sustainability performance.

For manufacturing firms, such integration is particularly relevant as environmental and social issues can directly affect production activities, regulatory compliance, stakeholder relationships and organisational reputation. Governance considerations are relevant as well, because accountability, transparency and board oversight influence how sustainability commitments are translated into organisational practice.

The study thus conceptualises strategy formulation and ESG integration as interconnected organisational practices. However, the strength of their relationship is an empirical question, particularly in the Kenyan manufacturing context.

## ESG Integration and Performance of Firm

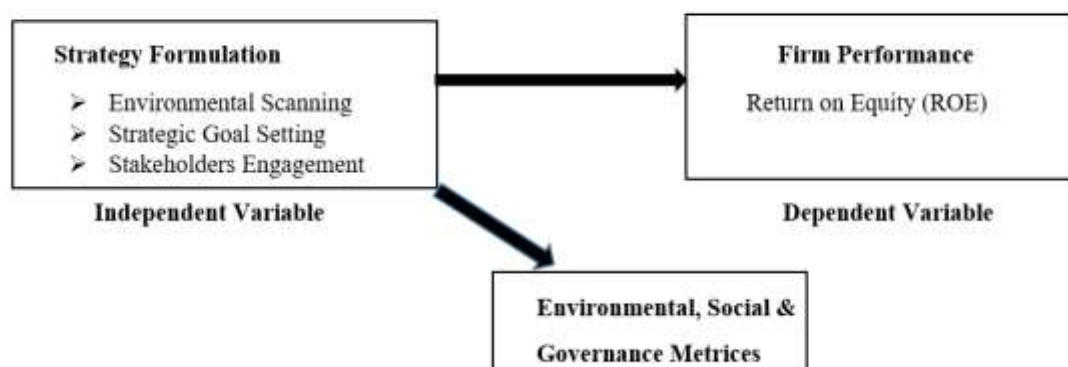
ESG practices can enhance organisational performance by facilitating efficient resource use, risk management, stakeholder relations, organisational legitimacy and responsible governance. Environmental practices can help you become more efficient with your resources and help you comply with regulations. Social practices can contribute to the improvement of employee welfare, stakeholder relationships and organisational reputation while governance practices can reinforce accountability, transparency and decision making.

However, the relationship between ESG and performance is not necessarily consistent across firms and contexts. The extent to which ESG integration leads to measurable performance outcomes can be influenced by the costs of implementing ESG practices, different regulatory environments and variations in organisational capabilities.

This study presents an opportunity to examine the relationship among Kenyan manufacturing firms with increasing sustainability expectations amid competitive and operational pressures.

## Conceptual Framework

The study conceptualizes strategy formulation practices and ESG metrics as related constructs associated with firm performance.



The conceptual framework proposes that systematic strategy formulation is associated with firm performance and ESG integration, while ESG integration is also associated with firm performance.

## Hypotheses

**H<sub>01</sub>:** There is no significant relationship between strategy formulation practices and the performance of manufacturing firms in Kenya.

**H<sub>02</sub>:** There is no significant relationship between strategy formulation practices and the integration of ESG metrics among manufacturing firms in Kenya.

**H<sub>03</sub>:** There is no significant relationship between the integration of ESG metrics and the performance of manufacturing firms in Kenya.

## Methodology

### Research Approach and Design

The study design was mixed method and cross-sectional. The quantitative approach was appropriate because the study aimed to measure the strategy formulation practices, ESG integration and firm performance using

standardised indicators and to statistically examine relationships among the constructs.

The choice of a cross-sectional design is because data was collected from manufacturing firms at one point in time to establish the strategy formulation practices in place, the extent of ESG integration and the reported organisational performance.

### Population and Unit of Analysis

The target population was 992 manufacturing firms registered with the Kenya Association of Manufacturers as at 31st December 2024. The study focused on medium and large manufacturing firms because of their well established organisational structures and processes of strategic management.

The unit of analysis was the manufacturing firm, and the unit of observation was senior managers with knowledge of their firms' strategic management practices, ESG activities, and organisational performance.

### Sampling Procedure and Sample Size

The sample size was calculated using the Yamane formula at 5 % level of precision:

$$n = N / [1 + N ( e^2 )]$$

Where:

n = number of samples ( )

N = number of individuals in the population

e = level of accuracy

The sample size was determined using a population of 992 manufacturing firms and 5% precision level, and the sample size was approximately 285 firms.

Stratified random sampling was utilised to ensure representation from the different manufacturing subsectors. The firms selected were then contacted to participate in the study.

A total of 285 questionnaires were distributed, of which 255 completed questionnaires were obtained and used for analysis. This results in an 89.5% response rate.

### Tool for Data Collection

Primary data were gathered through the administration of a structured questionnaire containing close-ended items that were measured on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

Strategy formulation was assessed using five dimensions: mission, vision and strategic objectives; environmental scanning; involvement of various management levels; application of data and analytics; and appraisal of strategic alternatives.

ESG integration was measured through nine indicators equally distributed among environmental, social and governance dimensions. Environmental practices included energy efficiency and waste management, reducing environmental impact and adhering to environmental standards. Examples of social practices included fair labour practices and employee welfare, community development and diversity and inclusion. Governance practices included accountability and transparency, ESG issues discussed at the board level, and ESG disclosure.

The firm's performance was measured on profitability, revenue growth, production efficiency, product quality, market share, and organisational reputation.

## Pilot Tests

Prior to the main data collection, the questionnaire was pilot tested. The pilot exercise was conducted on respondents who were not included in the final study. It was aimed at evaluating clarity, relevance and consistency of the questionnaire items and to identify ambiguous or poorly structured questions. Feedback from the pilot exercise was used to refine the questionnaire prior to its administration to the selected firms.

## Validity and Reliability

Reliability was assessed using Cronbach's alpha. Acceptable was taken as a coefficient of 0.70 or above. The Cronbach's alpha for strategy formulation construct was 0.904 and that for firm performance was 0.812. The general evaluation of the study reliability also indicated coefficients higher than the accepted threshold for the other constructs of strategic management. These results indicate an acceptable internal consistency of the scales. Validity Content validity was established by review of relevant literature and expert assessment of questionnaire items. Factor analysis was used to assess construct validity. Varimax rotated principal component analysis was performed. The KMO measure of sampling adequacy was .873 and Bartlett's Test of Sphericity was statistically significant,  $\chi^2 = 1809.498$ ,  $df = 105$ ,  $p < .001$ , indicating that the data were appropriate for factor analysis.

## Analysis of Data

The data were coded and analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics, such as mean and standard deviation, were used to provide an overview of strategy formulation practices and ESG integration. The direction and strength of relationships between strategy formulation, Environmental, Social and Governance (ESG) metrics and firm performance were determined using Pearson Product-Moment correlation. Simple linear regression was used to establish the extent to which strategy formulation predicted firm performance. The relationships were tested for statistical significance at the 0.05 level. The regression model for strategy formulation and performance was specified as:

$$Y = \beta_0 + \beta_1 X + \varepsilon$$

Where:

Y = the performance of the firm

X = strategy formulation practices .

$\beta_0$  = constant

Regression coefficient  $\beta_1$

e = error term

Correlation was treated as an indicator of association, while regression was used as an indicator of statistical prediction. As this is a cross-sectional study, findings were not interpreted to establish causal relationships.

## Findings and DiscussionsDescriptive Findings on Strategy Formulation

**Table 1: Descriptive Statistics for Strategy Formulation**

| Strategy formulation indicator                 | N   | Mean | Std. Dev. |
|------------------------------------------------|-----|------|-----------|
| Mission, vision and strategic objectives       | 255 | 4.07 | 0.443     |
| Environmental scanning                         | 255 | 4.23 | 0.617     |
| Participation from different management levels | 255 | 3.96 | 0.574     |

|                                      |            |             |       |
|--------------------------------------|------------|-------------|-------|
| Use of data and analytics            | 255        | 4.04        | 0.61  |
| Evaluation of strategic alternatives | 255        | 3.95        | 0.599 |
| <b>Grand Mean</b>                    | <b>255</b> | <b>4.05</b> |       |

The results showed that the practice of strategy formulation was prevalent in manufacturing firms. The average scores for all five indicators were above the midpoint of the five-point scale. Environmental scanning had the highest mean score of 4.23, followed by mission, vision and strategic objectives at 4.07, use of data and analytics at 4.04, participation of different management levels at 3.96 and evaluation of strategic alternatives at 3.95.

The high score for environmental scanning indicates that manufacturing firms attached considerable importance to the monitoring of change in their operating environment. Monitoring is particularly critical in manufacturing, as strategic decisions can be affected by changes in technology, competition, customer tastes, input prices and regulation.

Mission, vision and strategic objectives also scored high with a mean score of 4.07 indicating that firms generally had a clear strategic direction. The relatively high score for management participation indicates that different levels of management participated in the formulation of strategy.

The results also show that manufacturing firms generally used data and analytics in making strategic choices. Evaluation of strategic alternatives was also practiced. The grand mean of 4.05 shows the overall high level of practices of strategy formulation.

## Descriptive Findings on ESG Integration

**Table 2: Descriptive Statistics for ESG Integration**

| ESG dimension             | Mean        |
|---------------------------|-------------|
| Environmental practices   | 4.02        |
| Social practices          | 3.96        |
| Governance practices      | 3.98        |
| <b>Composite ESG mean</b> | <b>3.99</b> |

Findings from the study indicate that manufacturing firms generally reported integration of environmental, social and governance practices. The environmental practices had the highest dimension mean of 4.02, followed by governance practices (3.98) and social practices (3.96). The composite ESG mean is around 3.99, indicating general consensus that the firms had adopted meaningful ESG practices.

Environmental practices were reflected by policies for energy efficiency and waste management, minimisation of environmental impacts and compliance with environmental standards. The highest mean (4.05) among these indicators was compliance with national and international environmental standards.

Social practices included fair labour practices and employee welfare, community development and diversity and inclusion. Diversity and inclusion had the highest social mean of 4.00 while fair labour practices and employee welfare had 3.93.

Good governance practices included accountability and transparency, ESG issues being considered at board level and ESG reporting. In the dimension of governance practices, the mean was 3.98. The results indicate that the manufacturing firms examined have made ESG considerations pertinent to organisational practices.

The findings are important because they show that ESG integration should not be seen as simply an external reporting requirement. The relatively high ESG scores suggest that environmental, social and governance

considerations existed within organisational practices, and so could be considered alongside strategic decision-making and performance.

### Correlation between Strategy Formulation, ESG Metrics and Firm Performance

**Table 3: Pearson Correlation Matrix**

| Variable             | Strategy Formulation | ESG Metrics | Firm Performance |
|----------------------|----------------------|-------------|------------------|
| Strategy Formulation | 1                    | .173        | .830             |
| ESG Metrics          | .173                 | 1           | .574             |
| Firm Performance     | .830                 | .574        | 1                |

The Pearson Product-Moment correlation analysis confirmed a very strong positive and statistically significant relationship between strategy formulation and firm performance ( $r = .830$ ,  $p < .001$ ). Thus, firms in manufacturing that reported high levels of systematic strategy formulation also reported high levels of performance.

This finding provides strong empirical support for the importance of strategy formulation in the manufacturing sector. The relationship can be explained in terms of the different activities involved in the formulation process. Clear mission, vision and strategic objectives provide direction, environmental scanning provides information about opportunities and threats, management participation provides diverse knowledge, data and analytics provide evidence based decision making, and evaluation of strategic alternatives enables informed strategic choices.

Strategy formulation also found a statistically significant but weak positive relationship with ESG metrics ( $r = .173$ ,  $p = .006$ ). This suggests that firms with stronger strategy formulation practices tended to report somewhat stronger ESG integration, but the relationship was considerably weaker than the relationship between strategy formulation and performance.

The weak formulation ESG relationship implies that systematic strategy formulation does not necessarily result in expansive ESG integration. ESG considerations may require specific organisational systems, sustainability capabilities, regulatory awareness, stakeholder engagement and governance structures outside the general strategic formulation process. Consequently, manufacturing firms may need to purposefully embed ESG priorities into strategy formulation, rather than expecting general strategic planning to automatically ensure comprehensive ESG integration.

ESG metrics were moderately positively and significantly correlated with firm performance ( $r = .574$ ,  $p < .001$ ). Thus, firms with stronger reported environmental, social and governance practices also tended to report stronger performance.

The finding suggests that ESG integration may be of practical relevance to organisations. Environmental practices may help with efficient use of resources and regulatory compliance. Social practices may help with employee welfare, stakeholder relationships and organisational reputation. Governance practices may help with accountability, transparency and decision making.

The three way pattern of relationships is of particular importance. Firm performance was most strongly associated with strategy formulation, followed by a moderate association with ESG and a weaker association with strategy formulation. This implies that ESG is an important organisational practice related to performance, but the present formulation specific analysis does not demonstrate that ESG mediates the relationship between strategy formulation and performance.

## Regression Analysis: Strategy Formulation and Firm Performance

**Table 4: Simple Linear Regression of Strategy Formulation on Firm Performance**

| Statistic         | Result     |
|-------------------|------------|
| R                 | 0.83       |
| R Square          | 0.688      |
| Adjusted R Square | 0.687      |
| F(1,253)          | 558.584    |
| Significance      | $p < .001$ |
| B                 | 0.62       |
| Beta              | 0.83       |
| t                 | 23.634     |

Results of the regression analysis showed that strategy formulation significantly predicted firm performance. The model was significant ( $F(1,253) = 558.584, p < .001$ ). The coefficient of determination was  $R^2 = .688$ , meaning that strategy formulation explained 68.8% of the variation in the reported firm performance measure in the sample. The standardised regression coefficient was positive and statistically significant ( $\beta = .830, t = 23.634, p < .001$ ). The unstandardised coefficient was  $B = .620$ .

The regression equation obtained was:  $\text{Performance} = 1.645 + 0.620 (\text{Strategy Formulation})$

The positive coefficient signified that higher levels of systematic strategy formulation correlated with higher predicted performance scores. This was consistent with the finding of Sekere et al. (2023) that strategic formulation significantly predicted performance among manufacturing SMEs in Kenya. This also corroborates with the findings of Maina et al. (2020) on the relationship between strategy formulation and organisational performance.

The comprehensive conceptualisation of strategy formulation could partly explain the strong relationship found in this study. Instead of formulation as the presence of strategic plan, the study looked at environmental scanning, management participation, use of data and analytics and evaluation of strategic alternatives. These activities together provide organisations with information and processes that can support informed strategic decisions.

The finding additionally emphasises the need for environmental scanning as it had the highest mean of strategy formulation of 4.23. Manufacturing firms operate within an environment shaped by technology, competition, regulation, customer expectations and input costs. Managers can systematically monitor these factors to obtain the information needed to adjust strategic priorities.

### Strategy Development & ESG Integration

There was a positive and statistically significant, but weak, correlation between strategy formulation and ESG metrics ( $r = .173, p = .006$ ). This result indicated that strategy formulation and ESG integration were related, but the relationship was considerably weaker than the formulation performance relationship.

The finding has important managerial implication. It implies that ESG integration does not necessarily arise from a formal or systematic strategy formulation process. Manufacturing firms may develop strategies in a systematic way, but still treat ESG as a separate function of sustainability, compliance or reporting.

Environmental, social and governance considerations need to be deliberately built into mission and objectives, environmental scanning, strategic alternatives, data requirements and strategic evaluation to become strategically integrated. These can include, identification of climate-related risks, environmental regulations, stakeholder expectations and resource constraints through environmental scanning. Strategic alternatives can also be assessed based on environmental and social impacts as well as financial returns.

The result thus supports the need for conscious integration of ESG elements into strategic formulation instead of relying on general strategic planning practices alone.

### **ESG Integration and Firm's Performance**

The study found that ESG metrics had a moderate positive, statistically significant relationship with firm performance ( $r = .574$ ,  $p < .001$ ). This demonstrates that manufacturing firms with better environmental, social and governance practices tended to report better performance.

This finding supports the view that ESG practices can have organisational relevance beyond compliance. Energy efficiency, waste management and environmental standards related environmental practices can help support resource efficiency and reduce exposure to environmental and regulatory risks. Social practices can contribute to the welfare of employees, diversity, inclusion and community relations. Good governance practices can improve accountability, transparency and responsible decision-making.

The finding is also consistent with the wider stakeholder perspective since manufacturing firms operate within relationships with employees, customers, suppliers, regulators, communities, investors and other stakeholders. In addition, good ESG practices can reinforce those relationships and lead to organisational legitimacy and reputation.

The correlation does not prove that better performance is caused by ESG practices. Other organisational and environmental factors may be involved in the observed relationship. Further research using longitudinal data and objective measures of ESG and financial performance would therefore be useful.

## **DISCUSSION**

The results indicate that strategy making, ESG integration and firm performance are interrelated organisational constructs in the manufacturing firms examined. The grand mean for strategy formulation was high at 4.05 and the composite mean of about 3.99 indicated that ESG practices are generally integrated as reported.

The strongest empirical relationship was that between strategy formulation and firm performance. The correlation coefficient of .830 and regression coefficient of  $\beta = .830$  indicate a strong statistical association between systematic formulation practices and performance. This finding is in agreement with the Strategic Management Process Theory which asserts that organisations are more likely to achieve their goals when strategic decisions are based on environmental analysis, strategic direction and systematic evaluation.

Strategy formulation was positively but weakly related to ESG. This finding is critical because it excludes the assumption that the integration of ESG factors is a natural outcome of effective strategy formulation. It instead implies that ESG integration may need to be an explicit strategic focus. Even with the proper strategic planning processes, firms might still need to develop specific ESG policies, indicators, governance structures, reporting systems and accountability mechanisms.

The moderate association between ESG metrics and firm performance contributes to the evidence that ESG practices matter for organisations. The result suggests that better performance of manufacturing firms is associated with the simultaneous presence of environmental responsibility, social practices and quality in governance. But the moderate strength of the relationship also suggests that ESG is just one of many factors associated with firm performance.

The combined interpretation thus implies that strategy formulation is especially strongly linked to performance, and ESG practices are linked to performance, but comparatively weakly. The relationship between strategy formulation and ESG is also positive but the relationship is weak. These findings support an integrated strategic management perspective, whereby firms should intentionally embed ESG considerations in strategic processes, while recognising that ESG integration and strategy formulation are related, yet distinct organisational practices.

Importantly, the current paper does not interpret the formulation ESG link as indicative of mediation. The formal mediation analysis in the broader thesis is on composite Strategic Management Practices comprising strategy formulation, strategy implementation and strategy evaluation. Here, the formulation specific results demonstrate relationships between formulation, ESG and performance, but do not show, independently, a formulation specific indirect effect.

## CONCLUSION

The study establishes a significant relationship between strategy formulation practices, ESG integration and firm performance among manufacturing firms in Kenya.

There was a heavy emphasis on practicing strategy formulation, with the most highly rated formulation practice being environmental scanning. In total, the results suggest a very strong positive relationship between strategy formulation and firm performance. It appears that firms that engage in more systematic formulation practices tend to report stronger performance.

The study also concludes that there was a general integration of the ESG practices within the manufacturing firms. Environmental, social and governance practices all had relatively high mean scores, with environmental practices having the highest dimensional mean.

The link between strategy formulation and ESG integration was positive but weak and statistically significant. This shows that systematic strategy formulation is associated with ESG integration, but the strength of the relationship indicates that ESG integration requires deliberate and specific attention, rather than being an automatic outcome of general strategy formulation.

ESG integration was also positively and moderately correlated with firm performance. This implies that stronger environmental, social and governance practices go hand in hand with stronger reported performance among the studied firms.

Overall, the findings suggest that strategy formulation, ESG and performance should not be viewed as entirely separate organisational issues by manufacturing firms. Instead, ESG considerations should be purposefully integrated into strategic direction, environmental scanning, strategic alternatives, evidence-based decision making, and strategic review.

## RECOMMENDATIONS

The study recommends the following:

Manufacturing firms should consciously integrate environmental, social and governance considerations in strategy formulation. Instead of being solely compliance or reporting activities, ESG priorities should be incorporated into strategic objectives, environmental scanning, assessment of strategic alternatives and strategic decision-making.

Manufacturing firms should improve constant environmental scanning. Management should continually monitor changes in customer expectations, competition, technology, environmental requirements, regulatory developments, resource availability and stakeholder expectations. The findings suggest that environmental scanning was the highest-rated strategy formulation practice and should continue to be an important element of strategic decision-making.

Manufacturers should invest in systems and capabilities that allow managers to collect and analyse both traditional business information and ESG-related information. Where appropriate, information on energy consumption, waste, emissions, employee welfare, diversity, governance, stakeholder relations and organisational performance should be embedded in strategic decision-making.

Different management levels and functional departments should be involved in the formulation of strategy and ESG related decision making. The information was observed to be held in production, finance, human resources, procurement, marketing, sustainability and other relevant functions that can improve identification and assessment of strategic and ESG related opportunities and risks.

Manufacturers need to ensure that ESG issues are being given the proper attention at the senior management and board levels. Companies should be explicit regarding accountability for oversight, monitoring and reporting of ESG and should foster accountability and transparency of ESG-related decisions.

Manufacturing companies should establish systems that link ESG indicators to strategic objectives and organisational performance. The management reporting and strategic review processes should include periodic review of ESG performance. This would enable firms to evaluate whether ESG initiatives are helping to achieve strategic and organisational goals.

Industry bodies and policy makers should continue to support manufacturing firms in developing the ESG capabilities. Training, guidance and reporting frameworks should incentivise firms to embed ESG considerations into strategic management, not just reporting requirements.

## Limitations And Future Research

The study had some limitations. First, the cross-sectional design limited the ability to track changes in strategy formulation, ESG integration and firm performance over time. Future research should use longitudinal designs to examine whether changes in strategic formulation and ESG practices precede changes in organisational performance.

Secondly, the study was limited to medium and large manufacturing firms registered with the Kenya Association of Manufacturers. Therefore, the findings may not be directly generalisable to small and micro enterprises or firms working in other sectors.

Third, the study relied heavily on perceptual responses. Such data could be affected by respondent bias and common method effects. Where possible, future research should combine managerial assessments with objective financial, operational and ESG indicators, and collect data from multiple respondents within individual firms.

Fourth, the current paper explored the relationships between strategy formulation, ESG and performance, but did not estimate a strategy formulation specific mediation model. Future research could specifically test the mediating role of ESG in the relationship between the dimensions of individual strategy formulation and performance with the use of a dataset and model designed for that.

Future studies may also examine the extent to which the relationships differ by firm size, manufacturing subsector, ownership structure, export orientation, technological intensity or level of ESG maturity.

## Ethical Consideration

Prior to data collection, an introduction letter was issued by Cooperative University of Kenya, an ethical approval obtained from Tangaza University of Kenya Institutional Review Board (IRB), followed by a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). The study thereafter complied with all applicable ethical guidelines governing research involving human participants, as well as the internationally recognized ethical standards as described by Cooper and Schindler (2014) on voluntary participation. Respondents' participation was entirely voluntary, and informed consent

was acquired before any data was collected. The study posed minimal risk to participants, mainly the perceived disclosure of strategic organizational information. To minimize this risk, no personal or organizational identifiers was collected, and all data was coded, securely stored, and used solely for academic purposes. Participants were informed of their right to withdraw from the study at any stage without any penalty.

## Conflict of Interest

No conflict of interest existed during the study.

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