MODERATING EFFECT OF FIRM SIZE ON THE RELATIONSHIP BETWEEN MANAGEMENT PARTICIPATION AND FIRM PERFORMANCE

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ABSTRACT

The study aimed to determine the effect of management participation practices on the performance of manufacturing firms in a developing country context. The study used descriptive survey approach. A structured and semi structured questionnaire was administered to 176 manufacturing firms comprising twelve sub sectors firms in Nairobi and surrounding areas. Out of which, 111 usable questionnaires were returned, giving a response rate of 63% which is adequate for analysis. While, Pearson’s product moment correlation coefficient to indicate direction of relationship between the independent, dependent and moderator variables, multiple regression analysis was used to explain the nature of relationship between the variables. F-statistic was also used to decide the validity of the model while R-squared was used to help determine the model goodness-of-fit. The findings revealed that performance of manufacturing firms was significantly related to the nature and extent of management participation in strategic planning. The study thus concluded that management participation in strategic planning had significant effect on both the financial and non-financial performance indicators of the manufacturing firms. Hence management participation in strategic planning is a significant factor among firm level practices that enhance overall firm performance. The study also concluded that, while firm size is a predictor in management participation and firm performance relationship, it is not moderator in the relationship between management participation and firm performance and therefore there may be other moderators not dealt with in the study.

Key words: Strategy, Strategic Planning, Management participation, Firm performance.
Introduction
The manufacturing sector is a critical economic pillar to Kenya’s Vision 2030. The overall goal for the manufacturing sector has been “to increase its contribution to GDP by at least 10% per annum. The sector contributes 13% of the total formal employment and according to the World Bank, (2013); the sector has the potential to play an important role in putting Kenya on a sustainable growth path. However, as a share of GDP, manufacturing has continued to stagnate at between 10 and 12 percent of GDP throughout the past two decades. As a share of GDP, however, manufacturing has continued to stagnate at between 10 and 12 percent of GDP throughout the past two decades. While this level is well ahead of its regional peers, it remains far behind South Africa (which has a similar population level) and international peers who have experienced major growth in the manufacturing sector’s contribution to GDP. As recently as 2000, manufacturing was the second largest contributor to the Kenyan economy. It has since fallen to fourth in importance, having been surpassed by the transport & communications and wholesale and retail trade sectors. (World Bank, 2014). It has also been observed, that firm level factors and processes seem to have been ignored in the discourse. The study aims to determine the effect of management participation dimension of strategic planning and firm performance from a Balanced Score Card perspective, which combines financial performance measures and non-financial performance.

Research Question:
The study sought to answer two fundamental questions: What is the effect of management participation on the performance of Kenya’s manufacturing firms? What is the moderating effect of firm size on the relationship between management participation and firm performance?

Literature Review:
Management Participation
Strategic planning has become a standard part of management thinking and practice in modern business world and a standard for progressive firms. Strategic planning is said to be beneficial in the promotion of strategic thinking, acting, and learning (Bryson, 2004). However, researchers have not yet conclusively determined why some planning efforts are more successful than others. Streib and Poister (2002) assert that strategic planning seeks to revitalize an organization by channelling effort toward the most important goals and activities. Strategic planning is an essential part of aggressive results-oriented management. It is a “big picture” approach that appears well suited to our rapidly changing world (Aldehayyat & Al Khattab, 2013; Ocasio & Joseph, 2008). Kaplan and Norton (2008) observe that, selection of a strategy should be governed by a systematic process, one that defines the organization’s purpose and goals and carefully examines the external and internal environment to identify opportunities and constraints regarding that strategy.

Dyson and Foster (1982) opines, that, research partially supports the positive impact of management participation in strategic planning,. Freeman (1989) suggested that the extent of managerial participation in strategic planning had an overriding positive association with the criterion variates, the planning consequences. Ikävalko &Aaltonen (2001) identified middle managers as those actors, who are both subordinates and superiors, that is, between the organizational levels of management and personnel. Thus, our definition includes both middle management, operating and top management.
Elbanna (2008) indicates that, many authors have highlighted the important role of management participation in the strategic planning process and depicted a positive relationship between management participation and strategic planning outcomes. He further argued, that today’s business environment demands cooperation between both top management and people at other managerial levels. Top managers need to articulate the context, develop organization structures and reward systems which encourage middle managers to think strategically. Ketokivi and Castaner (2004) and Chatchai (2012) believed that management participation may reinforce the positive effectiveness of strategic planning practice and suggested it will generate informational value and attitudinal effects and additionally, overcome any inherent problems such as: rivalry among divisions, departments, branches, resistance to change, resource requirement, and resources allocation. Ridwan & Marti (2012) suggested that for strategic planning to be effective and useful, there must be commitment and involvement all over the organization. Aosa (1992) observed that companies reporting high managerial involvement were significantly more successful in implementing strategic decisions than those whose involvement was low. However, Namada et al, (2014) concluded that management participation is a much more complex variable that may be moderated by other factors such as culture diversity and firm size. There has been growing research interests in the manufacturing sector in Kenya, Aosa, (2011 investigated the adoption of strategic planning in manufacturing firms in Kenya and found out that foreign owned manufacturing firms adopted strategic planning practices more than locally owned firms. Arasa and K’Obonyo (2012) established a significant relationship between strategic planning and performance in the insurance sector firms in Kenya. While, Awino et al, (2013) established a positive link between strategic planning practices and performance in the commercial banking sector in Kenya. Namada et al, (2014) examined the effects of management participation as a firm level practice on firm performance in the Export Processing Zone (EPZ) firms. Haron and Arul Chellakumar (2012) found that, in Kenya the small-sized manufacturing companies are the best performing companies in terms of relative efficiency (83 percent) followed by large-size manufacturing companies (69 percent) and medium-sized manufacturing companies (68 percent) in that order. They however used only financial measures to determine performance variations among the firms. Firm measurement is a multi-dimensional aspect of with many variables (Kennerley & Franco-Santos, 2005). Hence the study aimed to examine the effect of management participation as a dimension of strategic planning on firm financial and non-financial performance.

**Firm Performance**

Measurement of organizational performance is not easy for business organizations with multiple objectives of profitability, employee satisfaction, productivity growth, corporate social responsibility and adaptability (Waiganjo, 2013). Khatri and Ng(2000) defined performance as the way an organization performs vis-a-vis other similar organizations in its industry, not only on traditional financial indicators of performance but on important non-financial indicators as well.(cited in Elbanna and Naguib, 2009). Kargar and Parnell (1986) and Ramanujam and Venkatraman (1987) describe firm performance as, how well or badly a firm is performing both financially and non-financially. Ramanujan et al, (1986) asserted that an exclusive emphasis on financial performance is conceptually unsound. Elbanna (2009) and McLarney (2001) have noted that in measuring strategic planning
effectiveness, traditional strategic planning research has neglected the role of a range of non-financial outcomes. These include, efficiency in operations, public image, quality of products and employee satisfaction. The firm performance criteria in general have traditionally focused on metrics based on financial information. However, financial measures are historical in nature, reporting outcomes and the consequences of past actions (Kaplan & Norton, 2001) thus; they are of little use in improving current performance (Kagioglou et al., 2001). This situation has led to criticism of business environments that rely on lagging financial measures, since these measures result in short-termism, lack of strategic focus, local optimization and misleading signals for continuous improvement and innovation that are not externally focused on customers and competitors (Bourne et al., 2000; Anderson & McAdam, 2004).

Parker (2000) averred that financial measures fail to include the less tangible factors such as product or service quality, customer satisfaction and employee morale and added that they tend to be very insular and inward-looking and only take what is happening in the firm into account.

A number of studies have adopted a multi-dimensional approach to assessing firm performance. Phillips and Moutinho (2000) describing performance as the accomplishments and outcomes of an entity, caution that generally agreed measures of performance of a company are hard to come by, adds that, the option to ignore performance is not viable, since performance improvement is an important strategic objective. In an attempt to address some of the challenges, Walker and Ruekert (1987) broke down the important aspects of corporate strategy into effectiveness, efficiency, and adaptability; however, they then admit that there is little agreement as to which measure is best. Elbanna (2008) suggested Non-financial measures which included, increased effectiveness in achieving strategic goals, increased commitment among line managers shared vision, fit between internal and external capabilities and consideration of the future implications of decision. Kaplan and Norton (2008) argue that the Balanced Score Card considers financial indications as one of the critical measures of firm performance. Performance in manufacturing firms is measured in terms of a firm’s profit margins, volume of sales and employment opportunities created as a result of the firm’s products and services being sold in the market place (Kiganane, 2013).

According to Kaplan and Norton (1992) the financial perspective use a financial performance measurement indicator as to whether the company’s strategy, implementation and execution are affecting the bottom line enhancement. Financial goals for large companies will be profitability, growth and shareholder’s value. However, Amoako-Gyampah and Acquah (2008) limited themselves to sales growth, market share omitting other measures such as profitability because of desire to obtain a large response rate and observed that in Ghana, there is often reluctance by firms to divulge sensitive financial information on profitability and performance, even when the data requested were subjective. The study thus integrated financial and non-financial parameters with direct impact on performance. These parameters have been used together with the financial measures of sales growth, profitability growth, Assets growth and employment growth referring to employment opportunities created. Non-financial measures included; customer growth, internal business processes and firm learning and growth focussing on aspects such as, innovation, research and development.

Firm Size (Moderator)
According to Niresh & Velnampy, (2014), firm size is a primary factor in determining the profitability of a firm due to the concept of economies of scale in the
neo classical view of the firm. Akinyomi and Olagunju (2013) showed that in today’s world firm size is very critical to performance due to the phenomenon of economies of scale. Essentially, it means larger manufacturing entities can obtain cost leadership relative to smaller firms. Firms’ size is seen by manufacturing companies as a resource in obtaining sustainable competitive advantage in terms of profit and market share. Ramasamy, Ong and Yeung, (2005) observed that the association between firm performance and firm size was ambiguous and cautioned need for industry specific consideration while, advising researchers to proceed on a case-by-case basis of analysis and avoid the tendency to generalise. Abdurahman, Awad, Erik and Jeffrey (2003) in Oladele et al (2013) observed that the nature of the relationship that exists between firm size and profitability is an essential matter that may shed some light on the factors that enhance profits in firms.

The link between firm size and performance has been contentious since Gibrat (1931) hypothesis, described that firm’s growth rate is independent of its size. Palangkaraya, Stierwald and Yong (2005) in their study showed that larger and older firms were less productive, but found the evidence less than conclusive. In more recent studies, however, a positive relationship has been established between the size of the firm and profit. Akinyomi et al (2013) in their study found that firm size, both in terms of total assets and in terms of total sales, has a positive effect on the profitability in Nigerian manufacturing companies. Accordingly, Cabral & Mata, (2003) in their study of Portuguese manufacturing firms validated the view that availability of more accurate and complete data set has been adduced as the reason for the conflict between what was previously held as independent relationship between firm size and growth and new findings that there is positive relationship. Wu (2006) in Prasetyantoko and Parmonon (2012) argued that larger firms have stronger competitive capability than the smaller ones as a result of their superior access to resources.

Thus while size has been accepted as a main feature in the firm performance debate (Niresh & Velnampy, 2014; Akinyomi & Olagunju, 2013; Cabral & Mata, 2003; Prasetyantoko, A., and Parmono, R 2012), it is not clear how it affects the actual planning performance dynamics. Firm size was thus introduced as a moderator in determining its interaction effect in the relationship between strategic planning and firm performance.

Conceptual Framework:
Strategic Planning Practices

![Conceptual Framework](image)

Regression Results for Effects of Management Participation and Firm Performance

The study used multiple regression analysis to determine the linear statistical relationship between the independent, moderating and dependent variables of the study. Hypotheses of the study were tested using linear regression models. F- test was used to test the validity of the model, while \( R^2 \) was meant to measure the model’s goodness of fit. The regression coefficient was used to describe the results of regression analysis and outline the nature and the relationships.
The regression model of $X_1$ and $Y$ was significant ($F(1,108) = 13.597, p$-value <0.001), management participation is a valid predictor in the model. See Table 1(b). The Coefficient of determination $R^2$ of 0.112 showed that 11.2% of firm performance can be explained by the dimension of management participation in strategic planning. The adjusted $R^2$, explained 11.2%, remaining can be explained by other factors not included in the model. The $R$ of 0.334 shows there is moderately weak positive correlation between extent of management participation in strategic planning and firm performance. The standard error of 0.939 shows the deviation from the line of best fit results are shown in Table 1 (a)

**The study hypothesized**

$Ho_1$: Management Participation has no significant effect on the performance of Kenya’s manufacturing firms.

The results of the survey revealed that there was positive relationship between management participation and performance of manufacturing firms in Kenya ($\beta_1$=5.189, $t$=4.158, $p$-value <0.001). To test the relationship the Regression Model fitted was $Y= \beta_0 + \beta_1X_1+ e$

The null hypotheses ($Ho_1$): management participation has no significant effect on the performance of Kenya’s manufacturing firms or ($Ho_1$: $\beta_1 = 0$) is therefore rejected ($\beta_1$=5.189, $t$=3.687, $p$-value <0.001) and conclude that Management Participation ($X_1$) significantly influences firm performance ($Y$).

The Model equation is $Y = 51.811 + 5.189 X_1$

Where, $Y$ is Firm Performance, $X_1$, is management Participation.

The beta coefficient for management participation was significant ($\beta_1$=5.189, $t$=3.687, $p$-value <0.001). It implies that, One (1) unit increase in the dimension of management participation in strategic planning leads to an increase of 5.189 in firm performance index. This is displayed by Table 1 (a)

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | ANOVA 

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>$F$</th>
<th>Sig.</th>
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<td>1198.459</td>
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<td>Residual</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Total</td>
<td>109</td>
<td>1071.498</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Management Participation

b. Dependent Variable: Firm Performance

$X_1$ = Management Participation; $Y$ = Firm Performance

Table 1 (a) Management Participation and Firm Performance Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
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</thead>
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<td>1</td>
<td>.334$^a$</td>
<td>.112</td>
<td>.104</td>
<td>9.388</td>
<td>.112</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Management Participation

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**Discussion of the findings on the Relationship between Management Participation and Firm Performance**

The Pearson’s Correlation Coefficient for management participation and firm performance ($r = 0.334$, $p$-value $< 0.001$), was significant at 0.05 level of significance. The Regression Analysis results showed that management participation had a moderate influence on firm performance in the manufacturing firms in Kenya. For every unit increase in the extent of management participation in strategic planning, there was a corresponding increase in firm performance index by 5.189. The dimension of management participation in strategic planning positively influences performance among manufacturing firms in Kenya.

This results on the effect of management participation on firm performance have been supported by Gerbing, Hamilton, and Freeman (1994) that management participation enhances the effectiveness of the strategy process. In the study management also include middle management who are involved in operational activities and participate in strategic planning in their firms.

In a related study in Nigeria’s manufacturing firms, it was observed by Kuye and Suleyman (2011) that a significant relationship exists between employee involvement in decision making and firms’ performance and that firms with high employee involvement in decision making outperform firms, with low employee involvement in decision making. There is also enough evidence that workers who participate in making decisions perform better (Chen, & Schaubroeck, 2002). Aosa (1992) reported that companies reporting high managerial involvement were able to successfully implement strategic decisions than those with low involvement. Managers do not only affect individual process of strategic sense making but also, respective team processes.

Bloom (2011) Bloom et al. (2011b) found that, the quality of management practices is positively associated with various measures of firm performance. In particular, an improvement in management practices led to an increase in operating revenue, an increase in profit margins by more than 85 per cent, and an increase in the return on total assets by almost 20 per cent. The study findings also dovetail with the results of, Bloom & Van Reenen et al. (2014) who found that management practices were found to be positively correlated with firm performance and that Management scores were positively and significantly associated with higher productivity, firm size, profitability, sales growth, market value and survival.

The research findings also supports, Ogbeide and Harrington (2009) who found that greater levels of

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<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
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<th>Sig.</th>
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<td>.000</td>
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<td>1 (Constant)</td>
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<td>5.740</td>
<td>.927</td>
<td>.000</td>
<td>1.000</td>
</tr>
<tr>
<td>Management Participation</td>
<td></td>
<td>5.189</td>
<td>1.407</td>
<td>.334</td>
<td>.3687</td>
<td>.000</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Firm Performance
involvement by a variety of management levels was related to greater strategy implementation success and financial performance. Tzempelikos (2015) found that effective key accounts management requires top management commitment to be followed and relationship quality positively affects financial performance. This again lends credence to the findings that management participation in organizational processes such as strategic planning impacts on organizational performance. Nohria et al., (2003) in Gavrea, Ilies, and Stegerean (2011) assert that others have suggested that the leadership is a key element that ensures the connection between the success factors of an organization. Overall, the report finds compelling evidence that better management practices are significantly associated with higher productivity and other indicators of corporate performance, including return on capital employed, sales per employee, sales growth and growth in market share. (Bloom, Dorgan, Dowdy, Rippin and Van Reenen, 2005).


Under hypotheses five, the study sought to establish the moderating effect of firm size on the relationship between strategic planning practices and performance of manufacturing firms. Firm Size was based on number of employees in the firm. Firms were classified into Small and Medium size enterprises (SMEs) and large establishments. The researcher applied multiple regression analysis to find out the influence of firm size on the relationship between strategic planning and performance of the manufacturing firms in Kenya. The Regression results and findings are discussed. To test the moderation, each of the study variables were examined individually against firm size (moderator) as a predictor and also with the interaction term. The moderating effects of firm size on the joint relationship between strategic planning practices and firm performance was also tested in the overall model.


Under this section regression analysis was run in order to validate whether firm size influenced the relationship between management participation and firm performance. The study hypothesized that:

$Ho_2$: Firm Size has no significant moderating effect on the relationship between management participation and performance of Kenya’s manufacturing firms.

To test the hypotheses the following models were fitted:

Model 1: $Y = \beta_0 + \beta_1 X_1 + e$

Model 2: $Y = \beta_0 + \beta_1 X_1 + \beta_m M + e$

Model 3: $Y = \beta_0 + \beta_1 X_1 + \beta_m M + \beta_1M X_1 + \beta_1MX_1 + \beta_1M X_1 + e$

The three models were all significant (p-value< 0.001 in all the three cases), Table 1(b) refers. The Coefficient of Determination ($R^2$) for the first model was .121, see Table 1(a) meaning that management participation, on its own, contributed 12.1% to the change in the performance of the manufacturing firms. However, the nature of this relationship between management participation and the performance of Kenya manufacturing firms changed significantly with the introduction of firm size a predictor. Table 1(a) indicates that the $R^2$ before the introduction of firm size was .121. However, upon the introduction of Firm Size as a predictor, the $R^2$ significantly changed from .121 (12.1%) to .157 (15.7%) an increase of 0.36. This means that management participation with Firm Size can, explain up to 15.7 % of the performance of Kenyan manufacturing firms. With addition of the
interaction term \((X_1 \times M)\), the model further improved albeit marginally to \(R^2\) of .175, an increase of 0.19, however the model became negative and insignificant (p-value=0.144).

On the moderating effect of \(M\) on the relationship between \(X_1\) and \(Y\), all the three models were found to be significant (p-value, <0.001, p-value, <0.001; and p-value<0.001 respectively). The F Change for \(X_1\) was significant (F Change=13.352, p –value, <0.001), implying that, \(X_1\) significantly influences \(Y\) as discussed earlier.

On adding \(M\) (Firm Size) as a predictor to the model containing \(X_1\), the F Change reduced substantially but was still significant (F Change=4.050, p–value = 0.047). With the introduction of the interaction term \((X_1M)\) to this model, the model deteriorated and became insignificant, revealing (F Change =2.172, p–value=0.144). This implied that \(M\) (Firm Size) has some predictive value but does not moderate the relationship between management participation \((X_1)\) and firm performance \((Y)\).

The equation of the models is as follows:

**Model 1:** \(Y= 72.612+5.303 \times X_1\)

**Model 2:** \(Y= 69.570+5.619 \times X_1+4.237 \times M\)

**Model 3:** \(Y= 69.570+5.619 \times X_1+4.237M-5.356 \times X_1M\)

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### Table 2. The Moderating Effect of Firm Size on the Relationship between management participation and Firm Performance.

<table>
<thead>
<tr>
<th>Model</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>R Square Change</th>
<th>F Change</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
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<td>1</td>
<td>.348(^a)</td>
<td>.121</td>
<td>.112</td>
<td>.121</td>
<td>13.352</td>
<td>1</td>
<td>97</td>
<td>.000</td>
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<tr>
<td>2</td>
<td>.396(^b)</td>
<td>.157</td>
<td>.139</td>
<td>.036</td>
<td>4.050</td>
<td>1</td>
<td>96</td>
<td>.047</td>
</tr>
<tr>
<td>3</td>
<td>.419(^c)</td>
<td>.175</td>
<td>.149</td>
<td>.019</td>
<td>2.172</td>
<td>1</td>
<td>95</td>
<td>.144</td>
</tr>
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</table>

a. Predictors: (Constant), \(X_1\)

b. Predictors: (Constant), \(X_1\), Firm Size

c. Predictors: (Constant), \(X_1\), Firm Size, \(X_1M\)

---

### ANOVA

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<tr>
<th>Model</th>
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## Coefficients

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<th>Model</th>
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<th>Sig.</th>
<th>Collinearity Statistics</th>
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<tr>
<td></td>
<td>X1</td>
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<td>.348</td>
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<tr>
<td>2</td>
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<td>X1</td>
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<td></td>
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a. Dependent Variable: Firm Performance


The beta for Management participation in Model 1 was 5.303 (β=5.303, t= 3.654, p-value<0.001), that is management participation alone contributed, 5.303 to performance of firms. In Model 2, when firm size was combined with management participation and firm performance, the beta improved marginally from (β=5.303, t=3.654, p-value<0.001) to (β=5.619, t=value=3.908, p-value <0.001) hence statistically significant. Firm
size beta was ($\beta = 4.237$, $t=2.012$, $p$-value =0.047) It was concluded that firm size as a predictor, was significant in the model. In Model 3, the introduction of the interaction term ($X_1*M$) saw an enhanced beta for management participation ($\beta=9.946$, $t=3.046$, $p$-value=0.003). This was found to be positive and significant. With the addition of the interaction term, it was observed that, firm size was also enriched and revealed positive and significant results ($\beta=4.693$, $t=2.218$, $p$-value=0.029). However, the interaction term($X_1*M$) showed negative and insignificant effects ($\beta= -5.356$, $t= -1.474$, $p$-value=0.144). This validated the views that firm size does not moderate the relationship between management participation and firm performance in the manufacturing firms in Kenya and in some context has negative effects on firm performance. This findings support those of Amato and Burson (2007) in Pervan and Višić (2012) who tested size-profit relationship for firms operating in the financial services sector and found the link statistically insignificant. Becker-Blease, Kaen and Etebari (2010) concluded the relationship between size and profitability was industry specific. The results is somewhat surprising given that a number of studies (Pagano and Schivardi, 2003; Abbasi & Malik, 2015; Acquaah and Agyapong, 2015) have supported the role of firm size in enhancing firm performance. However, Elbanna (2008) has refuted these arguments and showed empirical evidence that management participation has insignificant relationship to strategic planning effectiveness. He further explained that this could be as result of other factors which may moderate the relationship between management participation and strategic planning effectiveness including the cultural context in which planning is being implemented.

**Conclusion and Suggestions for further research**

The study endeavoured to determine the possible linkage between management participation in strategic planning in the manufacturing firms in a developing country context. Management participation was found to be positively associated with both financial performance parameters and non-financial measures off firm performance based on the Balanced Score card framework. This implies that top and middle management combined have the influence of turning around the fortunes of affirm by providing strategic leadership and taking lead in implementation of strategies. middle management hold the keys to operational efficiency of the firm, which ultimately translates to enhanced company performance.

As suggested by Namada et al, (2014) management participation is a complex phenomenon that is influenced by greater internal and external dynamics. Future research should investigate the possible moderation by not only firm size but also, by other realities, type of ownership, the age of the firm and legal and regulatory issues from industry regulators and government among others.
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