
DBA AFRICA MANAGEMENT REVIEW

VOLUME 10 NO 4

2020

EFFECT OF ENVIRONMENTAL DYNAMISM ON
ORGANIZATIONAL AMBIDEXTERITY AND
PERFORMANCE OF LARGE MANUFACTURING
FIRMS IN KENYA



PATRICK M. MUTISYA
PROF. PETER K'OBONYO
DR. KENNEDY OGOLLAH
PROF. JAMES M. NJIHIA

*A Quarterly publication of the Department of Business Administration,
School of Business,
University of Nairobi*

ISSN NO: 2224-2023

DBA Africa Management Review

Received Date

21/10/2020

Accepted Date

20/11/2020

EFFECT OF ENVIRONMENTAL DYNAMISM ON ORGANIZATIONAL AMBIDEXTERITY AND PERFORMANCE OF LARGE MANUFACTURING FIRMS IN KENYA

Patrick M.Mutisya¹, Prof.Peter K'Obonyo², Dr Kennedy Ogollah³, Prof. James M.Njihia⁴

Abstract

The study sought to examine the effect of environmental dynamism on the relationship between organizational ambidexterity and performance of large manufacturing firms (LMFs) in Kenya. The studies linking ambidexterity to organizational performance are scanty and with mixed findings. The research was founded on dynamic capabilities and contingency theories. Based on the literature review, a conceptual model and hypotheses were formulated to guide the study. Positivism philosophy provided foundation for the research. The population of the study comprised all the 107 large manufacturing firms in Kenya. A census survey was adopted. Data was collected across the large manufacturing firms in Kenya. A structured Likert type questionnaire was used to collect the primary data in respect of predictor variables. The respondents were the senior managers of the large manufacturing firms in Kenya; namely Chief Executive Officers/Managing Directors(CEOs/MDs or General Managers(GMs), or Heads of departments(HODs). Data was analyzed using descriptive statistics, correlations analyses, and regression models. The research results revealed no significant moderating effect of environmental dynamism on the influence of organizational ambidexterity on the performance of large manufacturing firms in Kenya.

Keywords: Organizational ambidexterity, Moderating effect, Environmental Dynamism, Performance, Large Manufacturing firms in Kenya

¹ 1PhD Candidate, Department of Business Administration - School of Business, University of Nairobi, Nairobi – Kenya.
pmmutisya@hotmail.com

² Department of Business Administration - School of Business, University of Nairobi, Nairobi -

³ Department of Business Administration - School of Business, University of Nairobi, Nairobi - Kenya

⁴ Department of Management Science - School of Business, University of Nairobi-Kenya

Introduction

The consensus is increasing among scholars that organizational ambidexterity is important for business sustainability but it is not easily achievable (O'Reilly & Tushman, 2008). The exploitative and explorative activities in ambidexterity exhibit opposing features, and require diverse structural designs and supportive organizational contexts (Raisch & Birkinshaw, 2008). The resultant tensions and potential intra-organizational conflict may require trade-offs, often resulting in organizations favouring one activity at the expense of the other, thus making organizational ambidexterity difficult (Ghemawat & Costa, 1993). Further, the contingency perspective recognizes that organizational ambidexterity influence on performance is subject to external factors, including environmental dynamism (Lawrence & Lorsch, 1967). Although research has been conducted on organizational ambidexterity moderators, researchers have not adequately confirmed the nature of environmental dynamism effect on the performance of organizations (Tamayo -Torres, Roehrich & Lewis, 2017).

The Kenyan manufacturing sector has great prospects for spurring growth in other sectors, including export and is one of the government's "Big Four agenda" pillars towards the attainment of Vision 2030 (GOK, 2018). However, the manufacturing sector GDP contribution declined from 10% in 2014 to 7.8% in 2018, while its growth is erratic; 2.5% in 2014, 3.6% in 2015, 3.1% in 2016, 0.7% in 2017 and 4.3% in 2018 (KNBS, 2019). The declining and erratic manufacturing firms' performance compounded by a fast-changing business environment curtails their ability to maximize current business potential and

keep pace with environmental changes through innovation, thus threatening their survival. The declining performance also suggests that the strategies deployed have not been effective in enhancing performance.

The environmental changes and competition in the sector may require organizational ability to be ambidextrous. This suggests that the manufacturing sector's performance may be influenced by its capacity for ambidexterity. However, it is not clear whether and how organizational ambidexterity influences the performance of Kenya's large manufacturing firms (LMFs). Also, there are limited studies conducted on organizational ambidexterity in the Kenyan manufacturing sector.

Despite the theoretical ambidexterity-organizational performance nexus, empirical studies testing this relationship are scanty and have yielded inconsistent results (Junni, Sarala, Taras & Tarba, 2013). Whereas some studies (Tamayo-Torres, et al., 2017) reported positive ambidexterity -organizational performance relationship, Venkatraman, Lee and Lyer (2007) did not find a direct relationship. Popadic, Cerne & Milohnic (2015) reported negative effects. This inconsistency in the findings suggests that there may be other factors mediating or moderating the relationship.

Studies on environmental dynamism moderating effect on the organizational ambidexterity-performance relationship have reported inconsistent findings. Whereas some studies (Tamayo-Torres et al., 2017; Girod & Whittington, 2017; and Halevi, Carmeli & Brueller, 2015) reported environmental dynamism positive moderating effect, Mwazumbo (2016) reported negative moderating effects. The above empirical studies have reported inconsistent results on the organizational

ambidexterity, environmental dynamism, and organizational performance relationships. Overall, there thus exist conceptual, contextual, and methodological gaps. Therefore, this study seeks to answer the question; what is the effect of environmental dynamism in the relationship between organizational ambidexterity and performance of organizations?

Literature Review

Organizational Ambidexterity

Duncan (1976) pioneered the concept of organizational ambidexterity, defining it as the capability of an organization to be simultaneously aligned and adaptive. In this study, the definition adopted is the capacity of the organization to simultaneously exploit and explore (Patel, Messersmith & Lepak, 2013). Organizational ambidexterity is critical for enduring organizational success and survival, but also difficult to attain (Ghemawat & Costa, 1993).

In addition, empirically tested research findings on organizational ambidexterity and performance relationship are scanty and inconclusive (Junni et al., 2013). Some studies; Hill and Birkinshaw (2014), Fu, Flood, and Morris (2016), and Tamayo-Torres et al. (2017) reported positive organizational ambidexterity effect on organizational performance. On the other hand, there were also studies that established negative organizational ambidexterity influence on performance. These include studies by Popadic et al. (2015) and Ebben and Johnson (2005). Further, studies by Venkatraman et al. (2007) established no relationship between organizational ambidexterity and performance. These mixed findings implies that other factors mediate or moderate the relationship. However, empirical studies on

environmental dynamism moderating effect on the ambidexterity - performance relationship have reported mixed results (Tushman & O'Reilly, 1996).

Environmental Dynamism

Among the broadly studied strategic management concepts is environmental dynamism. It denotes the extent and instability of variation of the organization's macro- environment, characterized by the environment's volatility and unpredictability (Dess & Beard, 1984). Accordingly, organizations can be located on an environmental scale from stable to dynamic, with stable environments depicted by infrequent changes, while highly dynamic environments have rapid and discontinuous changes (Zhou & Wu, 2010).

The construct is important due to its influence on relations among several firm-level concepts; for example the organization's structural design (Lawrence & Lorsch, 1967), strategic management process (Prajogo, 2016), and performance outcomes (Keats & Hitt, 1988). The increased uncertainty, unclear relationships, and inappreciable future constrain effectiveness and timeliness in decision making; hence performance (Eisenhardt, 1989). Strategy scholars recognize environmental dynamism significance and hold that no single strategy is appropriate to all situations, hence organizations have to embrace diverse plans to align to the dynamic business environment (Mintzberg, 1979). According to Raisch and Birkinshaw (2008) exploitative and explorative activities in ambidexterity exhibit opposing features, and require supportive organizational contexts, including environmental dynamism. This study seeks to establish environmental dynamism effect on organizational ambidexterity and performance relationship.

Organizational Environmental Performance, Ambidexterity, Dynamism, and

Environmental dynamism is an environmental characteristic and denotes the degree and volatility of variation in an entity's macro - environment (Dess & Beard, 1984), with attributes such as technological fluctuations, consumer preferences, and inputs supply (Jansen, Tempelaar, Van den Bosch & Volberda, 2009). The implication is that it determines certainty and predictability, which affect decision making and performance. These suggest a relationship between environmental dynamism and organizational performance (Volberda & Lewin, 2003).

Researchers have reported mixed findings on ambidexterity - environmental dynamism relationship and therefore performance. In their study, Halevi et al. (2015) found significant environmental dynamism moderating effect on Top Management Team (TMT) behavioural integration influence on ambidexterity. However, findings generalization is limited due to methodological challenges of common method bias. Empirical study findings by Ebben and Johnson (2005) suggest positive ambidexterity - firm performance relationship under environmental dynamism conditions. Girod and Whittington (2017) study of reconfiguration and restructuring, dynamic capabilities and environmental dynamism roles on firm performance found a positive environmental dynamism moderating effect on reconfiguration - firm performance and negative environmental dynamism effect on restructuring - firm performance relationships. However, the study used economic performance measures only.

Tamayo-Torres et al. (2017) studied environmental dynamism and organizational ambidexterity effect on manufacturing performance and reported stronger manufacturing performance-organizational ambidexterity association in relatively dynamic environments, compared to that in steady and very dynamic environments, where the association was weaker. However, the study used operational parameters of quality, speed, and cost in performance measurement. Mwazumbo (2016) "Organizational resources, dynamic capabilities, environmental dynamism, and performance of large manufacturing companies in Kenya" research reported environmental dynamism does not significantly influence organizational resources-dynamic capabilities relationship. However, the study used organizational resources as independent variable and not ambidexterity as used in the current study. In aggregate, these studies suggest an external environment contingency impact on the ambidexterity effect on firm performance. Further, these suggests environmental dynamism moderating effect on performance. The current research assesses how environmental dynamism moderates the ambidexterity effectiveness.

Dynamic Capabilities Theory

Dynamic Capabilities Theory (DCT) was proposed by Teece, Pisano, and Shuen (1997) and extends Resource-Based View and focuses on capabilities deployed by firms for competitive advantages by enhancing the firm's sensing effectiveness and external environment dynamics adaptation seizing capability. Dynamic capabilities theory places emphasis on competitive survival in reaction to business environmental dynamism through dynamic

capabilities deployment (Eisenhardt & Martin, 2000). Dynamic capabilities entail an organization's integration, building internal and external competencies, reconfiguration capabilities and include business practices, molded by the organization's asset base support, and growth cycle (Helfat & Peteraf, 2003). They are typically the managerial activities of sensing, seizing and reconfiguring, that can make a capability dynamic (Teece, 2007).

Sensing entails the environmental scanning capability of an organization (Teece, 2007) from which opportunities are recognized, and competitive threats identified (Helfat & Peteraf, 2015). Seizing on the other hand refers to formulation and execution of appropriate organizational strategies for the exploitation of opportunities and eluding any threats, in line with its strengths and weaknesses (Teece, 2007). Strategic renewal will require organizational design reconfiguration (Teece, 2007).

Organization's capacity to concurrently undertake exploration and exploitation activities is organizational ambidexterity (O'Reilly & Tushman, 2008). Exploration relates to activities such as novelty, search, discover and change; which is similar to sensing, which is characterized by increased research activities. Exploitation in the contrary entails organizational processes, including production and through-put enhancement, implementation and monitoring; similar to seizing. Organizational ambidexterity is linked to better performance, therefore, makes the concept part of the dynamic capabilities.

Scholars have questioned what constitutes dynamic capabilities and their source(s) (Easterby-Smith, Lyles & Peteraf, 2009). Lacking also is clarity on industry-specific dynamic capability building processes (Gregory & Pemberton, 2011). Further, a

consensus is lacking among researchers on its conceptualizations, measurements, and interpretation (Peteraf, Di Stefano, & Verona, 2013). Varied perspectives have consequently been advanced and there exists no universal definition (Zollo & Winter, 2002). This, therefore, calls for further theoretical work to show how firms get to improve (Teece, et al., 1997). This will be clarified through the organizational ambidexterity- performance influence.

Contingency Theory

Contingency theory is an outgrowth of systems design; the so-called universal approach. Based on the open systems view, Donaldson (2001) the proposer of the theory stresses a no "one-fits-all" approach in strategizing. Instead, the optimal strategy is dependent upon the internal and external situation, with emphasis on striking an optimal balance in adapting to external environment changes and satisfying the needs in its internal processes, through alignments and optimal fits. The theory thus supports the concept of external environment (Lawrence & Lorsch, 1967), and its pertinent characteristics, including environmental dynamism (Dess & Beard, 1984).

The theory demonstrates the need to align organizational internal elements (such as strategy) to different organizational circumstances (Venkatraman & Prescott, 1990). Organizational-environmental alignment determines performance (Prajogo, 2016). Contingency theory argues that outcomes are subject to certain variables. It is therefore relevant as the research aimed to determine environmental dynamism effect on the organizational ambidexterity influence on organizational performance.

Despite its demonstrated usefulness in research, there are theoretical and empirical challenges to it. The contingency theory has been criticized as being too mechanical in the study of the organizational design (Galunic & Eisenhardt, 1994). Its practical application is doubtful as critics have questioned the organizations - contingencies fit rationale (Donaldson, 2001). Also, the consensus is lacking in contingency - fit conceptualization, with some scholars adopting configuration logic (Hill & Birkinshaw, 2008), while others adopt a Cartesian approach (Meyer, Allen & Smith, 1993). These will be clarified through the proposed environmental dynamism moderating effect on the organizational ambidexterity - organizational performance relationship.

Conceptual Framework

The relationship between the three variables under study is shown in Figure 2.1 (conceptual model) below. The variables are organizational ambidexterity, environmental dynamism, and performance of large manufacturing firms. Organizational ambidexterity and performance are the independent and dependent variables, respectively. Environmental dynamism is conceptualized to moderate because the organization operates within an open environmental system.

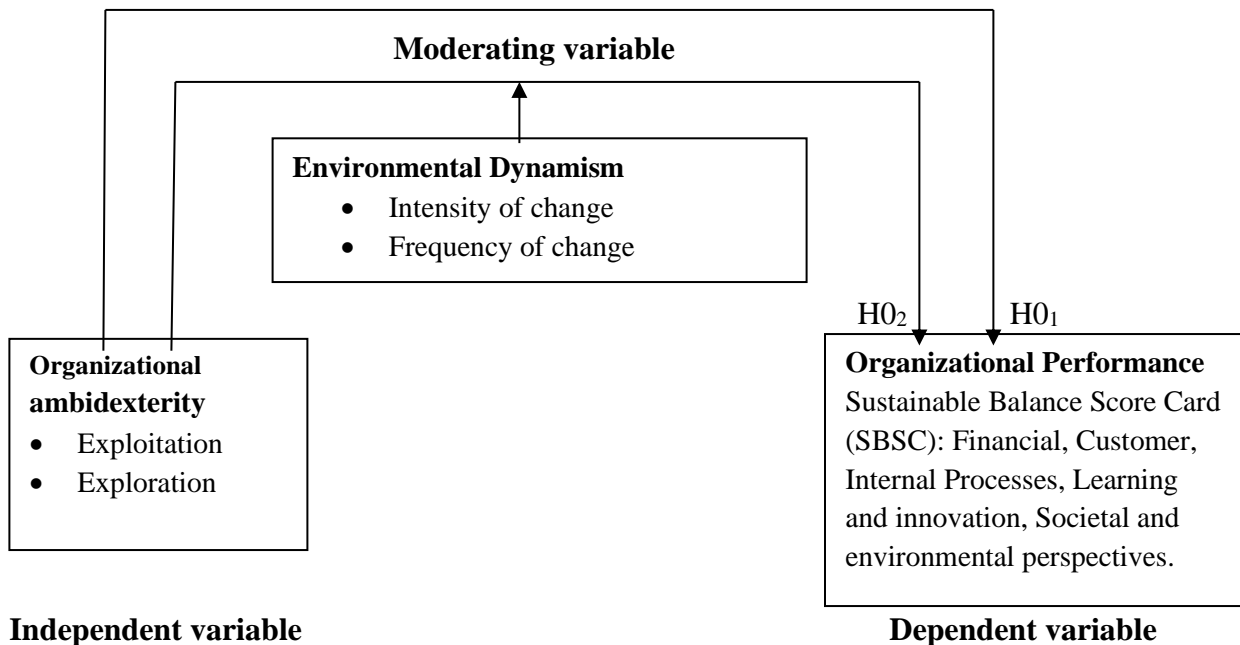


FIGURE 2.1: CONCEPTUAL MODEL

Source: Researcher (2019)

Operationalization of the Study Variables

The study's independent variable, organizational ambidexterity was measured using exploration and exploitation variables. A combined perspective was applied, in which the two activities are considered orthogonal, but complementary, based on which ambidexterity was studied as the summed-up outcome (Blindenbach-Driessen & Ende, 2014). The measure reliably predicts the ambidexterity synergistic effect and was adapted from Hill and Birkinshaw (2014) in whose similar operational approach it was used.

Environmental dynamism which is the moderating variable was operationalized and measured in terms of the perceived intensity and frequency of change; as evidenced by changes such as, product demand/profitability, and technology (Miller, 1987; Zhou & Wu, 2010). The dependent variable organizational performance, which was measured by adopting measures of performance from sustainable balanced scorecard(SBSC) by Hubbard (2009) that considers six indicators of performance; financial, internal processes, customer satisfaction, learning, and innovation, societal and environmental perspectives, using Likert-scale instrument adopted with modifications from Hubbard (2009).

Research Hypothesis

The following is the hypothesis (stated in null):

H0₂: Environmental dynamism has no significant moderating effect on the influence of organizational ambidexterity on the performance of manufacturing firms in Kenya.

Study model

The hypothesis testing was guided by the following model:

Moderating effect of environmental dynamism on the influence of organizational ambidexterity on organizational performance using Step-wise regression analysis (3-Step):

Based on Organizational performance as a composite of the SBSC perspectives:

Equations:

$$OP = \beta_0 + \beta_1 OA + \epsilon M_0 \dots\dots\dots(1)$$

$$OP = \beta_0 + \beta_1 OA + \beta_2 XED + \epsilon M_1 \dots\dots\dots(2)$$

$$OP = \beta_0 + \beta_1 OA + \beta_2 ED + \beta_3 (OA * ED) + \epsilon M_2 \dots\dots\dots(3)$$

Where:

OP = Aggregate mean score (composite) of Organizational Performance perspectives

$\beta_0, \dots, \beta_3; \beta_1, \dots, \beta_3$ are regression coefficients

OA = Aggregate mean of the combined individual Organizational Ambidexterity indicators

ED = Aggregate mean of the combined individual Environmental Dynamism indicators

OA*ED = Interaction term

$\epsilon M_0, \dots, \epsilon M_2$ = Error term.

Research Methodology

The person conducting the research in the study was independent of the research objects, hence the study's adoption of the deductive approach. Moreover, the researcher concentrated on facts. The study also had predefined hypotheses and it was for theory testing. The study was therefore grounded on the positivist philosophy. The spot-on information obtained informed the

research problem conclusions, thus the cross-sectional survey suitability. This design helps in the outcomes generalization to a bigger population of organizations rather than the few that participated in the study.

The study was a census, with the population being all the 107 Kenyan large manufacturing firms (LMFs). KAM (2018) classifies manufacturing companies with 50 and above employees and annual sales turnover of Kshs 1 Billion and above as large. The study collected primary and secondary data. Questionnaires were adapted from strategic management studies. These were modified to align with the current study objectives. The questionnaire was delivered to the respondents, that is either Managing Directors/Chief Executive Officers (MDs/CEOs) or General Managers (GMs) or Heads of department (HODs) of Finance, Sales and Marketing, Human Resources and production. The questionnaire administration was by dropping and picking or sending by e-mail in cases where firms' e-mail addresses had been provided in the Kenya Association of Manufacturers (KAM) directory or in accordance with the preference of the respondents.

Validity tests were done to confirm that the questionnaire measured what it purported to measure and thus the accuracy of the inferences, while reliability tests ensured the consistency of the results yield from the instrument's repeated trials and the measurement (Cooper & Schindler, 2014). The study used the Likert-type scale where the participants were required to respond by choosing one option from statements usually given in five degrees of agreement or disagreement.

Data Analysis and Results

Response Rate

The study used a cross-sectional design, with population including all the 107 LMFs in Kenya (KAM, 2018). Out of the 107 firms, five (5) firms were used for the pilot study. The five (5) pilot study firms were excluded in the final questionnaire participation, therefore 102 questionnaires were sent out for the final study. Out of the 102 questionnaires completed and returned, four (4) questionnaires were incomplete and therefore rejected for analysis, leaving 98 questionnaires used for analysis. This is a 96 percent response from the target population of 102 LMFs. Awino and Gituro (2011) recommended that in similar studies, a questionnaire feedback rate of above 65 percent is satisfactory. This study therefore considers the 96% response rate adequate. A high response rate is satisfactory as these yield results can be better inferred to a population.

Test of Hypothesis

The general objective of this research was to establish the role of environmental dynamism in the organizational ambidexterity - performance relationship of LMFs in Kenya. This was actualized by testing the hypothesis (stated in null form) that: Environmental dynamism has no significant moderating effect on the influence of organizational ambidexterity on performance of large manufacturing firms in Kenya.

Step - wise (3-step) regression analysis (Baron & Kenny, 1986) was applied in the hypothesis testing. The first step entailed testing the influence of organizational ambidexterity on organizational performance. Step two involved testing the effect of both organizational ambidexterity (predictor variable) and moderating

variable (environmental dynamism) on the criterion variable (organizational performance). An interaction variable was introduced and tested for its significance on criterion variable (organizational performance, in step three. The interaction term is computed as the product of

standardized values of the independent variable (organizational ambidexterity) and moderator variable (environmental dynamism). The test was done on performance measured as a composite of the SBSC perspectives. The findings are presented in Table 4.1.

TABLE 4.1: REGRESSION RESULTS FOR THE MODERATING EFFECT OF ORGANIZATIONAL AMBIDEXTERITY IN THE RELATIONSHIP BETWEEN ORGANIZATIONAL AMBIDEXTERITY AND PERFORMANCE OF LARGE MANUFACTURING FIRMS IN KENYA

Model Summary						
Model	R	R Square	Adjusted R Square			Std. Error of the Estimate
1	.589 ^a	.347	.341			.16877
2	.589 ^a	.347	.334			.16965
3	.592 ^a	.351	.330			.17014
ANOVA ^a						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.455	1	1.455	51.100	.000 ^b
	Residual	2.734	96	.028		
	Total	4.190	97			
2	Regression	1.455	2	.728	25.284	.000 ^b
	Residual	2.734	95	.029		
	Total	4.190	97			
3	Regression	1.469	3	.490	16.910	.000 ^b
	Residual	2.721	94	.029		
	Total	4.190	97			
Coefficients ^a						
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	
	B	Std. Error	Beta			

1	(Constant)	1.994	.265		7.537	.000
	Organizational Ambidexterity	.494	.069	.589	7.148	.000
2	(Constant)	1.993	.396		5.038	.000
	Organizational Ambidexterity	.494	.070	.589	7.071	.000
	Environmental Dynamism	.000	.070	.000	.002	.999
3	(Constant)	4.817	4.213		1.143	.256
	Organizational Ambidexterity	-.231	1.079	-.276	-.214	.831
	Environmental Dynamism	-.753	1.121	-.897	-.672	.503
	Organizational Ambidexterity, Environmental Dynamism Interaction	.193	.287	1.180	.673	.503

Model 1: Predictors (Constant), Organizational Ambidexterity.

Model 2: Predictors (Constant), Organizational Ambidexterity, Environmental Dynamism.

Model 3: Predictors (Constant), Organizational Ambidexterity, Environmental Dynamism and Interaction term.

Criterion Variable: Organizational Performance.

Source: Research Data (2019)

In step one organizational ambidexterity was regressed on organizational performance. The results in Table 4.1 indicate R^2 of 0.347, meaning that 34.70 per cent of organizational performance is explained by organizational ambidexterity, the rest (65.30 percentage) is accounted for variables not in the current study's scope. The F-value ($F= 51.100$) significance ($p<0.05$) indicates the model attainment of the desired robustness and fit, therefore suitability for use in the data analysis for this study. Further, the beta coefficient was

statistically significant ($\beta=0.589$, $t=7.148$, $p<0.05$) and therefore the significance of the model predictive power. The results of step one are significant

The step two in evaluating the moderating effect involves entry of the moderating variable in the regression. The results of entering environmental dynamism in the regression model are shown in Table 4.1. When the moderator variable was introduced in step two, there was no significant improvement in the organizational ambidexterity influence on organizational performance which

remained the same $R^2=0.347$ meaning that 34.70 per cent of organizational performance is explained by organizational ambidexterity and environmental dynamism together, the rest (65.30 per cent) is accounted for by variables outside the current study's scope. Also the overall model was statistically significant ($F=25.284$, $p<0.05$). The change in F-value from 51.100 to 25.284 with the introduction of environmental dynamism (moderator variable) was significant. Similarly, the beta coefficients were statistically significant ($\beta=0.589$, $t=7.071$, $p<0.05$) for organizational ambidexterity effect with the introduction of environmental dynamism whose effect was insignificant ($\beta=0.000$, $t=0.002$, $p>0.05$).

The third and final step of the moderation effect testing entails the interaction term entry in the regression model. The product of organizational ambidexterity and environmental dynamism (organizational ambidexterity * environmental dynamism) is the interaction term. All the variables (independent variable, moderating and the interaction term) are entered into the regression model, one after the other. Multiple regression analysis was used in the interaction outcome evaluation. Table 4.1 presents the output of entering the interaction term in the regression model. The step three overall model outcome indicates that the interaction was statistically significant ($F=16.910$, $p<0.05$), an indication of the models robustness and fit, therefore usefulness in the analysis of data for this study. The results revealed a minimal R^2 improvement of 0.004 (that is from $R^2=0.347$ in step two to $R^2=0.351$ in step three). The minimal R^2 change of 0.40 per cent implies that there was no significant influence on organizational performance (dependent variable) from the organizational ambidexterity (independent

variable) interaction with environmental dynamism (moderating variable). The beta coefficients revealed no improvement. The results indicate ($\beta=0.589$, $t=7.071$, $p>0.05$) before introduction of the interaction term to ($\beta=-0.276$, $t=-0.214$, $p>0.05$) with the interaction term inclusion in the regression model. The results therefore did not provide evidence to justify the null hypothesis rejection. Therefore, the study concludes that environmental dynamism has no significant moderating effect on the organizational ambidexterity influence on the performance of Kenyan LMFs.

Discussion of Findings and Conclusion

The study aimed to evaluate the environmental dynamism influence in the organizational ambidexterity - performance relationship of LMFs in Kenya. The results indicate that environmental dynamism has no significant moderating effect on the influence of large manufacturing firms in Kenya.

The study findings affirm earlier studies that reported no significant moderating effect of environmental dynamism. Tamayo-Torres et al. (2017) studied environmental dynamism and organizational ambidexterity effect on manufacturing performance and reported stronger manufacturing performance - organizational ambidexterity association in relatively dynamic environments, compared to that in steady and very dynamic environments, where the association was weaker. Girod and Whittington (2017) study of restructuring, dynamic capabilities and environmental dynamism roles on firm performance reported negative environmental dynamism moderating effect on restructuring - firm performance relationships. In the study on organizational resources, dynamic capabilities, environmental dynamism and

performance of Kenyan large manufacturing companies, Mwazumbo (2016) reported environmental dynamism does not significantly influence organizational resources-dynamic capabilities relationship.

The findings of this study contrast previous empirical findings by similar studies, which reported significant environmental dynamism moderating effect on organizational ambidexterity - performance association. In their study, Halevi et al. (2015), found significant environmental dynamism moderating effect on Top Management Team (TMT) behavioural integration on ambidexterity. Also, positive environmental dynamism moderating effect on reconfiguration – firm performance was established in the study of reconfiguration, dynamic capabilities and environmental dynamism roles on firm performance by Girod and Whittington (2017). The current study reported that environmental dynamism has no significant moderating effect on the influence of organizational ambidexterity on performance of LMFs in Kenya. This suggests that consensus is still lacking among researchers on environmental dynamism effect on various firm-level factors.

Conclusion and Recommendations

The study concludes that organizational ambidexterity influence on organizational performance is not significantly affected by environmental dynamism. The study also concludes that organizational ambidexterity positive impact on organizational performance is not affected by environmental dynamism. Further, this leads to another conclusion that organizational ambidexterity is desirable if an organization is to attain enhanced performance, even in dynamic environments.

The study enhances the literature on the association between environmental dynamism and other factors on the performance of organizations, by exploring the moderating impact on the Kenyan LMFs' organizational ambidexterity - performance relationship. This is a contribution in addressing the assertion that researchers have not adequately affirmed the nature of environmental dynamism effect on the organizational ambidexterity - environmental alignment (Tamayo –Torres et al., 2017). The results indicate no significant moderating effect of environmental dynamism on the influence of organizational ambidexterity on performance of LMFs in Kenya.

Suggested Areas for Further Study

The data in this research was collected from a single source. One senior manager (General Manager or Head of department) provided the data by responding to the questionnaire which covered the various variables of the research. Relying on a response from one person in a big organization may have some limitations; such as single source and social desirability bias. Future researchers should involve more people across the management hierarchy and in different settings such as focus groups.

The variables in the research may be operationalized and measured differently by diverse researchers given the significance of the condition at hand. Environmental dynamism may be tested as mediating variable having been found to have no significant moderating effect in the association between organizational ambidexterity and firm performance. Also, there is need to test empirically what would be the combined effect if environmental dynamism is an independent variable rather than moderating variable. Studies can also

be done but considering other contingent factors beyond the environmental dynamism. Future research should consider research specific components of organizational ambidexterity, environmental dynamism and organizational performance, as this may provide more distinct results in terms of specific variables that should be given more focus.

This study was based on Kenyan LMFs. Future researchers should consider replication in other African countries to determine the similarities or differences. Also, research should be conducted in Kenyan small and medium manufacturing enterprises. Further, a comparative study, replicating this study in a big population covering many industries should be considered. Such large population would be a useful extension of this study and would further enrich the current findings.

Acknowledgements

I wish to convey my special sincere appreciation to my supervisors, Prof. Peter K'Obonyo, Dr. Kennedy Ogollah and Prof. James M. Njihia for their fabulous support, guidance and encouragement as I did this study. I would like to acknowledge them for being patient with me during the many hours of consulting them that enabled me to reach the final stages of the study. The many hours they spent assessing, improving and giving me wise counsel on how to proceed have enabled to get this far.

References

Awino, Z.B. & Gituro, W. (2011). An Empirical Investigation of Supply Chain Management Best Practices in Large Private Manufacturing Firms in Kenya. *Prime Journal of Business Administration and Management*, 1(2), 25-30.

Baron, R.M & Kenny, D.A. (1986). The Moderator-Mediator Variable Distinction in Social

Psychological Research: Conceptual, Strategic, and Statistical Considerations. *Journal of Personality and Social Psychology*, 51(6), 1173-1182.

- Blindenbach-Driesen, F. & Ende J. (2014). The Locus of Innovation: The Effect of a Separate Innovation Unit on Exploration, Exploitation, and Ambidexterity in Manufacturing and Service Firms. *Journal of Product Innovation Management*, 31(5), 1089-1105.
- Cooper, D. R. & Schindler P. S. (2014). *Business research methods (12th Edition)*: McGraw-Hill Irwin.
- Dess, G.G. & Beard, D.W. (1984). Dimensions of organizational task environments. *Administrative science quarterly*, 52-73.
- Donaldson, L. (2001). *The contingency theory of organizations*. Sage Publications.
- Duncan, R. B. (1976). The ambidextrous organization: Designing dual structures for innovation. *The management of organization*, 1, 167-188.
- Easterby-Smith, M., Lyles, M.A. & Peteraf, M. A. (2009). Dynamic Capabilities: Current Debates and Future Directions. *British Journal of Management*, 20(1), 1-8.
- Ebben, J. J. & Johnson, A. C (2005). Efficiency, flexibility, or both? Evidence linking strategy to performance in small firms. *Strategic Management Journal*, 26(13), 1249-1259.
- Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management journal*, 32(3), 543-576.
- Eisenhardt, K. M. & Martin, J. A. (2000). Dynamic capabilities: what are they? *Strategic management journal*, 1105-1121.
- Fu, N., Flood, P.C. & Morris, T. (2016). Organizational Ambidexterity and Professional Firm Performance: The Moderating role of Organizational Capital. *Journal of Professions and Organizations*, 3, 1-16.
- Galunic, D. C., & Eisenhardt, K. M. (1994). Reviewing strategy-structure performance

- paradigm. *Organization Behavior*, 16, 215-255.
- Ghemawat, P. & Ricart Costa, J. E. (1993). The organizational tension between static and dynamic efficiency. *Strategic management journal*, 14(S2), 59-73.
- Girod, S. J. G. & Whittington, R. (2017). Reconfiguration, Restructuring and Firm Performance: Dynamic Capabilities and Environmental Dynamism. *Strategic Management Journal*, 38, 1121-1133.
- Government of Kenya (2018)
- Gregory, L. & Pemberton, J. (2011). A managerial perspective of dynamic capabilities in emerging markets: The case of the Russian steel industry. *Journal for East European Management Studies*, 16(3), 215-236.
- Halevi, M. Y., Carmeli, A. & Brueller, N. N. (2015). Ambidexterity in SBUs: TMT Behavioural Integration and Environmental Dynamism. *Human Resource Management*, 54(1), 223-238.
- Helfat, C. E. & Peteraf, M. A. (2003). The dynamic resource-based view: Capability lifecycles. *Strategic management journal*, 24(10), 997-1010.
- Helfat, G.E. and Peteraf, M.A. (2015). Managerial cognitive capabilities and the microfoundations of dynamic capabilities. *Strategic Management Journal*, 36,831-850.
- Hill, S. A. & Birkinshaw, J. (2008). Strategy – organization configurations in corporate venture units: Impact on performance and survival. *Journal of Business Venturing*, 23,423-444.
- Hill, S. A. & Birkinshaw, J. (2014). Ambidexterity and survival in corporate venture units. *Journal of management*, 40(7), 1899-1931.
- Hubbard G. (2009). Measuring organizational performance: Beyond the triple bottom line. *Business Strategy and Environment*, 19, 177-191.
- Jansen, J. J., Tempelaar, M. P. Van den Bosch, F. A. & Volberda, H. W. (2009). Structural differentiation and ambidexterity: The mediating role of integration mechanisms. *Organization Science*, 20(4), 797-811.
- Junni, P., Sarala, R. M., Taras, V. & Tarba, S. Y. (2013). Organizational ambidexterity and performance: A meta-analysis. *The Academy of Management Perspectives*, 27(4), 299-312.
- Keats, B. W. & Hitt, M. A. (1988). A causal model of linkages among environmental dimensions, macro organizational characteristics, and performance. *Academy of management journal*, 31(3), 570-598.
- Kenya Association of Manufacturers (2018). *Kenya manufacturers and exporters directory*. Nairobi: KAM.
- Kenya National Bureau of Statistics (2019). *Economic Survey Report*.
- Lawrence, P. R. & Lorsch, J. W. (1967). Differentiation and integration in complex organizations. *Administrative Science Quarterly*, 1-47.
- Meyer, P. J., Allen, N. J. & Smith, C. A. (1993). Commitment to Organizations and Occupations: Extension and Test of a Three-Component Conceptualization. *Journal of Applied Psychology*, 78(4), 538-551.
- Miller, D. & Friesen, P. H. (1983). Strategy-making and environment: the third link. *Strategic management journal*, 4(3), 221-235.
- Miller, P. (1987). Strategic Industrial Relations and Human Resource Management-Distinction, Definition and Recognition. *Journal of Management Studies*, 24,347-361.
- Mintzberg, H. (1979). *The structuring of organizations*. Prentice-Hall Inc., New Jersey, USA.
- Mwazumbo, P. M. (2016). Organizational Resources, Dynamic Capabilities, Environmental Dynamism and Organizational Performance of Large Manufacturing Companies in Kenya. *Unpublished PhD Thesis. School of Business, University of Nairobi*.
- O'Reilly, C. A. & Tushman, M. L. (2008). Ambidexterity as a Dynamic Capability: Resolving the Innovator's Dilemma.

- Research in Organizational Behaviour*, 28, 185-206.
- Patel, P.C., Messersmith, J.G. & Lepak, D.P. (2013). Walking the tightrope: An assessment of the relationship between high-performance work systems and organizational ambidexterity. *Academy of Management Journal*, 56(5), 1420–1442.
- Peteraf, M., Di Stefano, G. & Verona, G. (2013). The elephant in the room of dynamic capabilities: Bringing two diverging conversations together. *Strategic Management Journal*, 34(12), 1389-1410.
- Popadić, M., Černe, M. & Milohnić, I (2015). Organizational Ambidexterity, Exploration, Exploitation and Firms Innovation Performance. *Organizacija Research papers*, 48(2).
- Prajogo, D. I. (2016). The Strategic Fit between Innovation Strategies and Business Environment in delivering Business Performance, *Int, J, Production Economics*, 171,241-249.
- Raisch, S. & Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents, outcomes, and moderators. *Journal of management*, 34(3), 375-409.
- Tamayo-Torres, J., Roehrich, J. K. and Lewis, M.A. (2017). Organizational ambidexterity, manufacturing performance and environmental dynamism. *International Journal of Operations & Production Management*, 37(3), 282-299.
- Teece, D.J. Pisano, G. and Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533.
- Teece, D.J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*, 28(13), 1319-1350.
- Tushman, M. L. & O'Reilly, C. A. (1996). Ambidextrous organizations: Managing evolutionary and revolutionary change. *California management review*, 38(4), 8-29.
- Venkatraman, N. & Prescott, J. E. (1990). Environment-strategy coalignment: an empirical test of its performance implications. *Strategic Management Journal*, 11(1), 1-23.
- Venkatraman, N., Lee, C. H. & Lyer, B. (2007). Strategic ambidexterity and sales growth: A longitudinal test in the software sector. In *Unpublished Manuscript (earlier version presented at the Academy of Management Meetings, 2005)*.
- Volberda, H. W. & Lewin, A. Y. (2003). Coevolutionary dynamics within and between firms: From evolution to co-evolution. *Journal of management studies*, 40(8), 2111-2136.
- Zhou, K.Z. & Wu, Z. (2010). Technological Capability, Strategic Flexibility, and Product Innovation. *Strategic Management Journal*, 31,547-561.
- Zollo, M. & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization science*, 13(3), 339-351.