Mediating effect of transformational leadership style on the relationship between dynamic capabilities and competitive advantage of manufacturing firms in Kenya

Research article

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Abstract

This study addresses the mediation effect of transformational leadership style on the relationship between dynamic capabilities and competitive advantage of manufacturing firms in Nairobi, Kenya. The study used positivism paradigm, explanatory research design, and quantitative approach on a target population of 795 manufacturing firms located in Nairobi, Kenya. A sample size of 321 firms was selected based on Yamane formula of determination in selecting respondents to be served with the questionnaires. The study employed stratified and simple random sampling technique to constitute the required sample of firms. The results showed that dynamic capabilities positively and significantly affect competitive advantage of manufacturing firms. The results further indicate that transformational leadership style mediates the relationship between dynamic capabilities and competitive advantage. The results provide a channel through which CEOs of manufacturing firms can identify constructs by sensing, seizing and reconfiguring capabilities for competitive advantage. The results will also provide managers and industry practitioners with opportunities to come up with strategies, more emphasis on, and appreciate the role of the leader in the deployment of dynamic capabilities so as to achieve competitive advantage in the ever changing contemporary, volatile operating environment.

Keywords: competitive advantage, dynamic capabilities, reconfiguration capabilities, sensing capabilities, seizing capabilities

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Public Interest Statement

Recent literatures on dynamic capabilities have begun to suggest varied types of capabilities. No known work, however, has expressly researched into the mediation effect of transformational leadership style on the relationship between dynamic capabilities and competitive advantage.

1. Introduction

The attainment of competitive advantage is a priority for strategists, regulators and policymakers as it occupies a pivotal position in strategic management studies (Burden & Proctor 2000; Barney & Clark 2007; Barney & William Hesterly 2014). Every business framework should endeavor to put up strategies to match the key success factors for operating in its market and hence exceeding those of its competitors (Dash & Das 2010). Dynamic capabilities have been researched widely and scholars have acknowledged that it increases or enhances competitive advantage thus long-term profitability of the firm guaranteed (Barney 1991; Ismail *et al.,* 2012; Ngila & Muturi 2016). The goal of every organization is to outperform its rivals and attract potential buyers to its products and services while at the same time retain current customers in the dynamic, volatile business functional environment (Hana, 2013). Dynamic capabilities have been viewed by scholars as the most significant organizational capability that aids attainment of sustainable competitive advantage over competitors as well as profit realization (Ogunkoya *et al.,* 2014).

Manufacturing and service industries are majorly concentrated in various clusters of the country like Nairobi, Eldoret, Kisumu, Mombasa, Nakuru and Thika because of the basic infrastructure (Koirala & Koshal 2000) with approximately 80% located in Nairobi County. The sector is the third biggest industrial sector after agriculture and transport and communication KPMG, 2014). Globally, manufacturing has acted as a growth escalator for economies that have succeeded in eventuating high incomes and those countries that have achieved rapid industrialization have done so by putting in place deliberate policies that promote and encourage value addition and diversification of manufactured goods (KAM, 2019).

Economic Survey results for the periods 2010 to 2014 by the Kenya National Bureau of Statistics further indicate that some major sectors of the Kenyan economy has witnessed intermittent higher growth, though the manufacturing sector has consistently decelerated in growth rates (GOK, 2014) because of high cost of production, stiff competition from imported goods, high cost of credit and political shock leading to firms exiting Kenya hence spelling doom to an economy that was expected to recover. Further statistics from Kenya Association of Manufacturers have shown that certain firms announced plans to shut down their plants and shift operations to Egypt and other countries as a result of reduced profits, competition, and government policies (KAM, 2018) hence the basis this study is seeking to determine the effect

of dynamic capabilities, on competitive advantage of manufacturing firms in Nairobi, Kenya.

1.1 Research Objectives

The objective of the study was to investigate the effect of dynamic capabilities on the relationship between dynamic capabilities and performance of food and beverages firms in Kenya. Specifically the study sought to:

1. To determine the effect of sensing capabilities on competitive advantage of manufacturing firms in Nairobi, Kenya
2. To examine the effect of seizing capabilities on competitive advantage of manufacturing firms in Nairobi, Kenya
3. To assess the effect of reconfiguration capabilities on competitive advantage of manufacturing firms in Nairobi, Kenya
4. To determine the mediation effect of transformational leadership style on the relationship between dynamic capabilities and competitive advantage of manufacturing firms in Nairobi, Kenya

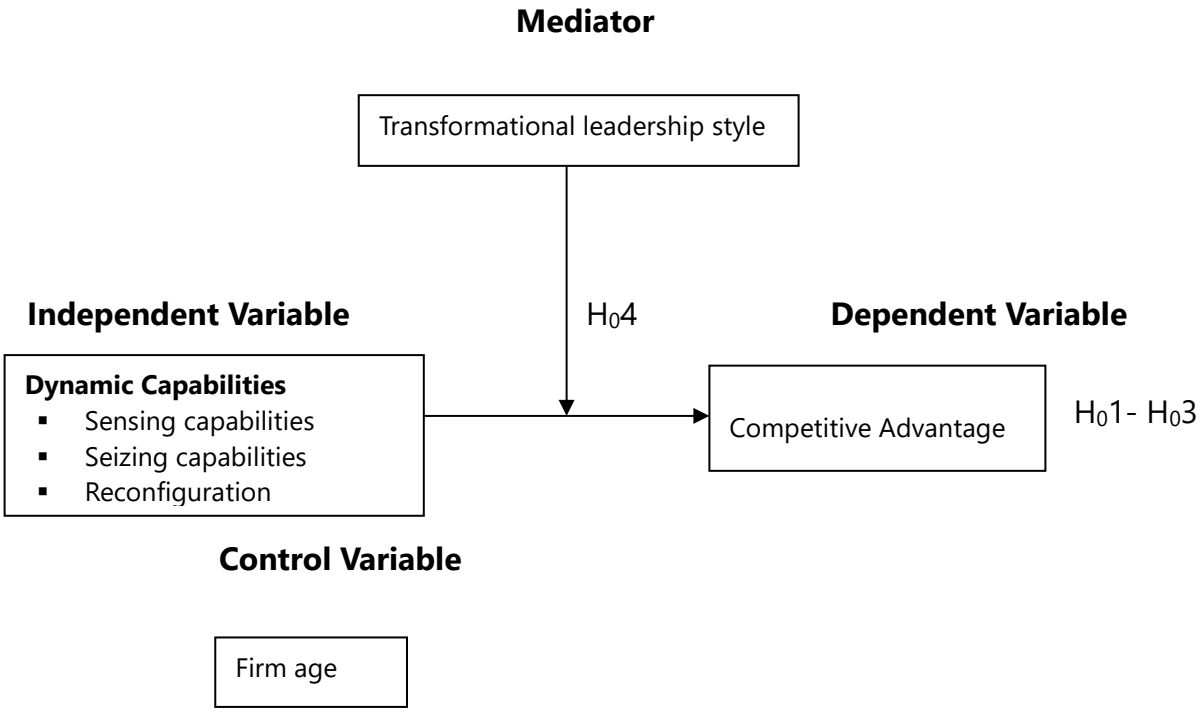
1.2 Research Hypotheses

1. There is no significant effect of sensing capabilities on competitive advantage of manufacturing firms in Nairobi, Kenya.
2. There is no significant effect of seizing capabilities on competitive advantage of manufacturing firms in Nairobi Kenya.
3. There is no significant effect of reconfiguration capabilities on competitive advantage of manufacturing firms in Nairobi, Kenya.
4. Transformational leadership style does not mediate the relationship between dynamic capabilities and competitive advantage of manufacturing firms in Nairobi, Kenya.

2. Conceptual framework of Dynamic Capabilities, Leadership Style and Competitive Advantage of Manufacturing firms in Nairobi

The study examined mediation effect of transformational leadership style on the relationship between dynamic capabilities and competitive advantage of manufacturing firms in Nairobi, Kenya. The conceptual framework was the basis of hypotheses, construction of the questionnaire and analysis of collected data as shown in Figure 1.

Figure 1: *Conceptual framework for the Study.*



Source: Researcher (2020)

3. Methodology

This was explanatory research design conducted through survey and the unit of analysis was 321 CEOs drawn from a target population of 762 firms that are members of Kenya Association of Manufacturers (KAM, 2018).

3.1. The Data

Primary data were gathered from the respondents using the questionnaires and keyed into SPSS package version 23 for analysis. Reliability test was done using the internal consistency technique by employing Cronbach Alpha value of $\alpha>0.7$. The questionnaire was constructed based on measures, scales and items from previous literature and further checks done through pilot study which was done on manufacturing firms in Eldoret town hence enabling the researcher to know the extent to which data collected and analysis procedures yielded consistent findings thus providing assurance that the same results could be expected on any other subsequent similar occasions (Kimberlinm & Winestein 2008).

Table 1: Reliability Results

Construct	Dimensions	No. of Items	Cronbach's alpha coefficient
Competitive advantage	Competitive advantage	9	.793
Dynamic capabilities	Sensing capabilities	11	.863
	Seizing capabilities	11	.827
	Reconfiguration capabilities	11	.875
Leadership style	Transformational leadership style	11	.860

Source: Researcher (2020)

Garspm (2012) posits that intercorrelation of construct items is measured using cronbach's alpha coefficient where items are considered unidimensional and acceptable if they are .60 (Sekaran, 2003) and .70 highly preferred. The results supports Hair *et al.,* (2007) and Henson (2001) where all the items were above .70 cut off: competitive advantage (.793); sensing capabilities (.863); seizing capabilities (.827); reconfiguration capabilities (.875); transformational leadership style (.860); hence good internal consistency.

3.2. Model Specification

Pearson correlation coefficients were used to determine the degree or strength of relationship that exists between the independent (dynamic capabilities) and the dependent variables (competitive advantage). Multiple regression model was used to analyze the data in order to determine the significance of the hypotheses of the study.

3.2.1 Testing for direct effect

In order to achieve objectives 1 that is the direct effect, linear regression models were tested for purposes of H_o1. The test statistics that were computed and derived included the coefficients of determination (R^2); the beta coefficient (β) and the *p*-values. The effects both for controls (age and size of the firm) and the direct effects were statistically processed using the specified linear equations below:

$$Y = \beta_0 + \beta_1 size + \varepsilon \quad \text{..... (1)}$$

$$Y = \beta_0 + C + \beta_1 X_a + \beta_2 X_b + \beta_3 X_c \varepsilon_1 \quad \text{..... (2)}$$

Where:

Y: dependent variable (competitive advantage)

C: control variable (age of the firm)

β_0: constant
X_1: Sensing capabilities
X_2: Seizing capabilities
X_3: Reconfiguration capabilities
β_1-β_3: The effect of slope coefficients denoting the influence of the associated independent variables over the dependent variable coefficient of regression
ε: Error terms

3.2.2 Testing for mediation effect

Mediation is said to occur when the causal effect of an independent variable (X) on a dependent variable (Y) is transmitted by a mediator (Hayes, 2017 and Preacher *et al.,* 2007) which for this case was the mediating effect of leadership style on the relationship between dynamic capabilities and competitive advantage. The equation is shown below:

$$M = a_0 + C + a_1X + \varepsilon$$
$$Y = b_0 + C + b_1M + \varepsilon$$
$$Y = C_0 + C + b_1M + CX + \varepsilon$$
$$Y = a_1 \times b_1 \text{ or } C - C'$$
$$Y = (a_1 \times b_1) + C'$$

4. Empirical Results

4.1 Factor Analysis

Factor analysis was done so as to identify the latent variables in the data constructs and to prepare it for regression (Idinga, 2015).

4.1.1 KMO Results for Dynamic Capabilities

Factorability of the data was assessed using Barlett's test of sphericity and Kaiser- Meyer-Olkin measure of sampling adequacy where Barlett's test of sphericity should be statically significant at $\rho < 0.05$, KMO index should range from 0 to 1.

Table 2: *KMO and Bartlett's Test results*

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.872
Bartlett's Test of Sphericity	Approx. Chi-Square	4373.954
	Df	528
	Sig.	.000

Source: Researcher (2020)

KMO measure was greater than .5 (.87) and Barlett's test findings were significant (X^2 (528) = 4373.95, *p*-value <.001 (KPMG, 2014) confirming that all the changes in the three components of sensing, seizing, learning and reconfiguration capabilities can significantly be relied upon to assess the majority of the changes in the dynamic capabilities.

4.2.2 Total Variance Explained Results for Dynamic Capabilities

Factor analysis was carried out on dynamic capabilities and the factors were extracted using principal component analysis and rotation done using varimax with Kaiser Normalization (Osborne & Waters 2002). PCA was chosen as the most convenient method as it revealed the set of factors which accounted for all common and unique variances (Idinga, 2015). Table 4 showed that sensing capability accounted for 27.42% of variation in dynamic capability while seizing 36.01%; and reconfiguration 42.69% of the changes in the dynamic capabilities. Factors with Eigen values greater than 1 were chosen but three items only were considered for dynamic capabilities variables.

Table 3: *Total Variance Explained Results*

Total Variance Explained									
Component	**Initial Eigenvalues**			**Extraction Sums of Squared Loadings**			**Rotation Sums of Squared Loadings**		
	Total	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	9.05	27.42	27.42	9.05	27.42	27.42	5.20	15.76	15.76
2	2.83	8.58	36.01	2.83	8.58	36.01	4.96	15.04	30.80
3	2.21	6.68	42.69	2.21	6.68	42.69	3.92	11.89	42.69
4	1.62	4.92	47.60						
5	1.29	3.91	51.51						
6	1.19	3.61	55.12						
7	1.09	3.31	58.44						
8	1.07	3.23	61.66						

Extraction Method: Principal Component Analysis.

Source: Researcher (2020)

4.2.3 Rotated Component Matrix Results

The threshold for retaining an item as a measure of a given variable was a minimum factor loading of .5, and Eigen value of not less than 1.0 (Osborne & Waters 2002; Field 2009).

Table 4: *Rotated Component Matrix Results*

Questionnaire Items	Sensing	Seizing	Reconfiguration
Fast in detecting changes in the industry	.643		
Often review possible influence of changes	.620		
Quickly understand new opportunities	.713		
Regularly check quality of functional capabilities	.607		
Regularly check operational capabilities	.677		
Pay great attention to monitoring change of functional and operational capabilities	.637		
Pay great attention to monitoring the efficiency of new processes	.589		
Established processes to identify target market segments, changing customer needs and innovation	.637		
Observe best practices of product and service delivery to our customers	.558		
We attend business forums that discusses changing trends within our business operational environment		.607	
Employees regularly attend business forums to learn about new market/customer needs		.715	
Existing knowledge is readily available to each department		.520	
Business unit periodically circulates new information or knowledge to update everyone		.671	
During major market or technological development changes, every department is made to know immediately		.685	
Employees have capabilities to produce many novel and useful ideas		.520	
Have capabilities to effectively develop novel ideas, new knowledge and insights to impact on product development		.544	
Transform existing resources into new capabilities			.650
Bring new perceptile changes that lie outside existing features of existing capabilities			.666
Effectively identify valuable capability elements to			.719

connect and combine them in new ways			
Effectively recombine existing capabilities into novel combinations			.681
Strategically change our strategies			.617
Effectively integrate new externally sourced capabilities and combine them with existing capabilities into novel combinations			.634
Substantially renewed our business processes			.615
Substantially changed ways of achieving our targets and objectives			.611
Implement new kinds of management methods more responsive within business processes			.526
Bold efforts to maximize probability of exploiting opportunities			.544
Successfully integrate the new knowledge acquired with existing knowledge			.616

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 4 iterations.
Source: Researcher (2020)

Table 4 above showed that all the components were above .5 which is the cut-off for factor loading. The lowest component was .520 and the highest .719 implying that these factors were retained for data transformation and the factors that did not load were removed.

4.3 KMO results for Transformational Leadership Style

Data factorability was done using Bartlets test of sphericity and Kaiser- Meyer-Olkin measure of sampling adequacy where Bartlets test of sphericity should be statically significant at $\rho <$ 0.05 and KMO index range from 0 to 1. The results further showed that the sample used to arrive at the findings was adequate with KMO of (.89) which is greater than the threshold of (.5). Barlett's test Chi-Square (528) = 4737.99, *p*-value <.01 implying that significant changes in the leadership style can be predicted using the changes in the three salient operational factors – transformational, transactional and laissez-faire leadership style.

Table 5: *KMO and Bartlett's Test results for Leadership Style*

KMO and Barlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	4737.989
	Df	528
	Sig.	.000

Source: Researcher (2020)

4.3.1 Total Variance Explained Results for Leadership Style

Factor analysis was carried out on leadership style components using PCA and varimax rotation with Kaizer normalization and the results indicate that all the factors are good measures for the variations in leadership style and can be studied in three operational factors transformational, transactional and laissez-faire which accounted for 25.87%, 36.31%, and 45.02% respectively changes in leadership style (Table 6).

Table 6: *Total Variance Explained Results for Transformational Leadership Style*

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.54	25.87	25.87	8.54	25.87	25.87	6.29	19.07	19.07
2	3.45	10.44	36.31	3.45	10.44	36.31	4.86	14.73	33.80
3	2.87	8.71	45.02	2.87	8.71	45.02	3.70	11.22	45.02
4	1.79	5.43	50.46						
5	1.61	4.89	55.34						
6	1.05	3.18	58.53						
7	1.01	3.06	61.59						

Extraction Method: Principal Component Analysis

Source: Researcher (2020)

4.3.2 Factor Analysis Results for Leadership Style

The threshold for retaining an item as a measure of a given variable was a minimum factor loading of .5, and Eigen value of not less than 1.0 (Osborne 2015; Hair *et al.,* 2013, Field 2009). Table 7 showed that components of transformational leadership style were above .5 which is the cut-off for factor loading with the lowest being .514 and the highest .826 implying that these factors were retained for data transformation and further analysis. A factor that did not load that is below .5 was excluded and factors above .5 included for transformation.

Table 7: *Factor Analysis results for Transformational Leadership Style*

Questionnaire Items	Transformational leadership style
Leader instills pride in me	.544
Leader talks enthusiastically about what needs to be accomplished	.663
Acts in ways that build my respect	.664
Articulates a compelling vision by talking optimistically about the future	.702
Seeks a differing perspectives when solving problems	.694
Displays a sense of power and confidence	.674
Emphasizes importance of collective sense of mission and purpose	.592
Considers moral and ethical consequences of decisions	.619
Expresses confidence that goals will be achieved	.593
Considers me as having different needs, abilities and aspirations	.514

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Source: Researcher (2020)

4.4 Correlation Analysis Results

The purpose of conducting correlation analysis was to measure the possibility of any existing linear relationship between the dependent variable and the other variables through determining the magnitude and direction of the possible relationships considering that both variables are at interval level of measurement and the data is parametric in nature. Correlation is statistically significant at .05 levels if p-values are .05 and are not statistically significant if p-values are more than .05. The correlation strengths were interpreted using Cohen (1988) decision rules where r-values from .1 to .3 indicate weak correlation .31 to .5 moderate correlation strength and greater than .5 a strong correlation between the variables as shown in Table 8 below:

Table 8: *Correlation Results*

Items	Competitive Advantage	Sensing Capabilities	Seizing Capabilities	Reconfiguration Capabilities	Competitive Advantage
Competitive advantage	1				
Sensing capabilities	.534**	1			
Seizing capabilities	.414**	.380**	1		
Reconfiguration capabilities	.411**	.403**	.415**	1	
Transformational leadership style	.352**	.397**	.309**	.436**	1

*. Correlation is significant at the .05 level (2-tailed).

**.Correlation is significant at the .01 level (2-tailed)

Source: Researcher (2020)

Pearson correlation coefficient was used to measure the relationships between the variables (Hair *et al*., 2013 and Field 2009) and the results showed that there is positive and significant correlation between sensing capabilities and competitive (.534) which suggests that there is 53% chance that sensing capabilities will increase competitive advantage. Seizing capabilities was positive and significant (.414) implying that seizing capabilities increases 41.4% of competitive advantage. Reconfiguration capabilities was positive and significant (.411) showing that 41.1% of reconfiguration will lead to competitive advantage. It is also evident that transformational leadership style (.352, p-value = .01advantage

4.5 Data Transformation and Index Construction

Data was transformed by getting the means of the items that loaded to the respective factors hence the means of the various factors derived being used for further analysis. Factor analysis was carried out on independent variables (dynamic capabilities) and on mediator (transformational leadership style) before transformation of the data to allow further analysis by adding all the items then divide by the number of items that is dynamic capabilities = sensing capabilities + seizing capabilities + reconfiguration capabilities to transform dynamic capabilities and also for transformational leadership style (Table 9).

Table 9: *Transformed Variables*

Variables	N	Min.	Max.	Mean	Std. Dev.
Sensing capabilities	319	3.00	5.00	4.45	.35
Seizing capabilities	319	1.71	5.00	3.98	.64
Reconfiguration capabilities	319	1.73	5.00	4.21	.49
Transformational leadership style	319	2.00	5.00	4.19	.47

Source: Researcher (2020)

5. Hypothesis Testing

5.1 Testing Effects of Control Variable

This was done to know how the controls affected the dependent variable in comparison with the direct effects. The findings showed that age of the firm significantly affects competitive advantage (p = .010) as shown in Table 10.

Table 10: *Control variable results*

Model	Unstandardized Coefficients		Standardized Coefficients	Effects	
Variables	**β**	**Std. Error**	**B**	**t**	**Sig.**
(Constant)	4.23	.065		65.20	.000
Age of the firm	.06	.022	.161	2.61	.010
Model summary statistics					
R	.145[a]				
R Square	.021				
Adjusted R-Square	.015				
Std. Error of the Estimate	.408				
R-Square Change	.021				
F-change	3.403				
Sig. F Change	.034				
Durbin Watson	1.597				

Dependent Variable: Competitive Advantage

Source: Researcher (2020)

Their joint prediction was significant (F value of 3.403, ρ<.01). Age of the firm significantly influenced competitive advantage (β = .161 and p-value = .010). It is worth noting also that this was only control variable and they needed not be causal hence their coefficients generally do not have a causal interpretation to the study.

5.2 Direct effects results

A regression test to determine the effects of both the control and the independent variables (direct effect) was done and the findings revealed that 36.0% variation of competitive advantage is predicted by sensing, seizing and reconfiguration (R2 = 36.0). Their joint prediction was significant as shown by F-change (35.27), p (.000) and Durbin Watson (1.908). The results showed that all the three variables - sensing capabilities (β=.392, p=.000), seizing capabilities (β=.194, p=.000) and reconfiguration capabilities (β=.174, p=.001); have significant and positive effect on competitive advantage. The variables when combined contributed 36% (R2 =.360) of the variance in competitive advantage which is an improvement from the first set of control variable's contribution, by 2.1% (ΔR2 = .021) as shown in Table 11.

Table 11: *Testing $H_0$1- $H_0$3 Results*

Model	**Unstandardized coefficients**		**Standardized coefficients**		
Variables	**β**	**Std. Error**	**B**	**t**	**Sig.**
(Constant)	1.176	.253		4.648	.000
Age of the firm	-.003	.019	-.008	-.150	.881
Sensing capabilities	.462	.061	.392	7.594	.000
Seizing capabilities	.125	.034	.194	3.653	.000
Reconfiguration capabilities	.146	.044	.174	3.323	.001
R	.600[a]				
R Square	.360				
Adjusted R Square	.350				
Std. Error of the Estimate	.332				
R Square Change	.360				
F Change	35.272				
Sig. F Change	.000				
Durbin Watson	1.908				

a. Dependent Variable: Competitive Advantage

b. Predictors: (Constant), age of the firm, size of the firm, sensing capabilities, seizing capabilities, reconfiguration capabilities,

Source: Researcher (2020)

$H_0$1stated that sensing capabilities had no significant effect on competitive advantage but findings in the table showed that sensing capabilities had coefficients of estimate which was positive and significant (β_{1a} = .392, *p*-value = .000) which is less than (.05) implying that there was .392 unit increase in competitive advantage for each unit increase in sensing capabilities hence null hypothesis being rejected and conclusion was that sensing capabilities had a significant and positive effect on competitive advantage.

$H_0$2 stated that seizing capabilities had no significant effect on competitive advantage. The study findings showed that seizing capabilities had a positive and significant effect on competitive advantage based on the β_{1b} = .194 with a *p*-value of .000 which is less than (.05) implying that seizing capabilities positively and significantly affect competitive advantage hence null hypothesis was rejected.

$H_0$3 stated that reconfiguration capabilities had no significant effect on competitive advantage and the findings showed that reconfiguration capabilities had coefficients of estimates which were positive and significant (β_{1c}= .174; p-value = .001) which is less than (.05) thus null hypothesis rejected confirming that reconfiguration capabilities had a positive and significant effect on competitive advantage.

5.3 Testing mediation effect of transformational leadership style

$H_0$4 stated that transformational leadership style does not mediate the relationship between dynamic capabilities and competitive advantage. This study finding (Table 4.12) showed that transformational leadership style mediates the relationship between dynamic capabilities and competitive advantage (LLCI = .03; ULCI = .13) and by also calculating the product of a_1 x b_1 (.38 x .17 = .064) showed that the analysis was positive and had non-zero hence complementary mediation. H02a was therefore rejected. There was an increase in R^2 also from .17 (17%) to .31 (31%) as well as F value from 21.23 to 35.29 then 42.16 with a p-value of .00 implying that transformational leadership style mediates the relationship between sensing capabilities and competitive advantage thus the null hypothesis was rejected.

Table 12: *Testing $H_0$4 Results*

	$a_1 = M_1$		$b_1 = M_2$		Total Effect = M_3	
Variables	**β**	**p-value**	**β**	**p-value**	**β**	**p-value**
Size of the firm	-.12	.05	.03	.64	.01	.92
Age of the firm	.04	.38	.02	.65	.03	.54
Sensing capabilities	.38	.00	.46	.00	.53	.00
Transformational leadership style	-	-	.17	.00		
R^2	.17		.31		.29	
F	21.23***		35.29***		42.16***	
Mediation = a_1 x b_1 = .38 x .17 = .064; **CI = .03, .13**						

*** p<.001, Dependent variable: competitive advantage

Source: Researcher (2020)

The results of total effect (β=.53, p<.00) and direct effect (β=.46, p<.00) plus indirect effect (β=.38, p<.00) indicated that sensing capabilities had a significant relationship with competitive advantage but when the mediator (transformational leadership style) was introduced then there was an increase on the relationship between sensing capabilities and competitive advantage.

6. Discussions

Objective 1 of the study was to determine the effect of sensing capabilities on competitive advantage of manufacturing firms in Nairobi, Kenya, hypothesized as there was no significant effect of sensing capabilities on competitive advantage ($H_0$1). The results showed that there was positive and statistically significant effect of sensing capabilities on competitive advantage (β = .392, p= .000) implying that sensing capabilities which comprise constant scanning, searching, identifying opportunities, threats, changes and also competitor's possible responses to the focal enterprise actions in firms (Li and Liu, 2014) affect competitive advantage. Objective 2 of the study was to examine the effect of seizing capabilities on competitive advantage of manufacturing firms in Nairobi, Kenya which was hypothesized that there was no significant effect of seizing capabilities on competitive advantage ($H_0$2). The findings showed that seizing capabilities had a positive and statistically significant effect on competitive advantage (β = .194, p = .000) implying that seizing capabilities which comprise of correcting decisions and executing them so that they simultaneously align with the

enterprises' assets and strategic goals (Li and Liu, 2014) by capturing value from opportunities through mobilizing existing resources towards these new innovative goals (Teece, 2016).

Objective 3 was to establish the effect of reconfiguration capabilities on competitive advantage of manufacturing firms in Nairobi, Kenya. The hypothesis was that there was no significant effect of reconfiguration capabilities on competitive advantage of manufacturing firms in Kenya. The study findings (β = .174, p = .001) supported this objective leading to null hypothesis being rejected.

Literature has highlighted that dynamic capabilities of the firm are the fundamental source of competitive advantage (Hou, 2010); instrumental in determining the capacity of the firm to successfully implement actions that result in sustained competitive advantage (Leornard-Baton (1992) and that it is a crucial determinant of a firm's competitive advantage (Hou and Chien, 2010). Past studies have examined the direct effect of dynamic capabilities and competitive advantage of the firm (Chukwumeka, 2018; Wu, 2010; Hou and Chien, 2010; Ogunkoya *et al.,* 2014) but no research has mediated dynamic capabilities and competitive advantage with transformational leadership style which this research tries to achieve.

This study therefore confirms previous studies that dynamic capabilities enhances competitive advantage of manufacturing firms in Kenya as shown by the prediction of 53.5% denoted by R2 (.535) implying that prediction parameters contribute 53.5% of competitive advantage whereas random variations and other factors excluded from the study contributes 46.5% which is in line with Schilke (2014) whose findings indicated that competitive advantage and dynamic capabilities are positively correlated in moderately dynamic atmosphere as opposed to highly dynamic or stable atmosphere. This study focuses on organization's ability to recognized opportunity (sensing capability), create, acquire and share knowledge (seizing capability), and generate adequate varieties to accommodate the dynamism from the environment (reconfiguration capability) as responsible for competitive advantage of the firm.

7. Conclusion

Empirical findings of this study confirmed the significant and positive relationship between dynamic capabilities and competitive advantage of manufacturing firms. Based on the hypothesis of dynamic capabilities and competitive advantage the findings agreed with reviewed literature. The study therefore concludes that firms with a stronger commitment to deploying dynamic capabilities (sensing, seizing and reconfiguration) are more successful hence firms need to continuously deploy all firm-relevant capabilities in line with the Dynamic Capabilities View and Resource-Based View because ignoring deployment of a single dynamic capability can negatively affect the deployment of other dynamic capabilities since they are correlated and interwoven together. It is therefore important for managers and executives to evaluate the internal and external costs of their products and services, gather market

information, conduct market research to understand the needs and wishes of their customers, work on their production costs, forecast and evaluate the organizational performance so as to attain competitive advantage in their operational activities (Afonina, 2015). It is further argued that organizational performance is the extent to which an organization meets the needs of its stakeholders and also fulfills its own needs for survival which is of immense interest in the field of management and business research (Ofoegbu and Akanbi, 2012) which can facilitate the achievement of corporate strategic goals and mission & values (Cho *et al.*, 2012) through activities that are aimed at achieving, evaluating and fine tuning the ways to achieve the organizational goals and competitive advantage (Yap, 2012).

8. Recommendations

Further studies could focus on a deeper investigation of each dynamic capability, especially on the paths and positions affecting the development of dynamic capabilities. Secondly, a longitudinal research would also be valuable since the results of deploying and developing dynamic capabilities usually cannot be seen in the short term but in the long-term. Thirdly, the same or a similar study could also be conducted in other industries or a cross-industry analysis could reveal commonalities and diversities in deploying dynamic capabilities across industries. Fourth, future studies exploring the dynamic capabilities field should involve other qualitative approaches such as focus groups or observation methods. Finally, other leadership styles can be researched that is transactional or laissez-faire on competitive advantage or on any other dependent variable.

9. Practical implications

The findings of this study provide an insightful explanation to manufacturing firms' management to consider dynamic capabilities and encourage their managers to concentrate on sensing, seizing and reconfiguration of their tangible and intangible resources or capabilities that will help the firm to be competitive (Porter, 1998). Firms should recognize shifts in the operating environment that could impact firm's business through regularly scanning the local and international business environment; create internal knowledge, acquire and assimilate or share knowledge and also integrate and transform existing capabilities both tangible and intangible capabilities. The study results have important implications for practicing managers and leaders in that practicing manager will know some useful implications for application in designing strategies to be used in enhancing and sustaining competitive advantage through the appropriate model for use when acquiring resources and selecting the competencies and capabilities that would avail desired results efficiently and effectively. The results will guide CEOs and various firm stakeholders in the manufacturing firms on how to maximize dynamic capabilities for competitive advantage.

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