



INFLUENCE OF MANAGEMENT CAPABILITIES ON THE PERFORMANCE OF NZOIA SUGAR COMPANY

Kennedy Ntabo Otisoⁱ

Dr., Lecturer, School of Business and Management Science

Department of Business Management

University of Eldoret, Kenya

Abstract:

The purpose of this study was to determine the influence of management capabilities on the performance of Nzoia Sugar Company Limited. The study was based on the Resource Based View Theory. A case study and survey designs were employed in this research. The study targeted a total of 1,403 employees comprising of 790 lower level employees, 422 Supervisory level employees, 182 middle level management and nine top level management. Random stratified sampling technique was used to select 210 respondents. Data collection instruments comprised of questionnaires and interview schedules. Validity was determined by content validity and reliability using Cronbach alpha method which had Cronbach Alpha Coefficient of 0.783 which was greater than 0.7. Data were collected and analyzed using descriptive methods. It was recommended that there was need for organization to develop customer care capability that would enable the staff to interact with customers and other stakeholder at all level; that organization should develop market capability that ensures maximum reach out to all possible customers; the firms needed to adopt management capabilities that can make them stand out in the customers' eye and suit the prevailing environmental conditions at the given period of time and finally organizations need to set up sufficient budget that would enable them adopt most current technologies which would result to increase in performance. It was concluded that an increase in customer service management capability constructs like repeat purchase, confidentiality of customer information and different customer needs once enhanced could translate to higher firm performance; attributes of marketing capabilities like employee training on basic marketing skills, e-marketing and marketing intelligence information should be enhanced; internet

ⁱ Correspondence: email kenntabo@gmail.com

penetration, automation of processes, use of e-marketing and procurement could lead to improved firm performance and setting targets for the company which are attainable, monitoring and evaluation of all activities would lead to improved firm performance. The findings of this study shall be useful to the policy makers, strategists and the researcher in making informed conclusions and recommendations. The findings shall give guidance to the managers of different departments in coming up with proper policies in management.

JEL: J53, M11, L21

Keywords: management, capabilities, firm, performance, competitive advantage, automation

1. Introduction

For more than a decade, research has attempted to untangle the relationship between Management capabilities and the firm's performance. Large sample of statistical evidence demonstrate that majority of the productivity benefits are attributed to organization capability investment (Brynjolfsen and Hitt, 1995). These results imply the existence of a set of Organizational characteristics that are positively correlated with all organizational Capabilities and performance of the firm. A variety of organizational capabilities, practices and processes complement each other, however we expect systems practices and competencies working in a relationship to enable greater business value generation (Milgrom and Roberts, 1990). Firm performance refers to organization effectiveness in terms of its financial and Operational performance (Saraf *et al.*, 2000). Previous research has used a number of Indicators to measure firm performance is finance, efficiency, marketing, technology. Management practices are strongly associated with firm performance (Bloom and Van Reenen, 2010) found that there were large differences in management practices across firms as well as countries and that these practices are strongly associated with firm level productivity and other performance measures such as profitability and survival rates. Differences in management practices are larger between firms in the same country than across countries suggesting firm and sector-specific factors were at least as important as the general business environment in shaping managerial performance. Management is an activity which comprises the planning, organizing, leading, directing and controlling the activities of the firm. There is a significant relationship between competence based management systems and business performance especially where the management development activity is linked to business strategy.

2. Research Design and Methodology

2.1 Research Design

The study adopted survey and correlational designs to determine the effects of management capabilities and firm performance of Nzoia Sugar Company Limited. The designs aided in understanding the phenomena through the meanings that people assign to them and it aims at understanding the context (Walsham, 1997) of management capabilities on firm performance in the Nzoia Sugar Company Limited. The purpose of using case study approach was that it has the ability to let the subject unfold naturally; to refine concepts and frames of reference while studying the phenomena and it enables the researcher to understand and capture the dynamics of the process of change (Galliers, 1992).

2.2 Location of Study

This study was carried out in Nzoia Sugar Company Limited located in Bungoma County. Bungoma County is one of the former districts of Western province. It borders Mt. Elgon to the north-west, Trans-Nzoia County to the east and Busia County to the west and south-west. It also borders the Republic Educational of Uganda to the north-western point at Lwakhakha border point. Bungoma lies between latitude 0 degrees 253 North and 35 degrees to the East. It covers an area of 2068.5 square Kilometers with a population of about 1.4 million people.

2.3 Target Population

The study targeted a total of 1,403 employees comprising of 790 Unionisable employees, 422 Supervisory level employees, 182 middle level management and nine top level management (Nzoia Sugar Company Limited, 2017).

2.4 Sampling procedures and Sample Size

Stratified sampling technique was be used to categorize into 4 strata, top level management, supervisory level employees, middle level management and Unionisable employees. Then simple random sampling was used to select 210 employees so that each and every one in the target population had an equal chance of inclusion from the target populations of 1,403 employees. This was done so that the study did not miss any parameters that were vital to the research. The sample size of employees was determined by use of Kombo and Tromp (2006) recommendation that a sample size of 10% to 30% was representative enough for the study population. Therefore, the sample size of employees was determined on the basis of 15% recommended by Kombo and

Tromp (2006): Number of employees: - $15/100 \times 1403 = 210$ employees. To get sample population proportionate to target population, the study used the following:

$$\text{Sample size for each} = \frac{N_s}{N} \times n$$

Where:

N_s is the target population for each strata;

N is the target population;

n is the sample size.

Using the formula shown above, out of 9 top level management, 2 were selected purposively because this technique allows the researcher to use cases that had the required information with respect to the objectives of the study (Mugenda & Mugenda, 2003). Out of 422 supervisory level employees, 63 were selected randomly, 27 middle level management were selected randomly from 182 and 118 Unionisable employee were randomly selected from target of 790. The middle level management consisted of departmental head such as finance, purchase, transport, marketing while Supervisory Level Employees who directed other workers with instructions from middle level management. The Unionisable employees were those employees who were registered in workers union. The distribution is as shown in Table 1.

Table 1: A Sample Frame

Strata	Population	Sample Size
Top Level Management	09	02
Supervisory Level Employees	422	63
Middle level Management	182	27
Lower Level Employees	790	118
Total	1,403	210

2.5 Methods of Data Collection

The study used both the questionnaire and interview schedules for data collection.

2.6 Questionnaires for Employees

Questionnaires are useful instrument of collecting the primary data since the respondents can read and then give responses to each item and they can reach a large number of subjects (Orodho, 2004). This explains why the questionnaires were used to capture data from the employees who were deemed to have acquired the requisite educational levels. This instrument was also used in the study because it was convenient to administer when handling a large group of respondents. These

instruments were confidential, save on time, no bias and covered wide area (Mugenda, Mugenda, 2003).

2.7 Validity and Reliability of Research Instruments

2.7.1 Validity

According to Mugenda and Mugenda (2002) validity refers to the accuracy and meaningfulness of inferences made based on results obtained. It is asking a relevant question framed in the least way. White (2005) describes validity as the agreement between the researcher's conclusion and the actual reality. The research adopted the content validity to measure the validity of the instruments to be used. Content validity enables data being collected to be reliable in representing the specific content of a particular concept. Supervisors and the research experts in the Department of Business Administration and Management evaluated the applicability and appropriateness of the content, clarity and adequacy of the research instrument from a research perspective. Borg and Gall (1985) points out that validity of an instrument is improved through expert judgment. Validity was also checked during piloting to ensure all the items in the questionnaire were relevant and functional. Moreover, to ensure validity of the instruments, content validity was established (Cozby, 1977) from the pretest and re-test method that was done before the actual research. The pre-test retest was carried out in one out of the ten (10) departments whose twelve (12) respondents were not involved in the final data collection and analysis. The twelve (12) respondents looked at the questionnaire items; ascertained the content and whether the items measured what they intended to measure. .

2.7.2 Reliability

According to Mugenda and Mugenda (1999), reliability of an instrument is a measure of the extent to which a research instrument yields consistent results or data after repeated trials in the study. The consistency of questionnaire was established through test re-test method where research tools were administered twice to the same people under identical conditions, this procedure revealed the questions that are vague that can lead to respondents interpreting them differently hence adjustments accordingly. Reliability measures the relevance and correctness of the instruments (Mugenda and Mugenda, 2003). After piloting, the internal consistence procedure was used to determine the reliability of the instruments. This was determined from scores obtained from a single test administered to a sample of subject. A score obtained in one item was correlated with scores obtained from other items in the instrument. Finally, Cronbach Alpha Reliability coefficient value was computed to determine how items correlate among

themselves. The threshold value acceptable in this study was 0.783 which was higher than an alpha of 0.7 according to Fraenkel and Wallen (2000) and Mugenda and Mugenda (2003). On the basis of the results of piloting process, the instruments were then duly modified to meet performance standards before being used for actual data collection.

2.8 Data Collection Procedure

The researcher obtained a research permit and a research authorization letter from the National Commission for Science Technology and Innovation before embarking on data collection process as dictated by ethics. The instruments were administered through personal visits to the Nzoia Sugar Company Limited where the questionnaires were administered in the presence of the researcher after agreeing on the dates and then collected personally or by use of research assistants. The researcher took time to explain any issues arising from the research instruments.

3. Data Analysis, Presentation and Discussion

3.1 Questionnaire Response Rate

A representative sample of 210 employees participated in the research. 180 respondents completed the questionnaires properly and returned them to the researcher giving a response rate of 86%.

3.2 Demographic Characteristics of the Respondents

The background information of the respondents included gender, age, education and number of years worked for the company. The results were as discussed below

3.3 Gender of the Respondents

The first part of the background information was on the gender of respondents. The results revealed that 62.2 % of the respondents were male while the remaining 37.8% were female. This indicates that majority of employees in Nzoia Sugar Company are male as compared to female. The results are as shown in the Table 2.

Table 2: Gender of the Respondents

Gender	Frequency	Percentage
Male	112	62.2
Female	68	37.8
Total	180	100.0

Source: Research data, 2016

3.4 Age of the Respondents

The second part established the age of the respondents. The results revealed that 20% of the respondents were aged between 18 to 24 years, 3.7% were aged between 25 to 34 years, 22.8% were between 35 to 47 years while the remaining 25.6% were 48 years and above. The results reveal that majority of the respondents were aged between 18 to 47 years. Lopez et al., (2006) found out that age of employee has a significant effect on organizational capabilities. The most affected capability was technical capabilities where old guards were found to less interested as compared to managerial capability.

3.5 Education Level of Respondents

The other information was on the educational background of the respondents. The results showed that 14.8% of the respondents had O-level, 9.3% had certificate level, 46.3% had diploma while the remaining 29.6% had bachelor's degree. Majority of the respondents had diploma qualification and bachelor's degree Kotur and Anbazhagan (2014) revealed that education level of the workforce has significant impact on the adoption rate of various organization capabilities. He found that, workers in the medium range on educational qualification perform better compared those in the extremes. The results are as shown in Table 3.

Table 3: Education levels of the Respondents

Education Level	Frequency	Percentage
O level	27	14.8
Certificate	17	9.3
Diploma	83	46.3
Bachelor's degree	54	29.6
Total	180	100.0

Source: Research data, 2016

3.6 Management Capability and Firm Performance

The third objective of the study was to assess the role of management capabilities on firm performance. The objective tested the fourth hypothesis of the study which posits, H₀₄: There is no significant effect of management capabilities on firm performance. This was achieved through correlation and simple linear regression analysis at significance level of 0.05. The results are as discussed below.

3.7 Descriptive results of Management Capability

The employees were asked questions on six aspects of Technological Capabilities. Table 4.14 gives the percentage of respondents who responded to each of the questions

according to the Likert scale of 1-5 where 1-SD (Strongly Disagree), 2-D (Disagree), 3-U (Undecided), 4-A (Agree) and 5-SA (Strongly Agree). The results are as shown in Table below.

Table 3.8: Descriptive statistics of Management Capability

Question	SD (%)	D (%)	U (%)	A (%)	SA (%)
Employees and management usually set targets for the company	16(8.9)	30(16.7)	18(10)	55(30.6)	61(33.9)
Set targets are attainable	15(8.3)	24(13.3)	29(16.1)	56(31.1)	56(31.1)
Proper and effective management and monitoring of all activities helps improve the quality of goods and services and reduces production cost	14(7.1)	28(15.6)	23(12.8)	61(33.9)	54(30)
There are significant variances between the actual time of completing an activity and planned time for	14(7.8)	25(13.9)	25(13.9)	59(32.8)	57(31.7)
The management communicates management strategies to all staff.	13(7.2)	24(13.3)	25(13.9)	64(35.6)	54(30)
There is alignment of strategic initiatives with strategic goals	6(3.3)	33(18.3)	46(25.5)	89(49.4)	6(3.3)

Source: Research data, 2016

Management capability of Nzoia Sugar Company Limited Ltd was rated as good on all issues used as indicators. From the results in Table 4.14, 30.6% of the respondents agreed that employees and management usually set targets while 33.9% strongly agreed. The findings reveal that 62.2% of the respondents were in agreement that the targets set by the organization were attainable. Further, the findings indicate that 33.9% of the respondents agreed that there were proper and effective management and monitoring of all activities helps improve the quality of goods and services and reduces production cost while 30% strongly agreed. From the results, 64.5% of the respondents agreed that there are significant variances between the actual time of completing an activity and planned time for. It was also established that 65.6% of the respondents were of the opinion that the management communicates management strategies to all staff. Lastly, the findings revealed that 49.4% of the respondents agreed that there is alignment of strategic initiatives with strategic goals and further 3.3% strongly agreed.

The results from interview revealed that management capabilities play crucial roles in firm performance. Through management capability, there has been strategic vision and identity for the company. The management capability is also provide means to communicate the vision and objective throughout the organization and encourage workforce to achieve them. The researcher also noted that, there is effort of developing

management capabilities so as to coordinate and fast track other organizational capabilities.

3.8 Inferential Results for Management Capabilities

In order to determine whether management capabilities had any effect on firm performance, the study tested the following null hypothesis:

H₀₄: There is no significant effect of management capabilities on firm performance. The researcher used the correlation (r) and regression (beta, β) to test this hypothesis. The test criteria is set such the study rejects the null hypothesis H₀₄ if β₁≠0, otherwise the study will have failed to reject H₀₄ if β₁=0. To test the hypothesis, mean of firm performance (P) was correlated with mean of management capabilities.

Table 4.15: Correlation results of management capabilities and firm performance

Model	R	R ²	Adj. R ²	B	SE	β	t	df	F	Sig.
Constant				2.218	0.162		13.694			0.000
MTC	0.682	0.465	0.462	0.563	0.045	0.682	12.440	1,179	154.757	0.000

Predictors: (Constant), management capabilities

The correlation results between the mean of management capabilities and the mean of firm performance (P) had r=0.682 at p=0.00. The results revealed management capabilities had a statistically positive and significant effect on firm performance. This implies that increase in management capabilities would results to increase in performance. Therefore the third null hypothesis is rejected since P<0.05 and confirm that there is significant relationship between management capabilities and firm performance.

The results in the Table 4.15 show that 46.5% of the firm performance can be explained by management capabilities (r² = 0.465). From the ANOVA results the F test gave a value of F (1, 179) =154.757, p < .01, which was large enough to support the goodness of fit of the model in explaining the variation in the dependent variables. It also means a management capabilities is a significant predictor of performance. The relationship followed a simple regression model of the nature:

$$Pf = 2.218 + 0.563MTC$$

Where Pf is the firm performance, α is the constant intercept of which in our case is 2.218 and beta β₁= 0.563 and MTC is management capabilities.

This suggests that an increase in management capabilities by one unit would result to significant increase in firm performance by 0.563. In the hypothesis criteria, we were to reject H_0 if $\beta_1 \neq 0$. However, from this results, the value of beta $\beta_1 = 0.563$ and yet $0.563 \neq 0$. The study therefore rejects the null hypothesis and conclude that there is significant effect of management capabilities on firm performance

Oya *et al.* (2010) supported the results of this finding by indicating that technical capability accounted for 28.1% of change in firm performance. The same results were obtained by Thompson and Heron (2007) found out that management capability results to high performance work organization.

4. Summary, Conclusions and Recommendations

The study intended to assess the effect of organizational capabilities on the performance of Nzoia Sugar Company Limited. The study targeted the 210 employees of Nzoia Sugar Company. The organizational capabilities were measured using technological capabilities, customer service management, marketing capabilities and management capabilities. Firm performance was determined using market share, sales & revenue. Data was collected using questionnaires and interview then analyzed by use descriptive (Frequency & percentage) and inferential (Correlation and Regression) with significance level of 0.05 with aid of SPSS (20). The findings revealed that organization capabilities had significant effect on the performance of Nzoia Sugar Company Limited with $r = 0.825$. Up to 68.1% of the variance in performance is significantly accounted for by organization capabilities leaving 31.9% to be explained by other factors. The summary per objective is presented as follows. The strategic role of management has a great impact on firm performance. The management has to put more focus particularly in the potential of high performance work system to serve as an inimitable resource supporting the executive implementation of the corporate strategy and attainment of operational goals. Special attention should be devoted to methodological challenges inherent in the prior empirical work that has adopted these systems perspective and what we can learn from research at different levels of analysis then next summarise the evolution of our own work on the subject departments and present new findings that bear its magnitude and its management strategy from performance relationship

Impact on corporate financial performance effectiveness is associated with capabilities and attributes of its management. The relationship between management effectiveness and promptly cash flow and market value. The receipt of education, work experience and service on performance will depend on the top management teams strategic and social context. management capabilities had a statistically positive and significant effect on firm performance. The results show that 46.5% of the firm

performance can be explained by role of management capabilities ($r^2 = 0.465$). An increase in management capability by one percent will result to significant increase in performance by 0.196. The results show that management capabilities played significant role in the enhancement of the firms performance and it significantly explains upto 46.5% change in firm performance. Therefore, setting targets for the company which are attainable, monitoring and evaluation of all activities would lead to improved firm performance. Therefore, the fourth null hypothesis was rejected as there was significant relationship between technological capabilities and the performance of the firm. The study recommended that there was need for organization to develop customer care capability that would enable the staff to interact with customers and other stakeholder at all level. This would ensure all customer needs are addressed promptly and there is uniformity in customer care services. The study also recommended that organization should develop market capability that ensures that maximum reach out to all possible customers. The marketing strategies should be varied and customized so that a lot of resources are not directed to marketing which has low yield in terms of organization performance and high input cost.

References

1. Aberdeen Group. (2001). Customer value management; keeping profitable customers on board.
2. Barnsley J. B., Wright, M., & Ketcher, D. J. (2001) The resource based view of the Firm *Journal of management* 27:625_641
3. Battle, F. (2004). Customer Relationship Management: Concepts and tools, Elsevier, Oxford
4. Branzei, O., Vertinsky, I. (2006). Strategic pathways to Marketing capabilities in SMEs, *Journal of Business Venturing*, 21, 1: pp.75-105
5. Brown, J., & Pope, V. (2001). Best practices in strategy implementation: Learning from the best experts, Greenleaf Book Group press: New York.
6. Boulding, W., Staelin, R., & Johnson, W. (2005) A customer relationship management roadmap what is known, potential Pitfalls and where to go. *Journal of marketing* (69:4) 155-168.
7. Buul, M. (2010). Successful strategy implementation: A job for the internal auditor
8. Cho, H., & Pucik, V. (2005). Relationship between innovativeness, quality, growth, profitability, and market value, *Strategic Management Journal*, 26: pp.555-575.

9. Churchill, G. A. (1979). A paradigm for developing better measures of marketing constructs, *Journal of marketing research* (26:2) 64-73.
10. Day, G. S. (1994). The capabilities of the market driven organizations, *Journal of Marketing*, 58, 1: pp.37-52.
11. Day, G. S., & Van Due, B. (2002). Superiority in customer relationship management, consequences of competitive advantage & performance, Cambridge MA marketing Science institute
12. Kobinski, H. (2002). *The challenges of strategy implementation*. The conference Board executive Action and Control. Burr Ridge, Illinois
13. Kogut, B., & Zander, U. (1992). Knowledge of the firm combinative capabilities and the replication of technology; *organization science* 3,383_397.
14. Kolks, U. (1990). Strategy implementation; a user oriented conception (A masters thesis) submitted to the University of Gieben, Germany
15. Lopez-Cabrales, A., Vale, R., Herrero, I. (2006). The contribution of core employees to organizational capabilities and efficiency, *Human Resource Management*, 45,1: pp.81-109.
16. Mabey, C., & Ramirez, M. (2003). Does management development improve firm productivity?
17. Macher, J. T. and Mowery, D.C. (2009). Measuring Dynamic Capabilities: Practices and Performance in Semiconductor Manufacturing. *British Journal of Management*, 20, S41–S62.
18. Makadok, R. (2001). Toward a synthesis of the resource-based and dynamic-capability views of rent creation. *Strategic Management Journal*, 22, 387–401.
19. Mankins, M.C., & Steel, R. (2005). Tuning great strategy into great performance *Harvard Business Review* July August pp. 64-73
20. Marketing, U.K. (2000). The problem of CRM under delivery Marketing UK.
21. Mata, F. J., Fuerst, W. L. & Barnsley, J B. (1995). Information Technology Sustainable competitive Advantage, *A Resource Based Analysis MIS quarterly* 19:4 487_505
22. McKelvie, A., Davidsson, P. (2009). From resource base to dynamic capabilities: an investigation of new firms, *British Journal of Management*, V.20, pp.63-80.
23. Mohammed, R. (2008). *Strategic performance and measurement system and Organization capabilities*; Using Levers of control Framework.
24. Mundy, J. (2009). Creating dynamic tensions through a balanced use of management control systems.
25. Newbert, S.L. (2007). Empirical research on the resource-based view of the firm: An assessment and suggestions for future research, *Strategic Management Journal*, 28; pp.121-146.

26. Payne, A., and Furrow, P. (2005). A strategic framework for customer relationship management, *Journal of Marketing* (69:4) 167_191
27. Piccolo, G., & Aives, B. (2005). IT-dependent strategic initiatives and sustained Competitive advantage: A René and synthesis of literature, *mid Quarterly*, 29:4, 747_777.
28. Piercy, N. F. (1998). Marketing implementation, the implications of marketing Paradigm weaknesses for the strategy execution, *Academy of Marketing Science, Journal*, 26, 222-236.
29. Porter, M. (1985). *Competitive Advantage* free press New York.
30. Song, M. C., Benedetto, A., Nason, R.W. (2007). Capabilities and financial performance; The moderating effect of strategic type, *J. of the Acad. Mark. Sci.*, 35: pp.18-34.
31. Spanos, Y. E., Prastacos, G. (2004). Understanding organizational capabilities: towards a conceptual framework, *Journal of Knowledge Management*, 8,3: pp.31-43.
32. Tamkin, P., & Hirsh, W. (2003). *Chore to champions; the making of Better people Managers*
33. Teece, D. J., Pisandat, G., & Shven, A. (1997). Dynamic capabilities and strategic management, *Strategic Management Journal* 18,509_533.
34. Verona, G., and Ravasi, D. (2003). Unbundling dynamic capabilities: An exploratory study of continuous product innovation. *Industrial and Corporate Change*, 12, 577–606.
35. Wirowitz, J. (nd). The successful implementation of strategies in the modern Business environment, *Journal of International Business Administration* pop 234_256

Creative Commons licensing terms

Authors will retain copyright to their published articles agreeing that a Creative Commons Attribution 4.0 International License (CC BY 4.0) terms will be applied to their work. Under the terms of this license, no permission is required from the author(s) or publisher for members of the community to copy, distribute, transmit or adapt the article content, providing a proper, prominent and unambiguous attribution to the authors in a manner that makes clear that the materials are being reused under permission of a Creative Commons License. Views, opinions and conclusions expressed in this research article are views, opinions and conclusions of the author(s). Open Access Publishing Group and European Journal of Management and Marketing Studies shall not be responsible or answerable for any loss, damage or liability caused in relation to/arising out of conflict of interests, copyright violations and inappropriate or inaccurate use of any kind content related or integrated on the research work. All the published works are meeting the Open Access Publishing requirements and can be freely accessed, shared, modified, distributed and used in educational, commercial and non-commercial purposes under a [Creative Commons Attribution 4.0 International License \(CC BY 4.0\)](https://creativecommons.org/licenses/by/4.0/).