RE-ENGINEERING STRATEGY AND PERFORMANCE OF LARGE MANUFACTURING FIRMS IN KENYA

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Abstract

Purpose: Most of the large manufacturing firms in Kenya have been experiencing declining performance in terms of revenue, sales and the profit margins for more than a decade. This has seen some of the large manufacturing firms in the country consider strategies such as relocating or restructuring their operations, opting to serve the local market through importing from low-cost manufacturing areas instead of adopting turnaround strategies. This therefore prompted a question on whether turnaround strategies such as reengineering strategy are effective for the manufacturing firms; hence the motivation of this study.

Methodology: This study was informed by theory of constraints. A descriptive research design was adopted while 708 large manufacturing firms in Kenya registered under the Kenya Association of Manufacturers were targeted. The sample size for the study was 249 firms selected randomly from all the 14 sectors of the manufacturing industry in Kenya. The data collection instrument was a questionnaire, while mean, frequencies and percentages were used to describe the data. Correlation and regression analysis were done to show direction, magnitude and significance of the association between the variables.

Findings: The findings revealed that re-engineering strategy had significant and positive influence on the performance of large manufacturing firms in Kenya. The findings further revealed that organizational culture had significant moderating effect on the relationship between reengineering strategy and performance of large manufacturing companies. The study concluded that reengineering strategy as one of the turnaround strategies positively influenced the performance of large manufacturing companies.

Unique Contribution to Theory, Practice and Policy: It is therefore recommended that the management of large manufacturing firms uphold reengineering strategy in order to enhance performance.

Keywords: Turnaround Strategy, Reengineering Strategy, Organizational Culture, Firm Performance, Manufacturing Firms
1.0 INTRODUCTION
1.1 Background of the Study

In the modern business World, organizations are striving to have sustainable performance and revenue generation. However, the turbulence in the market is increasing, and firms are becoming unable to meet their performance goals and objectives. In scenarios where the decline in performance occurs frequently, the severity of decline worsens to the point where the firm is unable to satisfy its obligations (Rose, 2017). To reverse performance decline, an organization needs to adopt turnaround strategies. A good example is that of Asda Chains Company in the UK whose turnaround strategies redeemed it from poor performance. Managers respond to deteriorating performance by selecting corporate strategies that redirect their efforts to improve their firm’s competitive position. Previous literature has described strategic choice employed by firms to reverse deteriorating performance as turnaround strategies (Inyange, 2014).

Re-engineering also commonly known as Business Process Re-engineering (BPR) is a radical redesign of core business processes to achieve dramatic improvements in cost, quality, service, speed, cycle time and overall productivity (Krishna & Chaithanya, 2014). It is a process that cuts across an organization’s various levels with the main focus on satisfying customer requirements and expectations. It calls for an organization to completely abandon its old ways of operations and adapt to new ways of thinking for improved organizational performance (Collett, Pandit, & Saarikko, 2014).

An organization would be driven to re-engineer its processes through improving the quality of its products and reducing the operational costs due to various factors. Where there is a substantial gap between stake-holders expectations and actual organizational performance in business processes such as production quality and customer care services, there is a possible need for re-engineering in order to streamline the organizational operations (Krishna & Chaithanya, 2014). The reengineering in this case would include enhancing the quality of output through upholding better input materials while enhancing customer care through actions like hiring professionals and qualified customer care personnel.

Organizations would be compelled by both internal and external forces to reengineer their processes by improving the quality of their services and enhancing the overall service delivery. These are organizations that are either in deep financial crisis, just about to fall or those that are aggressive and ambitious to prosper in business (Magutu, 2010). Successful implementation of BPR methodologies leads an organization to improve on efficiency and effectiveness of its processes, reduction in operational costs, faster service delivery due to reduction in throughput time, higher flexibility in terms of alternatives and high quality service hence increasing customer value (Muthu, Whitman & Cheraghi, 2006).

The manufacturing sector in Kenya constitutes 70 per cent of the industrial sector contribution to GDP and Kenya Vision 2030 identifies the manufacturing sector as one of the key drivers for realizing a sustained annual GDP growth. The sector has the potential to generate foreign exchange earnings through exports and diversify the country’s economy (KIPPRA, 2016). The contribution of the manufacturing sector to GDP has continued to stagnate at about 10 per cent,
with contribution to wage employment on a declining trend (RoK, 2016). Kenya’s share of manufacturing exports to the global market is about 0.02 per cent. While this compares favourably with neighbouring Uganda and Tanzania at 0.016 per cent and 0.019 per cent respectively, it is unimpressive when compared with South Africa, Singapore, China and Malaysia whose global share of manufacturing exports is about 0.3 per cent, 2.4 per cent and 1.3 per cent, respectively. According to a recent Kenya economic report, low value addition and high costs of production impede competitiveness of Kenya’s manufactured products in the global market (IEA, 2016).

It is estimated that manufacturing firms in Kenya have lost 70 per cent of their market share in East Africa in the last 25 years (RoK, 2014; Kihara, 2016). Companies have relocated or restructured their operations, opting to serve the local market through importing from low-cost manufacturing areas such as Egypt therefore resulting in job losses (Nyabiage & Kapchanga, 2014). According to a World Bank report, in spite of Kenya being praised for its robust economy that is set to become one of the top five fastest-growing in sub-Saharan Africa, manufacturing output remains low compared to other sectors. This has resulted in Kenya being a heavy consumer of goods produced in the Far East. Moreover, the relative size of Kenya’s manufacturing sector has been stagnant, and at the same time the sector has lost international competitiveness and is struggling with low productivity and structural inefficiencies (WB, 2014). A need for turnaround strategy among manufacturing firms is hence inevitable.

1.2 Statement of the Problem

Statistics from World Bank show that a good number of large scale manufacturers operating in Kenya have been registering stagnation and declining profits and on the whole, manufacturing sector has lost 70 per cent of its market share in East Africa in the last 25 years (RoK, 2016). In the year 2016, manufacturing sector in Kenya contributed barely 10% to the GDP which represented a 2.4% decrease from the previous year (KNBS, 2016). Cadbury Kenya closed down its manufacturing plant in Nairobi after its net profits fell by 58.7 per cent to $493,237 from $784,783 while Eveready Ltd reduced its production capacity to 50 million units annually, down from a previous high of 180 million per year (RoK, 2014). On the other hand, Tata Chemicals Magadi scaled down its operations by closing down its main factory (Kandie, 2014). The turnaround efforts have achieved mixed results (Nyabiage & Kapchanga, 2014; Carlinn, 2018).

Empirical studies have indicated that a company’s future can be improved by adopting turnaround strategies such as reengineering strategy (Inyange, 2014; Stimson, Stough and Roberts, 2016). The authors contend that turnaround strategies like reengineering strategy are vital for firms in the realization of sustainable economic performance. Despite the contextual differences in these studies, there is little effort to link strategies with performance and the current study sought to fill the existing gaps by establishing the influence of reengineering strategy on performance of large manufacturing firms in Kenya with organizational culture as the moderating variable.

1.3 Study Objectives

i. To assess the influence of re-engineering strategy on performance of large manufacturing firms in Kenya
ii. To establish the moderating influence of organizational culture on the relationship between reengineering strategy and performance of large manufacturing firms in Kenya

1.4 Research Hypotheses
1. \( H_{01} \) Re-engineering strategy does not influence the performance of large manufacturing firms in Kenya
2. \( H_{02} \) Organizational culture does not moderate the relationship between reengineering strategy and performance of large manufacturing firms in Kenya

2.0 LITERATURE REVIEW
2.1 Theoretical Review
The Theory of Constraints (TOC) was first put forward by Goldratt (1984) in a business novel known as *The Goal*. The theory aims at pointing out the basics of an organization being designed to grow and enhance its performance through properly controlled operations. Theory of Constraints identifies the most important limiting factor in achieving an organization’s goal and improving that constraint until it is no longer the limiting factor. In this regard, an organization identifies its core processes requiring dramatic improvement and redesigns them accordingly. The theory of constraints recognizes an organization as a system of interlinked processes, it is the weakest link that is a constraint and needs to be improved (Goldratt, 1984).

According to Inman, Sale, and Green (2009), the TOC is the management philosophy that provides a focus for continuous improvement that results in enhanced organisational performance. Boyd and Gupta (2004) defined the TOC as clearly identifying an “orientation to gain” along with its three dimensions: mental models, measures and methodology. As pointed out by Gupta and Boyd (2008), the TOC provided clearer and more reliable approaches on how to enhance the organizational operations with the main aim of promoting efficiency through which performance is achieved. Montgomery (2010) argued that if TOC is effectively implemented as a management philosophy, organizations extend their ability to record increased profit, reduced inventory levels and operating expenses, thereby improving organisational performance.

Business process re-engineering prioritizes core business activities and addresses the constraints in them. As pointed in the TOC, identifying the bottlenecks affecting the company from achieving its goals and coming up with ways to mitigate the tailbacks is one of the major foundations of firm performance. In the context of this study, re-engineering is a strategy aimed at aligning the operations of the firms towards the identified pathway in order to enhance performance. This therefore paves way for the adoption of the theory in assessing the influence of re-engineering strategy on the performance of large manufacturing companies in Kenya.

2.2 Empirical Review
Altinkemer, Chaturvedi, and Kondareddy (2008) conducted a study on business process reengineering and organizational performance in Indonesia. The study results suggested that many companies were not implementing BPR alone, but as one of the component of a set of change approaches that include strategic rethinking of business direction and less radical process improvement. The study findings revealed that process change seems to be correlated with the
productivity by employees, but its effect on the other financial performance measures is not evident. The study results suggested that there was need for organizations to focus more deliberately on the effect of process change on these measures, and integrate BPR with other change approaches and move towards a continuous change paradigm.

Aremu and Ayanda (2008) conducted a study on the impact assessment of business process reengineering on organisational performance in Ghana. The objective of the study was to assess the impact of reengineering on organizational performance and to uncover how business process reengineering can help organizations to effect innovative and strategic changes in the organisation. The study used primary data that was analysed through simple percentage analysis and regression analysis. The study findings revealed that business process reengineering has become useful tool for any corporate organisations that are seeking for improvement in their current organizational performance and intends to achieve cost leadership strategies in their operating industry and environment.

Setegn, Ensermu, and Moorthy (2013) conducted a study to assess the effect of business process re-engineering on organizational performance in Ethiopia. The data for study were obtained from primary source. The study used both quantitative and qualitative methods. The instrument used to gather quantitative data was Likert scale questionnaire whereas for qualitative data observation and interview was used. The study findings revealed that through reengineering of business processes, speed of service delivery was enhanced and so was the quality of services thus steering customer satisfaction. The results further revealed that business process reengineering was adopted especially during periods of decline efficiency and effectiveness as a way of getting rid of processes that did not align with the goals and objectives of the firm. The study recommended that reengineering process remains an effective tool for organizations striving to operate effectively and efficiently.

Ogada (2017) conducted a study that looked into the relationship between business process re-engineering and organizational performance of commercial state corporations in Kenya. The study adopted a census in which the entire population was considered. Both primary and secondary data sources were used. The quantitative data generated were analysed with the aid of Statistical Package for Social Sciences (SPSS). The study findings revealed that there is a significant relationship between BPR Methodologies and organizational performance. The study used Pearson’s correlations as model of analysis. The results imply that business process reengineering contribute more to the organizational performance of commercial state corporation.

A study by Mwihaki (2016) examined Business Process Re-engineering and operational performance at the Nairobi City County. Data was collected through structured questionnaires. In order to define the sample profile for the study, descriptive statistics were used and Pearson correlation coefficient was applied in establishing the level of significance for the values of variables obtained. The study findings revealed that there was a statistically significant association between business process reengineering and operational performance.
2.3 Conceptual Framework

![Conceptual Framework Diagram]

3.0 RESEARCH METHODOLOGY

3.1 Research Design

The study employed a descriptive survey research design. Descriptive research is conducted to describe the present situation, what people currently believe, what people are doing at the moment and so forth (Neuman, 2013). This research design was suitable in answering the what, which and when questions which were the main questions of this study as it sought to establish what influence reengineering strategy has on performance of manufacturing firms in Kenya.

3.2 Target Population

The target population for this study was the entire population of 708 large manufacturing firms which were registered members of Kenya Association of Manufacturers (KAM, 2017). The firms were stratified into 14 manufacturing sectors and all were considered for this study.
Table 1: Target Population

| Number | Sector                                | Population | Percentage |
|--------|---------------------------------------|------------|------------|
| 1      | Food and Beverages                    | 146        | 20.62      |
| 2      | Chemical and Allied                   | 60         | 8.47       |
| 3      | Plastics and Rubber                   | 58         | 8.19       |
| 4      | Metal and Allied                      | 73         | 10.31      |
| 5      | Paper and Paper Board                 | 56         | 7.91       |
| 6      | Building Construction and Mining      | 31         | 4.38       |
| 7      | Energy, Electrical and Electronics    | 33         | 4.66       |
| 8      | Fresh Produce                         | 12         | 1.69       |
| 9      | Leather and Footwear                  | 6          | 0.85       |
| 10     | Motor Vehicle and Accessories         | 42         | 5.93       |
| 11     | Pharmaceutical and Medical Equipment  | 19         | 2.68       |
| 12     | Services and Consultancy              | 101        | 14.27      |
| 13     | Textiles and Apparels                 | 47         | 6.64       |
| 14     | Timber, Wood and Furniture            | 24         | 3.39       |
| Total  |                                       | 708        | 100        |

3.3 Sampling Technique and Sample Size

The study used Kothari (2010) formula to determine the sample size as shown below;

\[ n = \frac{z^2 \cdot p \cdot q \cdot N}{e^2 (N - 1) + z^2 \cdot p \cdot q} \]

\[ n = \frac{(1.96 \times 1.96) \times (0.5 \times 0.5) \times 708}{(0.05 \times 0.05) \times 708 + (1.96 \times 1.96 \times 0.5 \times 0.5)} \]

\[ n = 249.03 \]

The sample size therefore comprised of 249 respondents which was drawn as herein shown on table 3.2. This represents 35% of the target population. Mugenda and Mugenda (2008) recommends 10% sample size from a large population, 30% sample size from a smaller population. A sample size of 35% of the total population is hence good for the study. The study then stratified the 249 firms across the 14 sectors so as to reduce sampling bias.
Table 2: Distribution of the Sample Size

| Number | Sector                              | Population | Sample Size | Percentage |
|--------|-------------------------------------|------------|-------------|------------|
| 1      | Food and Beverages                  | 146        | 51          | 20.62      |
| 2      | Chemical and Allied                 | 60         | 21          | 8.47       |
| 3      | Plastics and Rubber                 | 58         | 20          | 8.19       |
| 4      | Metal and Allied                    | 73         | 26          | 10.31      |
| 5      | Paper and Paper Board               | 56         | 20          | 7.91       |
| 6      | Building Construction and Mining    | 31         | 11          | 4.38       |
| 7      | Energy, Electrical and Electronics  | 33         | 12          | 4.66       |
| 8      | Fresh Produce                       | 12         | 4           | 1.69       |
| 9      | Leather and Footwear                | 6          | 2           | 0.85       |
| 10     | Motor Vehicle and Accessories       | 42         | 15          | 5.93       |
| 11     | Pharmaceutical and Medical Equipment| 19         | 7           | 2.68       |
| 12     | Services and Consultancy            | 101        | 36          | 14.27      |
| 13     | Textiles and Apparels               | 47         | 17          | 6.64       |
| 14     | Timber, Wood and Furniture          | 24         | 8           | 3.39       |
| Total  |                                     | 708        | 249         | 100        |

3.4 Data Collection

The primary data collection instrument in this study was a questionnaire. This is because questionnaires allow the present respondents to their facts on the subject matter independently enabling a greater depth of response. The study collected primary data using structured questions and captured information through a 5-point Likert scale. Likert scale is an interval that specifically uses five anchors of strongly disagree, disagree, neutral, agree and strongly agree.

Questionnaires were administered by the researcher and a research assistant. A total of 249 questionnaires were distributed to the sampled manufacturing entities as per the sampling frame, targeting one respondent in each firm.

3.5 Data analysis and Presentation

Data gathered using the questionnaires was analyzed quantitatively using both descriptive and inferential statistics using SPSS. Descriptive statistics including the mean and standard deviation were used to capture the characteristics of the variables under study. Inferential statistics were also used in the study. Inferential statistics are methods of establishing relationships between variables.

4.0 RESEARCH FINDINGS AND DISCUSSION

4.1 Response Rate

A response rate of 83.5% (208 of the 249 respondents) was achieved and the data used for analysis. This therefore makes the study appropriate to make conclusions and recommendations.
4.2 Re-engineering Strategy

The study sought to assess the influence of re-engineering strategy on performance of large manufacturing firms in Kenya. The study sought to find out the extent to which quality improvement, minimization of operating costs and enhancing service delivery influenced performance of large manufacturing firms in Kenya. The respondents were asked to indicate their level of agreement or disagreement on specific statements based on a five-point Likert’s scale. The findings are as herein presented.

As the findings in table 1 portray, majority of the respondents disagreed that their respective firms identified customer requirements to develop strategic purpose to meet their demands as far as quality, timeliness and efficiency were concerned. The findings imply that re-engineering, although it might not be effectively adopted is a key turnaround strategy that influences the performance of large manufacturing firms in Kenya. Through focus on coming up with new ways of doing things and focusing on customer-based service delivery and production, the large manufacturing entities gain more competitive ground thus promoting their performance (Ogbo, Attah, & Ugbam, 2015).

| Statements                                                                 | Mean | Std. Dev. |
|---------------------------------------------------------------------------|------|-----------|
| The firm identifies customer requirements and develops strategic purpose  | 2.56 | 1.30      |
| to meet their demands as far as quality, timeliness and efficiency are    |      |           |
| concerned                                                                |      |           |
| Some processes are removed in the operations of the company so as to      | 3.25 | 1.24      |
| reduce the operational costs                                             |      |           |
| The firm carries out frequent performance analysis on existing processes  | 3.01 | 1.23      |
| to remove those that are not necessary                                   |      |           |
| The firm has focused on identifying the key measures that can be used to  | 3.34 | 1.21      |
| enhance service delivery and customer satisfaction                        |      |           |
| The management of the firm emphasizes on the quality of products and     | 3.22 | 1.31      |
| services offered to our customers                                        |      |           |
| The firm selects core business process that have impact on customers and  | 2.92 | 1.15      |
| better income generating thus avoiding those that are more costly and with|      |           |
| little returns                                                            |      |           |
| The firm implements new processes and conducts performance review to      | 3.03 | 1.19      |
| identify the gaps to be filled as far as reengineering is concerned       |      |           |
| Re-engineering strategy has seen the performance of the company increase  | 3.38 | 1.23      |
| in the recent past                                                        |      |           |
| Overall Mean                                                              | 3.09 | 1.23      |

4.3 Organization Culture

The study sought to establish the moderating effect of organizational culture on the relationship between turnaround strategies and performance of large manufacturing firms in Kenya. The study aimed at establishing the agreement level of respondents on statements on organization
culture as an aspect of performance of large manufacturing firms in Kenya. Organizational culture was operationalized as team orientation, results driven and effective communication. The findings as shown in table 2 revealed that in most of the large manufacturing firms, employees were frequently involved in decision making processes as evidenced by a mean of 3.31 and a standard deviation of 1.15. The findings imply that different cultural norms enhance decision making process thus playing a key role in determining the success of turnaround strategies in promoting firm performance. For any strategy in an organization to achieve the best results, there should be a supportive culture whereby the personal goals of the employees align with those of the company.

**Table 2: Descriptive Results on Organization Culture**

| Statements                                                                 | Mean | Std. Dev. |
|---------------------------------------------------------------------------|------|-----------|
| Employees are frequently involved in decision making processes in our firm | 3.31 | 1.15      |
| The organizational management is concerned with the relationship among employees and plays its role in promoting the relationship | 3.22 | 1.21      |
| The organizational management encourages cooperation across different departments and groups in the firm | 3.09 | 1.16      |
| The organization has embraced a shared vision of what the organization will be like in the future | 3.48 | 1.12      |
| The firm management encourages teamwork among the employees in carrying out the firm operations | 3.38 | 1.14      |
| The top management frequently delegates duties to employees so as to create a capable team of leaders | 2.85 | 1.29      |
| The company continuously invests in the skills of employees through training and development | 2.78 | 1.26      |
| There are clear and consistent set of values that governs the way business is done in our firm | 3.17 | 1.17      |
| The mission statement of the organization is properly constituted, communicated and aligned with the organizational goals | 3.12 | 1.20      |
| **Overall Mean**                                                          | **3.15** | **1.18**   |

**4.4 Performance of Manufacturing Firms in Kenya**

**Sales Turnover**

The study sought to find out the sales turnover of the companies as a way of establishing their performance. The findings as shown in Figure 2 revealed that the manufacturing companies recorded varying sales turnover. In 2019, the large manufacturing companies recorded an average sales turnover of Kshs.20.03 billion and in the year 2020, the companies recorded an average of Kshs.20.64 billion in sales turnover. This shows an upward trend in sales volume although the average increase is low.
The findings as shown in Figure 3 revealed that in the year 2016, the average ROA for the large manufacturing firms was -19.5% meaning that most of the companies in the year 2016 did not meet their financial overheads. In the year 2017, the average ROA for the companies increased to -15.3% and in the year 2018, it rose to 15.2% and to 24.1% in the year 2019. In 2020, the average ROA for the companies steadily reduced to -18.1%. Such a decline implies an unpredictable market which therefore calls for the turnaround strategies.

The study sought to find out the annual profits of the manufacturing companies as one of the measures of performance. The findings as shown in Figure 4 portray that in 2019, the firms recorded a decline in the average net profit to record Kshs.899.49 million and in the year 2020, the average net profit declined to Kshs.394.62 million. The trend in average net profits among the large manufacturing firms is unstable.
4.5 Correlation Results

Results of the Pearson correlation, as shown in Table 4 below, indicate that there is a significant positive correlation between re-engineering strategy and performance of manufacturing firms (r=0.551, p value <0.05). The findings indicate that the study’s independent variable (re-engineering strategy) has a strong positive association with the dependent variable (performance of manufacturing firms). This implies that any positive changes in the organizations’ re-engineering strategies would enhance performance of large manufacturing firms in Kenya.

![Figure 4: Profits Margin](image)

Table 4: Correlation Matrix

|                        | Performance of manufacturing firms | Re-engineering Strategies |
|------------------------|-----------------------------------|---------------------------|
| Performance of         | (r)                               | 1                         |
| manufacturing firms    | Sig. (2-tailed)                   | N                         |
|                        | N                                 | 208                       |
| (r)                   |                                    | .551*                     |
| Re-engineering Strategy| Sig. (2-tailed)                   | .000                      |
|                        | N                                 | 208                       |

*Correlation is significant at the 0.05 level (2-tailed)

4.6 Hypothesis Testing

\[ H_{01}: \text{Re-engineering strategy does not positively and significantly influence performance of large manufacturing firms in Kenya.} \]

\[ Y = \beta_0 + \beta_3 X_3 + \epsilon \]
According to Table 4 above, the value of R square is 0.451 which means that 45.1% variation in performance of large manufacturing firms in Kenya was due to re-engineering strategy, with the rest of variation in performance of large manufacturing firms in Kenya being explained by other factors.

**Table 4: Model Summary for Re-engineering Strategy**

| Model | R     | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------|----------|-------------------|---------------------------|
| 1     | .671a | .451     | .448              | .56390                    |

Predictors: (Constant), Re-engineering Strategy

Analysis of Variance (ANOVA) consists of calculations that provide information about levels of variability within a regression model and form a basis for tests of significance. The "F" column provides a statistic for testing the hypothesis that all \( \beta \neq 0 \) against the null hypothesis that \( \beta = 0 \) (Weisberg, 2005). From the findings in Table 4.29, the F-statistic value was 168.895 at a significance level of 0.000 which is less than 0.05 thus the model was statistically significant in predicting how re-engineering strategy influenced performance of large manufacturing firms in Kenya.

**Table 5: ANOVA (Analysis of Variance) for Re-engineering Strategy**

| Model     | Sum of Squares | df | Mean Square | F      | Sig. |
|-----------|----------------|----|-------------|--------|------|
| Regression| 53.706         | 1  | 53.706      | 168.895| .000b|
| 1         | Residual       | 206| .318        |        |      |
| Total     | 119.212        | 207|             |        |      |

a. Predictors: (Constant), Re-engineering Strategy
b. Dependent Variable: Performance of Large Manufacturing Firms

Based on the regression results shown on Table 6, holding re-engineering strategy constant at zero, performance of manufacturing firms in Kenya would be 0.826. The Beta coefficient for the variable was 0.667. A positive unit change in re-engineering strategy would lead to a 0.667 increase in performance of manufacturing firms in Kenya. At 5% significance level, re-engineering strategy had a p=0.000 which is <0.05, and hence the study rejected the null hypothesis that re-engineering strategy does not positively and significantly influence the performance of large manufacturing firms in Kenya. The results concur with those of Ogada (2017) who established that business process re-engineering is a useful tool for any corporate organisation in that it enhances the capability of the firm to outdo the competitors and enhance performance. Setegn et al. (2013) suggested that re-engineering is a key aspect in promoting firm performance through creation of a ground for the company to realize its potential thus focusing on re-establishment. Goldratt (1984) while supporting the theory of constraints argued that
business process re-engineering prioritizes core business activities and addresses the constraints in them through which competitiveness and performance is enhanced.

**Table 6: Coefficient results for Re-engineering Strategy**

| Model                               | Unstandardized Coefficients | Standardized Coefficients | t     | Sig.  |
|-------------------------------------|----------------------------|---------------------------|-------|-------|
| (Constant)                          | .826 (.163)                | .671 (.051)               | 5.059 | .000  |
| Re-engineering Strategy             | .667 (.051)                | .671 (.051)               | 12.996| .000  |

a. Dependent Variable: Performance of Large Manufacturing Firms

**4.6.1 Moderating Effect of Organizational Culture**

The study sought to find out the moderating effect of the organizational culture on the relationship between reengineering strategy and performance of large manufacturing firms in Kenya. The model was of the form:

\[ Y = \beta_0 + \beta_1 X_1 Z + e \]

The regression coefficients results are as shown in Table 7. As the results show, it is evident that the interaction effect between reengineering strategy and organizational culture has a Beta coefficient of 0.042 with a P-value of 0.043<0.05. The findings imply that organizational culture has a significant moderating effect on the relationship between reengineering strategies and performance of large manufacturing firms.

**Table 7: Regression Coefficients**

| Model                               | Unstandardized Coefficients | Standardized Coefficients | t     | Sig.  |
|-------------------------------------|----------------------------|---------------------------|-------|-------|
| (Constant)                          | 1.351 (.094)               | .241 (.021)               | 14.401| .000  |
| Reengineering Strategy*Organizational Culture| .042 (.021)               | .241 (.021)               | 2.041 | .043  |

a. Dependent Variable: Organizational Performance

According to Martins *et al.* (2011), organisational culture relates the employees to Organisation’s values, norms, stories, beliefs and principles and incorporates these assumptions into them as behavioural set of standards. Önday (2016) argued that the relationships between the workers and management greatly influence productivity.
5.0 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion of the Study
The study sought to analyse the influence of re-engineering strategy as one of the turnaround strategies on performance of manufacturing firms in Kenya. The findings from the study revealed that majority of the respondents disagreed that their respective firms identified customer requirements and developed strategies to meet the demands in terms of quality, timeliness and efficiency. The study concluded that manufacturing firms record better performance out of re-engineering through improving the quality of their products and reducing operational costs. The study concludes that large manufacturing firms in Kenya could be facing declined performance as a result of little focus on re-engineering and coming up with better ways of doing business so as to enhance efficiency and improve on service delivery.

5.2 Recommendations of the Study
Large manufacturing companies in Kenya currently face increased competition and one of the major ways to counter this is through re-engineering. This is whereby the companies come up with better and modern ways of doing business to ensure they meet customer needs and at a lesser cost. The companies ought to invest in new operation methods and ensure that they offer standards that compare or exceed those of their competitors through which they can enhance their performance and outdo the competitors.

To the policy, there is need for proper alignment of the organizational process to allow for easier embrace of reengineering strategy, as a way of enhancing the continued performance of the manufacturing firms. The management of the large manufacturing firms ought to embrace organizational culture as an aspect to control and enhance changes within their organizations. The culture in a given organization plays an essential role in determining the ability of the management to implement new strategies such as turnaround strategies. It is therefore essential for the management to ensure that the culture exemplified in the organizations aligns to the goals and objectives of the organization.

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