

Influence of Process Improvement on Organizational Performance at Consolbase Limited

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Abstract: The logistical companies have a complex supply chain management (SCM) that requires huge resources to implement because of the scope of internal functions as well as external parties' operations. This study investigated the influence of process improvement on performance of Consolbase limited. A descriptive design survey was used for the study. The study population was the employees at the Consolbase Limited in the two branches offices. The study used stratified sampling method to sample the respondents. The study sample size was 130 respondents which was determined using Slovenes formula. Piloting was done to determine reliability and validity by use of 10 respondents. The data was collected by the use of questionnaires as the primary data collection instrument. The study established that process management had a positive and significant influence on organizational performance. The study concluded process improvement enables the organization to optimize existing business processes in order to meet best market standards and improve customer experience. The study recommends that the organization should conduct process improvement on a regular basis as a part of a business strategy. Define and deploy strong business processes to engage employees in a valuable way by distributing responsibility and accountability closer to the work itself.

Keywords: Process management, Organizational Performance, Monitoring, Planning, Resource allocation

I. INTRODUCTION

The context of performance to the logistical companies and other allied players is examined in the context of the ability to have a smooth flow of information materials throughout the stipulated chains (McLaurin, 2007). The performance of logistical companies has two significant examination angles; the financial and operational performance. Tilokavacahi et al (2012) observe that the competitive advantage of logistical management relies greatly on operational performance. In as much as there are two major categories of performance in logistical management, it can be stated that operational performance impacts more and positively on the financial performance. The major performance indicators are pegged on inventory management, order processing, transportation, distribution and information flow (Talib & Rahman, 2010).

The performance of logistical companies can also be summarized to satisfy customer needs in course of logistical operations. Salaheldin (2009) examined the various performance parameters: logistical costs, production lead time, vendor activities, and orders. The transport network has always been pegged on manufacturers, distributors and third-

party players in pursuit of efficient delivery of goods and services. The transport sector players are tossed into two tough choices: decreasing transport costs and improving service delivery choices of customers. This leaves the logistical companies with the balancing act of performance and efficiency (Chao & Lin, 2006). Performance as a management methodology, in the end, relies upon the business execution strategy (Kushwaha & Barman, 2010).

In Europe, various countries have been at the forefront of initiating TQM-related processes. The most notable countries are UK, France, Italy and German. The automotive industry in Europe has seen tremendous improvement in sales globally (Lewis, 2004). The Volkswagen brand from German had had an expansion and patents across five continents in the world: Europe, Africa, East Asia, South America and North America.

In developing countries, the TQM aspect hasn't been fully embraced in system processes. The developing countries products are synonymous with poor quality. A half a century ago some countries were associated with good products, but now have shoddy products like Brazil (Sohal et al., 2001). The poor performance in TQM is related to a lack of political goodwill, lack of commitment by Government agencies in regards to quality control, inadequate education and training (Lakhe et al., 2008). In the last one decade there has been observance in increased competition, increased custom consciousness and changes in export-import policies and various regional market integrations. This has necessitated some developing countries like Egypt, South Africa, Philippines and Cambodia to embrace Quality Improvement Processes (QIP). Some companies in developing countries have re-oriented themselves and obtained collaboration with foreign companies of developed nations to bring in a new boost in quality drive (Davies & Wilson, 2005).

TQM has been used extensively in various sectors like banking, health care, and the energy sector in Kenya. The health care provision in Kenya has been a private-public partnership since independence. The TQM model has constantly been applied to meet customers' needs and services. The TQM model in healthcare has had two main components: delivery of quality medical and medicinal outcome and quality service delivery by health workers (Nayanatara, 2011). Regarding the banking sector, there has been an explosive use of the TQM model by emerging MFIs in Kenya to meet the stipulated CBK regulations and be able to upgrade to fully pledged banks. Quality management

principles (QMP) have been embraced by MFI for TQM and improved the banking process (Dondo, 2013).

Process capability is also part and parcel of TQM process. The process capability analysis entails the quantification of process variability which reflects to improvement of quality process. An improvement of process capability involves increasing the level of manufacturing parts and the technical know-how of the process involved in the quality control process. Process capability also entails study to related facilities and parts in the quality control process are within the economically required tolerances (Chao & Lin, 2006). The process capability is usually determined by the statistical quality control tools (Scagliarni, 2011). The statistical process control can be used in the achievement of process guidance, process stabbing and provision of information vital for decision making process. The most vibrant statistical quality control tool is the PDSA cycle which depicts an all-round management of process control.

The organization performance is examined in the form of efficiency. The efficiency levels of logistical performance are examined in the ratio of normal input levels and output level (Brian & Butz, 2010). The input level of logistical operations are the resources utilized like time, labour, technological processes and order. The organization performance can further be stated to be an aggregation of the measurements in multi-dimensional aspect. The other multi-dimensional aspects are customer retention, return on investment and sales growth (Hancott, 2005).

Statement of the Problem

In Kenya, the performance of logistical segment has been fluctuating from a 2.3 Logistical Performance Index (LPI) figure in 2007 to a high value of 3.3 LPI in 2016. However in the beginning of the year 2017 the LPI value plummeted to 2.7 value (World Bank, 2017). The Shippers Council of Eastern Africa (SCEA) in 2016 stated that the country's ability to trade globally, depends on the quality of logistics services. Majority of the respondent who were both local and international through a survey conducted indicated that quality and performance of logistical services Kenya was below average.

It is estimated that the maritime transport accounts for 80% of the world's voluminous trade (UNCTAD, 2014). Various continents have been linked strategically through the ports at the sea coastline. In order to meet the international ISO qualification standards and stay abreast in market competition, there is need for logistical firms, as part of maritime transport players, to institute and apply TQM measures for increased performance (Zhao & Goodchild, 2010). The logistical companies are at the heart of global trade and are faced with myriad compliance challenges. They are required to be up to date with the latest international standards and practices involved in logistical system processes (Kushwaha & Barman, 2010). The ultimate goal of logistical companies is to satisfy the customers by ensuring that goods are delivered on time,

with little or no damages and at a fairly priced value (Vanichchinchai & Igel, 2009).

Past studies have focused on TQM with other sectors like health care, banking, energy and Agri-business but no comprehensive study has been done to link TQM and its sub sequential performance with logistical companies. Wamuyu (2015) conducted a study on TQM and Kenyan health care. The study entailed use of medical professionals at Kenyatta National Hospital (KNH) and Nairobi hospital in Kenya, as respondents. Through factor analysis the study found out that risk perception, customer satisfaction, staff training and management support had positive influence of TQM. Zain et al (2016) in Yemen used 125 questionnaires sent to branch managers of Micro Finance Institutions (MFIs) to establish role of TQM in MFIs. The study showed that TQM had significant positive effect on management of MFIs in the Middle East countries and supported the Resource Based Views theory. In 2008, Najafabadi conducted a study of effect of TQM on higher learning institutions. The university college of Boras in Sweden was the case study and involved the whole administrative structure. The study found out that when TQM methods were focused on the teaching methods at the university college, there was improved performance in higher level of education.

The logistical companies have a complex supply chain management (SCM) that requires huge resources to implement because of the enlarged scope of internal functions as well as external parties operations. The Kenyan government has heavily invested in the improvement of cargo handling processes at port of Mombasa, lest it is forgotten the numerous ICD spread across the country. Consolbase as a player in the SCM in logistics at Mombasa therefore comes in handy for the study. The study intended to determine the effects of process management on the organizational performance with a focus of logistical firms.

II. LITERATURE REVIEW

Theoretical Literature Review

The study will be guided by the contrast theory that was postulated by Holand, Harvey and Sherif (lee et al, 2000). It examines attitudes of customers before and after product / service use. This theory basically presents the post usage evaluation process. The pre and post usage expectation impact greatly on the performance of product in market (Reimer & Kuehn, 2005). This theory posits that any surprise effect that occur during usage of a product can be exaggerated or magnified by the customers who use the product / service in question. This theory examines the experience in discrepancy in the direction it takes. When an advertisement raises product expectation and the customers' expectation is slightly less, the product or service is likely to reject as totally unsatisfactory. Conversely, when an advertisement under promises and it over delivers beyond expectations of customers there is the likelihood of positive disconfirmation and its perception magnified (Ekinci & Sirakaya, 2004).

The relevance of contrast theory lies in the elements of total quality control. The customer focus which goes hand in hand with system process improvement should be evaluated as they impact greatly on the perceptions of customers. The essence of countering rejections of products / service entails providing just right quality products (Petrick, 2000).

In as much as several studies support this theory, there exists some criticism. The criticism emanates about where the contrast theory dwells more on customer reaction instead on reducing dissonance. The companies in the quality control process should focus on reducing dissonance since customers have a tendency of magnifying the difference that exists between expectation and performance of product or services (Yoo & Park, 2007).

Empirical Literature Review

Process as an element of a firm is basically the unique combination of methods, tools, machines, materials and person (Tague, 2005). Fisher and Nair (2009) conjectured that process improvement as an aspect of TQM behavioural practices. Despite the elements of work variability, the process control and improvement lead to smooth operation of the manufacturing process without missing: material, breakdowns, fixture tools etc. (Vasconcellos, 2004). Various process improvement and process control can be put in place for eventual success in TQM.

A study by Hossein *et al* (2008) in relation to TQM and Higher education level, University college of Boras in Sweden. The study covered the whole administration structure at the University college of Boras. The study examined the TQM approach in delivering quality of education at the higher institutions was adhered to the sustainability of quality of education offered was enhanced through training of key personnel involved in the quality control work and processes. The sustenance of quality as a recommendation to the study could be enhanced through strategic process improvement.

McGinnis *et al* (2005) in his study conjectured that there was need for logistical service providers (LSPs) to have a methodology of dealing with various services they offer to their clients. Process improvement has a relation to quality management. Process improvement is meaningless if the implementers don't comprehend the competitive implication of quality. Garvin (2007) states that there is need for divergent interpretations for quality and work process requirement, which if not implemented obstructs the companies' mission and values of quality. There is great need for LSPs to continuously improve quality by devising mechanism like quality management systems.

Oriental Logistical Company as a major LSP in Hong Kong has had the responsibility of managing and distributing promotional materials of the country's tourism board. It has permanent employees in excess of 200 since 2001. On the international scale it covers its operational areas of China, Europe and USA. The rise in expectation of the customs and

competition in the logistical field has led to Oriental Logistics Company to adopt a QMS. The implementation of the QMS has led to the LSP on Hong Kong to stay abreast with the latest market and sector trends.

Over time there has been some discrepancy of how organizations effectively implement quality and manage it from the original version of thinkers in quality (Cicmil, 2009). Reichheld (2006) stated that up to the 21st century quality was still a great component for the success of the organization. The great think tanks in quality: Deming, Juran and Crosby have three major pillars in its environment. The quality environment was anchored to consumers, technology and policies. To meet the quality expectations of customers and consumers, companies are going a step further in ensuring that there is quality in the supply chain and more so the suppliers.

Ho (2009) conjectures that if organizations are to move beyond processes, there is need to have a balance score card between processes and content. Weick (2005) observed that in some situations when the content exceeds the processes in place, an organization can expand to accommodate inter-organizational sense making. A notable stumbling block to continuous process improvement was the political concerns in the management concerns (Senge, 2009). Political concerns has over time fueled resistance and conflicts in organizations hence downgrading the stipulated quality standards.

III. RESEARCH METHODOLOGY

The research study adopted the descriptive survey design. The study population was the employees at the Consolbase Limited in the two branch offices. The total number as at the end of 2017 was 210 employees. The study adopted the stratified sampling method. The sampling frame involved the entire departments in the Consolbase. The data collection used questionnaires as Primary source of the study. The secondary data was obtained from Consolbase reports, newsletters and journals. The descriptive analysis was done by presenting the data in charts, tables and graphs. The mean and standard deviations were done for both the dependent and independent variables. The Non-parametric test was done by hypothesis testing. The hypothesis testing was done for the null and alternative hypotheses. The coefficient of correlation of the variables was determined by use of Pearson's product correlation coefficient.

IV. FINDINGS

The findings of the influence of process improvement on organizational performance at Consolbase limited, Kenya are indicated in Table 1.

Table 1: Process Improvement

	Mean	Std. Deviation
There is sufficient cleanliness in organization	4.05	.721
There is frequent maintenance of equipment	4.04	.665

There exists implementation and inspection activities	3.85	.714
There is fool proofing through Alarms and control systems	3.67	1.033
There is frequent internal and external audit systems	3.98	.931

Source: Survey Data (2021)

The Table 1 above shows that the respondents agreed to great extent that there was indeed sufficient cleanliness in the organization as a process improvement of total quality. Sufficiency in cleanliness is indeed vital component of the organization performance. Cleanliness gives a gauge on the aspect of quality and also process improvement. This was depicted by a mean value of 4.05 and standard deviation of 0.721.

The aspect of frequent maintenance of equipment at the organization was agreed upon to a great extent. Maintenance of system processes is indeed crucial for meeting thresh able amounts of quality. The maintenance of the equipment and machines reduces wear and tear cost that come about due to continuous use. Another aspect why the frequent maintenance of equipment was agreed upon by the respondents is that it reduces the cases of accidents in the work place that may accrue due to poor functionality of equipment and machines. This is depicted by a mean value of 4.04 and standard deviation of 0.665 in table 4.6 above.

In relation of the aspect of the organization, Consolbase Company, having implementation and inspection activities, it was agreed upon to a large extent by the respondents. Inspection activities on a frequent scale put the organization quality aspects in the limelight. This is depicted by a mean value of 3.85. The respondents also agreed to a good extent the aspect of the organization performing the fool proofing activity of the alarms and control system in the organization. This has an impact of detecting faulty alarms and control systems. This is shown by a mean value of 3.67 and standard deviation of 1.033. Lastly the respondents also agreed to a great extent the existence of internal and external audit process in the organization, Consolbase. There is need to have the audit systems in place so as to guide the organization on financial performance. Financial performance is also an indicator of organizations quality. This is shown by a mean value of 3.98 and standard deviation of 0.931.

The above results of process improvement are similar with Ho (2009) who stated that if organizations are to move beyond processes, there is need to have a balance score card between processes and content. Weick (2005) observed that in some situations when the content exceeds the processes in place, an organization can expand to accommodate inter-organizational sense making. Since the inception of quality control and TQM in the 1960s the Japanese have emphasized the aspect of cleanliness (Best & Neukauser, 2006). Cleanliness has been likened to quality of product because it creates the first and greatest impression to the customer.

Correlation Analysis

Table 2: Correlation Analysis

		Org anisation perf orm ance	Proc ess Imp rove ment			
Organis ation	Pearso n Correl ation	1				
Perform ance	Sig. (2- tailed)					
	N	92				
Process Improve ment	Pearso n Correl ation	.506	1			
	Sig. (2- tailed)	.001				
	N	92	92			

The findings from correlation matrix as presented in Table 2, reveal that the process improvement is positively correlated with organization performance with the positive correlation value of 0.506. This means that an increase in process improvement aspects leads to an increase in the customer focus aspects of the organization.

Model Summary of Regression Analysis

Table 3: Model Summary of Regression Analysis

Mo del	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.578 ^a	.706	.697	1.510
a. Predictors: (Constant), process improvement				

The result in Table 3 show that process improvement explains a factor of 0.697 of the organizational performance at Consolbase limited, Kenya as represented by the adjusted R square. This therefore means that other factors not studied in this research contribute to a factor of 0.303 of the organizational performance at Consolbase limited, Kenya.

Coefficient of Determination of the Variable

Table 3: Coefficient of Determination of the Variable

Model		Unstandardized Coefficients		Standar dized Coeffi cients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.687	1.869		12.2 29	.000
	Process improvement	0.147	.215	.073	0.68 3	.000

Source: Survey Data (2021)

From the above regression model, holding the process improvement at constant, the organizational performance at

Consolbase limited, Kenya would be at a factor of 0.687. The study also revealed that process improvement influenced the organizational performance at Consolbase limited, Kenya to a very great extent at a factor of 0.147.

The resulting regression equation was $Y = 0.687 + 0.147X_1$

Where Y = Organizational performance

X_1 = Process improvement

The study revealed that process improvement had a positive and significant relationship on the organizational performance at Consolbase limited, Kenya as shown by t values ($t=0.683$, <0.05). Garvin (2007) states that there is need for divergent interpretations for quality and work process requirement, which if not implemented obstructs the companies' mission and values of quality.

V. CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER STUDIES

The study concluded process improvement enables the organization to optimize existing business processes in order to meet best market standards and improve customer experience. The organization is able to minimize errors, reduce waste, improve productivity and streamline the efficiency of its internal and external processes. Process improvement is useful for the workflows that require modifications, but without changing their essence.

The study recommends that the organization should conduct process improvement on a regular basis as a part of a business strategy. Define and deploy strong business processes to engage employees in a valuable way by distributing responsibility and accountability closer to the work itself. Improve customer experience by aligning internal business processes to deliver better external customer outcomes. Improve business partner loyalty so as to increase the valuable contribution of those key partners.

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