

**OPERATIONS MANAGEMENT PRACTICES AND
PERFORMANCE OF SCHNEIDER ELECTRIC KENYA**

BY

WASHINGTON KILONZO MBOLONZI

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DECLARATION

STUDENT DECLARATION

This project is my original work and has not been presented for the award of degree in another University.

Signed.....

Date.....

Mbolonzi Kilonzo Washington

D61/72470/2014

APPROVAL

The project has been presented for the examination with my approval as the supervisor.

Signed.....

Date.....

Supervisor name.....

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ABBREVIATIONS AND ACRONYMS

| | |
|--------|---|
| COMESA | Common market for eastern and southern Africa |
| EAC | East African community |
| EPBU | Energy and partner business unit |
| FDI | Foreign direct investment |
| FSA | Firms specific advantages |
| GDP | Gross domestic product |
| ITBU | Information technology business unit |
| JIT | Just-in-time |
| KAM | Kenya association of manufacturers |
| KIA | Kenya investment authority |
| OEE | Overall equipment effectiveness |
| OM | Operations management |
| OMP | Operations management practices |
| RBU | Retail business unit |
| SME | Small and medium enterprises |
| TOC | Theory of constraints |
| TPM | Total productive maintenance |
| TQM | Total quality management |
| WEF | World economic forum |

ABSTRACT

Operations management practices are internal factors that contribute to competence development; and therefore offer competitive advantages for firms. Today's competitive global market is characterized by stringent business regulations, high operating costs, scarcity of resources, and unpredictable demand from increasingly informed customers. This study therefore wanted to establish the operations management practices used by multinational manufacturing firms in Kenya and how they impact performance. Exploratory case study design was used in this study. The focus of this study was Schneider Electric Kenya. This study targeted at least 100 employees from senior, middle and lower level of management involved directly with the operations management decisions. These levels gave a precise inference of the target population. The study depended on essential information, which was gathered by way of semi-structured questionnaires that had both open ended and closed questions. The researcher organized, tabulated and summarized the collected data. Charts and graphs were used to illustrate the findings. Central tendency gauges were further used to represent the analysis findings. A linear regression predictor model was also generated to show the relationship between the dependent and the independent variable. The study revealed that there is regular inspection of machines and facilities and the operators are responsible for their own machine cleaning, lubrication, and regular maintenance. The study revealed that; the organization has a documented quality management system in place and also that the magnitude and frequency of quality related occurrences has reduced significantly over the past one year and that statistical quality control techniques are understood and used. The study concluded that total productive maintenance, total quality management, international lean practices, just in time, six sigma and continuous improvements are operations management practices that aids in decreasing times for new item's advancement and commercialization and also ensures flexibility of organization in adapting to different production capacity thereby in overall improvement in reliability and reduction of costs. The study recommended that the management of the company should set clear policies regarding work comparison; also the management should come with strong internal controls that support the selected operations management practices. The management of the company should adopt the operations management practices for effectiveness and efficiency.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Today's operations supervisors, those in charge of creating and conveying the merchandise and enterprises that we utilize each day, confront a wide assortment of difficulties in the twenty-first century. The exceedingly focused business environment that right now exists, brought about in vast part by the globalization of the world's economies in conjunction with the development in e-trade, has moved the adjust of force from the makers to the customers (Prabhala, 1994). Subsequently, purchasers are presently requesting expanded esteem for their cash. From an operations administration viewpoint this implies giving consistently higher-quality items with shorter conveyance times and better client benefit while at the same time lessening work and material expenses and expanding the use of existing offices all of which interprets into higher efficiency (Heinemann, 2005).

The World Economic Forum (2014) characterizes aggressiveness as the arrangement of foundations, strategies, and variables that decide the level of profitability of a firm. Upper hand is one variable that an association can make a condition of guard against contenders and incorporates an element that permits an association to separate itself from its rivals. The idea of upper hand is specifically identified with fancied estimation of the client (Mehri and Hosseini, 2004). Upper hand incorporates set of abilities and variables that constantly exhibited preferred execution of an organization over contenders (Sadri, 2001).

Operations Management practices are internal factors that contribute to competence development; therefore, they can offer competitive advantages for firms. In this sense, they create competences that can be used as weapons for firms to secure a competitive edge (Hayes; Pisano, 1996). Incline generation is as of now the standard in worldwide assembling, the same as aggregate administration, six sigma and ISO accreditation. Future operations activities will probably be connected with quick reaction to market request, ecological or political change, with utilization of new advances, for example, added substance layer fabricating, with overseeing developed or dispersed supply chains, with information investigation, and with to a great degree quick time to specialty markets for inventive new items (Revelle, 2001).

1.1.1 Operations Management Practices

Operations Management Practices (OMP's) include every one of the exercises important to arrange, create and enhance the business forms required in the assembling of an item (Boyer and Lewis, 2002). OMPs allude to assembling forms, as well as to every one of the operations identified with coordination's and the improvement of new items. OMP's cover various regions including light-footed and incline fabricating, six sigmas, new item advancement, ISO 9000 and ISO 14000, handle investigation and reproduction, quality capacity sending, production network administration, measurable process control, and factual quality control (Voss, 2001). The operations management practices applied in manufacturing firms today are internal lean practices, just-in-time, continuous improvement, total quality management, total productive maintenance and six sigma (Lydon, 2007).

Many operations management rehearses thought to be powerful in enhancing operational execution are gathered in "incline" classification. (Shah and Ward 2003) propose these activities, for example, the aggregate administration and persistent change projects, are sections of incline and are classified as above. The activities advancing hence blending with the end goal that they speak to an assortment of best operations management practices (Holweg, 2007).

Just in time (JIT) is a grade method that has concurred far reaching appropriation in assembling organizations. It is a system whereby equipment's and parts for generation are conveyed in time from the dealer to the assembling procedure. This implies there is no holding up time while equipment or parts hold up preceding being handled. The JIT framework incorporates three components; individuals, plant and frameworks. Effective usage requires each of the three components to be viewed as (Seyed-Mahmoud, 2004).

Kaizen or Continuous improvement is an operations management practice that builds up a standard, looks after it, and afterward enhances it. In this unique situation, a standard is characterized as an arrangement of approaches, principles, mandates and methods built up by administration for every real operation. This goes about as rules that empower all representatives to play out their employments effectively.

(Wittenberg, 1994). On the off chance that workers can't hold fast to the standard, administration can give preparing, surveys with changes the standard.

According to (Tobin, 1990) Total Quality Management (TQM) is a coordinated method of conveying upper hand by persistently enhancing all parts of hierarchical culture. It goes past the frameworks of ISO 9000 and locations the fundamental convictions and mentalities that impact practices'. The emphasis been the essential presumptions fundamental to more noticeable levels of value administration (Kujala and Lillrank, 2004).

Six Sigma developed from taking a measurably determined point of view to enhancing producing forms. The capacity of an assembling procedure to reliably convey item to the required standard can be communicated as far as the quantity of faulty items delivered. A six sigma process is one in which 99.99966% of the items produced are measurably anticipated that would be free of deformities (Placzkowski, 2001). Embracing Six Sigma enhances authoritative execution, through the proficiency with which workers are sent, additionally through enhanced profitability (Shafer and Moeller, 2012).

Total productive maintenance (TPM) goes for giving the most productive utilization of hardware. (Bamber et al., 1999) Likewise, with incline, the practice draws in all representatives from top administration down, and executes activity, in light of little self-ruling groups, to guarantee greatest effectiveness and accessibility of assembling gear. The essential measure of TPM execution is general gear adequacy (OEE) esteem, as depicted by Nakajima (1989).

1.1.2 Organizational Performance

The creators Lebars and Euske (2006) give an arrangement of definitions to outline the idea of authoritative execution: They characterize hierarchical execution as an "arrangement of budgetary and nonfinancial markers which offer data on the level of accomplishment of destinations and results." It involves the real yield or aftereffects of an association as measured against its proposed yields (or objectives and goals). It is a wide build which catches what associations do, deliver, and achieve for the different bodies electorate with which they interface and requires a top-down approach to setting performance criteria rather than a bottom-up approach that I often see occurring in many organizations (Baum, 2002).

Because of the expanding focused weight, coming about because of the globalization of assembling exercises and markets, fabricating firms need to reorient their systems, operations, procedures and strategies to stay aggressive. Be that as it may, to accomplish such aggressive standing, these associations must have the capacity to gauge the diverse aspects of their execution. Without the capacity to comprehend and measure execution, benchmarking endeavors went for conveying the best operations administration practices may not hold up under organic products (Schmenner& Vollmann, 1994).

As per Ghalayini and Noble (1996), the writing concerning hierarchical execution developed through two stages. The primary stage began in the late 1880s, while the second stage began in the late 1980s. The principal stage was portrayed by its cost bookkeeping introduction. This introduction went for helping supervisors in assessing the applicable expenses of working their organizations. This approach was later altered, trying to join some money related measures, for example, benefit and quantifiable profit. Be that as it may, even with fairly a budgetary center, this approach got significant reactions. Commentators contended, with support, that concentrating sonly on money related measures, when measuring execution has a tendency to energize fleeting considering (Banks and Wheelwright, 1979; Hayes and Garvin, 1982; Kaplan, 1983). This contention was further strengthened on the ground that conventional fiscally based execution estimation frameworks neglected to quantify and coordinate every one of the variables basic to business achievement (Kaplan, 1983,1984).

The second stage underscored the requirement for the arrangement of money related and non-budgetary measures keeping in mind the end goal to be as per business procedure. Santori and Anderson (1987) focused on the significance of non-money related measures in checking and inspiring the advance of the human element of the association. The researcher will focus on the operational performance only and incorporate both financial and non-financial performance measures.

1.1.3 Multinational Manufacturing firms in Kenya

A multinational is an enterprise operating in several countries but managed from one home country. Generally, any company or group that derives a quarter of its revenue from operations

outside of its home country is considered a multinational firm (International Manufacturing Organization, 2011). Kenya Industrial Research Development Institute (1992) defines manufacturing industry as referring to the sector of the economy that is concerned with the production of goods from raw materials using organized labor and production systems with the aid of machinery. Manufacturing firms can thus be defined as companies that buy certain product as inputs and processes (transforms) these inputs to a value added final product for sale.

According to Kenya Association of Manufacturers (2007), the manufacturing sector plays a significant role in the overall economic performance in the country contributing about 10% to the country's GDP and contributing over 60% of government revenue through taxes with an output value estimated at over Kshs. 502 billion in 2005. The industrial sector is dominated by multinational manufacturing firms and energy production. Food and consumer goods processing have emerged as salient sub-sectors within manufacturing, and the country is expected to remain one of the top exporters of manufactured goods in the region over the medium to long term (Thortorn, 2012).

Despite recording significant presence in the early years of independence many multinational manufacturing firms moved out of Kenya as government policy was not conducive to doing business here compared to other friendly emerging markets especially the emergent Asian blocks (Musyoka, 2015). Only 10% of the current firms in the sector go back to 1960 and before, 45% were established between 1980 and 2000 and the rest after 2000 (Ochanda, 2005). This is not surprising considering the World Economic Forum (WEF) appraisal for the competitiveness of Kenya's products on the international market: Kenya is ranked third (after Mauritius and Morocco) by the World Economic Report and fourth on the continent (behind the Seychelles, Ghana and Zambia) in terms of its products' competitive advantage in international markets (WEF, 2014). According to Kenya Investment Authority (2013), there are forty-three multinational manufacturing firms in Kenya (Kenya Investment Authority, 2013 Appendix 1 List of multinational manufacturing firms in Kenya).

Kenya Association of Manufacturers (2011) perceives that advancement in the amassing part has been driven more by an extension in volumes supplied to the creating markets of Southern

Sudan, East African Community (EAC) and the Common Market for Eastern and Southern Africa (COMESA) instead of viability and productivity changes. To the extent outside trade, the Kenyan collecting part speaks to 34% of admissions/remote exchange pay before development, tea, coffee and tourism (Kenya Investment Authority, 2014).

The difficulties confronted by assembling multinational firms in Kenya incorporate choice to seek after: development ways; key bearing; new administration approach; hazard administration approach; and, social duty strategies (Diaconu and Cuza, 2008). Lipsey (2002) recommends that the operations challenge for assembling multinational firms is to accomplish economic development, gainfulness and aggressiveness in the developing markets while contributing expressly and reliably to the general prosperity of the individual.

Schneider electric formulates its operations management practices at the company headquarters in France and roll them out to their global operations for implementation. The parent company in many cases expects the individual firms across the globe to implement these practices based on parent companies perceived understanding of the global operations. In many cases, operations management practices implementation therefore faces resistance as there is bound to be differences brought about by local factors. These factors which include local operations management styles, shared values, skills, systems and structures may not be congruent with the parent company (Schneider Electric Operations white paper, 2008).

1.1.4 Schneider Electric, Kenya

Schneider Electric is a worldwide pro in vitality administration and mechanization. Schneider Electric creates associated advances and answers for oversee vitality and process in ways that are sheltered, solid, effective and manageable (Alain, 2015). The Group puts resources into Research and Development so as to support advancement and separation, with a solid responsibility to reasonable improvement. From 1836 to today, Schneider Electric with base camp in France has changed itself into the worldwide expert in vitality administration. Beginning from its foundations in the iron and steel industry, substantial apparatus, and ship building, it moved into power and computerization administration. Following 180 years of history, Schneider Electric

has turned out to be today the arrangement supplier that will help you take advantage of your vitality. Schneider Electric history outline (2010).

Schneider Electric's dynamic procurement methodology has conveyed more than 100 brands to its portfolio (Michael, 2015). The most recent obtaining been Power Technics East Africa in 2015 which was a Kenyan claimed organization situated in Nairobi. Control Technics East Africa with backups in Uganda and Tanzania, has been Schneider Electric's restrictive switchboard and switchgears producer in the Region since 1999. This securing takes after Schneider Electric's technique to expand its nearby impression in Africa and be as close as would be prudent to its clients' needs. While some of these brands have vanished, their items, administrations and arrangements have constructed the establishments for Schneider Electric's vitality administration arrangement offer. Schneider Electric Strategic Alliances white paper (2014).

Schneider Electric Kenya offers solutions to make energy safe, reliable, efficient and productive for the Energy and Infrastructure, Industry, Data Centres, Buildings and Residential markets. Schneider Electric is present in Kenya with the objective of helping individuals and organizations make the most of their energy. Schneider Electric Kenya has three main economic business units namely; the Information Technology Business Unit (ITBU), the Energy and Partner Business Unit (EPBU) and the Retail Business Unit (RBU). The EPBU contributes over 60% of the firms' revenue and the rest is shared almost equally between the other two business units. The market share is almost 60% in the East African region by looking at the install base done by Schneider Electric directly or through partners. All its medium and low voltage switchboards and switch gears are manufactured in the Nairobi manufacturing plant. Schneider Electric business units (2007, September 14).

1.2 Statement of the Problem

Each assembling business utilizes procedures or operations to take inputs and make yields that fulfill clients. Operations administration permits the chief to examine forms and enhance them by selecting fitting practices and strategies (Schroeder, 2004). Today's aggressive worldwide market is portrayed by stringent business directions, high working costs, lack of assets, and eccentric request from progressively educated clients. Appropriation of operations administration

rehearses has turned into a survival figure, thus, the need operations practices and offices that are altogether more adaptable and responsive than existing ones (Gould, 1997; James-Moore, 1996). OMP's give an upper hand to a firm. This upper hand may show itself as a value advantage or favorable position along some other measurement of significant worth to the client, for example, conveyance time, adaptability to changing client needs or item quality. OMP's give an upper hand that is manageable after some time, and the organizations are in an ideal situation than before the presentation of these practices and in the long run the advantages get went on to the clients (Schroeder, 2004).

Kenyan assembling firms work in a monetary situation that has been quickly changing including however not constrained to worldwide rivalry from assembling firms in the industrialized and in addition rising economies who appear to ceaselessly endeavor to remove dangers, stay focused by arranging and streamlining their assembling activities (Raman, 2009). The exceedingly aggressive business environment that at present exists in Kenya, brought about in extensive part by the globalization of the world's economies in conjunction with the development in e-trade, has moved the adjust of force from the makers to the purchasers (KAM, 2011). Accordingly, Kenyan customers are presently requesting expanded esteem for their cash. Firms working in these settings appear to have been utilizing their assembling abilities and important operations administration rehearses as aggressive weapons in the market (Wheelwright, 1984).

Significant research has been done to understand the contributions of operations management practices to competitive advantage of organizations (Clark, 1995). According to Alymkulova & Seipulnik (2005) one of the challenges facing multinational manufacturing firms in Central Asia, particularly Kazakhstan and Kyrgyzstan, is sustainability and how to achieve competitive advantage over their competitors particularly locally owned Small and Medium Enterprises (SME's). They found that proper adoption of operations management practices was key to sustainability and survival of manufacturing multinational firms. In Nigeria, available data suggest that profits of manufacturing multinational firms fell by more than 50% in the second half of the 1990s, and hence the need to adopt other operations management practices to ensure survival and competitiveness (Abdelkarim, 2002). With operations budgets increasingly not

matching the requirements to respond to the manufacturing challenges of multinational firms, organizations are deepening forays into operations management practices that will ensure their survival by increasing their competitiveness through efficiency and quality of service delivery (Rawlings, 2010).

Various studies have been carried out on multi-national manufacturing firms in Kenya. Nyamwange (2001) and Kinaro (2006) investigated the operations strategies applied by manufacturing multinational firms for competitiveness in Kenya and found that, strategic partnerships with suppliers, improving on customer relationship, internal lean practices and reliable quality of goods produced as priority operations strategies for competitiveness. Onserio (2011) focused on manufacturing competitive priorities of multinationals in Kenya and found them to be; Cost, Quality, Flexibility, Innovation and Delivery. Chombo (2009) investigated the influence of the global credit crunch on Foreign Direct Investment (FDI) inflows in the Kenyan multinational manufacturing sector. He found that due to size and level of economic value of the Kenyan multinational manufacturing firms, they have minimal contribution to the overall multinational value, and end up being rendered insignificant when formulating FDI strategy and eventually less affected by the global credit crunch.

It is therefore evident that few studies have been carried out to investigate the operations management practices by multinational manufacturing firms in the Kenyan context. There is therefore a gap in literature as far as a study on operations management practices by multinational manufacturing firms in Kenya is concerned. The study tried to answer the accompanying exploration address:

What are the operations management practices adopted by manufacturing multinational firms in Kenya and what's their effect on performance and competitiveness?

1.3 Research Objectives

Main research objective was to find out the operations management practices used by multinational manufacturing firms in Kenya and how they impact performance.

The specific objectives were: -

- i. To identify the operations management practices used by Schneider Electric, Kenya.
- ii. To determine the relationship between the operations management practices used in Schneider Electric, Kenya and the operational performance.

1.4 Value of the Study

The study will be used by multinational firms as a source of information on operations management practices used by manufacturing multinational firms in Kenya. Other manufacturing firms will also benefit by gaining more knowledge on operations management practices being used in the manufacturing sector.

The study will be of value to the government as it will provide a guideline in the design of policies aimed at enhancing the manufacturing sector policy guideline for the regulation and governance of the multinational manufacturing firms.

Scholars will use the results of this project to fill the academic gap as very little has been undertaken on operations management practices used by manufacturing multinational firms in Kenya.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review. First, a theoretical review provided focusing on theories that explain the concept of manufacturing multinational operations management practices. Secondly, the empirical review of the studies that have been done on the operations management practices will be done. The research gap was provided as well as a summary of the studies done on the concept. Finally, a conceptual framework was developed.

2.2 Theoretical Reviews

Various theories have been fronted by various scholars on operation management practices of manufacturing firms. To evaluate the operation management practices adopted by Schneider Electric Kenya, the study is guided by the following theories: theory of constraints (TOC), internalization theory and the production competence theory.

2.2.1 Theory of Constraints (TOC)

Conventional operations administration (OM) course readings see OM as in charge of dealing with the way toward changing contributions to yields. There is an expanding accentuation on the administration of procedures and the cross-practical nature of procedures (Sheu, 2005). TOC underlines the cross-practical and reliant nature of authoritative procedures by review an association as a chain (or a system of chains) of related capacities, procedures, offices or assets where an assortment of sources of info are changed into an assortment of items and administrations which when sold get to be throughput (Mabin, 1998). Despite the fact that it is conceivable to see the generation/operations work as a useful zone with a particular arrangement of sources of info and yields, in the perspective of TOC the part of operations must be assessed with regards to the entire association (Balderstone, 2005). Cox et al. (2003) goes past other OM course books in building up a business frameworks display joining association structure, business procedures and administration bearing as a system for talking about the utilization and effect of TOC ideas overall association. The rate of yield of the entire framework decides the rate at which the reason (the objective) of the association is refined.

TOC advance characterizes an imperative as anything that restricts an association's higher execution as far as its objective (Jacobs, 2006). At the point when seen from an utilitarian viewpoint (e.g. the operations work), a rundown of issues, regularly approximately characterized as limitations, can be entirely long, speaking to issues in every capacity or division (Gupta, 2004). In any case, the chain similarity proposes that not all issues can be the weakest link(s) in the chain; some issue must be the most critical as for the association's capacity to move toward its objective. This weakest connection could be an asset the organization does not have enough of (a physical limitation) or absence of market interest for its items, poor associations with suppliers, or different strategies, techniques or methods for considering (Caspari, 2004). (Schleier, 2003) promote says that these last sorts of requirements are alluded to as non-physical imperatives. Hence, it is conceivable, for instance, that the operations work does not have a sufficient particular asset or a particular asset is not used legitimately because of some strategy limitations, consequently restricting the execution of the whole association of reliant assets, offices and procedures. Along these lines, TOC advances unequivocally an incorporated, cross-practical and frameworks see.

2.2.2 Contingency Theory (CT)

As of late, there has been a developing accord in the OM field about the advantages of drawing bits of knowledge from significant hypotheses in different fields, for example, financial aspects, administration and association hypothesis (Amundson, 1998). This pattern is connected to the acknowledgment that numerous OM issues have a cross-disciplinary nature and has prompted the expanding of the extent of the OM field and the attractive quality of directing interdisciplinary research (Handfield, 2006).

CT is a noteworthy hypothetical focal point used to view associations. This hypothesis holds that associations adjust their structures keeping in mind the end goal to keep up fit with changing logical variables, in order to accomplish elite (Donaldson, 2001). Hypothetical and viable commitments of this approach are accomplished by recognizing essential possibility factors that recognize settings; gathering diverse settings in light of these possibility factors and deciding the best inner association outlines or reactions in every real gathering. CT has yielded numerous bits of knowledge and has gotten considerable experimental support (Donaldson, 2001).

Hierarchical execution might be evaluated utilizing distinctive sorts of factors. Along these lines, scientists may create diverse possibility models coordinated to accomplish distinctive execution goals (Flynn et al., 1999; Pennings, 1975). For instance, the impact of logical components on OM practices might be diverse relying upon whether we consider operational or general business execution.

All associations confront an evolving domain, associations offering stable item giving's and battling in less unusual markets. All items experience phases in presentation, development and decay. As the item moves starting with one phase then onto the next, deals volume increments and item assortment frequently balances out around a couple of essential lines.

Table 2.1: Contingency Theory Is related with Operations Management as shown below.

| Operations Management Area | Appropriate Management Improvement Program(s) and/or Operations Management Practices |
|-----------------------------------|--|
| Production Planning | <ul style="list-style-type: none"> Materials requirements planning (MRP) Manufacturing resources planning (MRP II) Enterprise resources planning (ERP) Warehouse management system (WMS) Manufacturing execution system (MES) Advanced planning and scheduling (APS) Sales and operations planning (S&OP) |
| Performance measurement | <ul style="list-style-type: none"> Activity based costing (ABC) Activity based management (ABM) Balanced scorecard (BSC) |
| Process Improvement | <ul style="list-style-type: none"> Just-in-Time (JIT) Lean production or manufacturing Business process reengineering (BPR) Agile manufacturing Computer-integrated manufacturing (CIM) Theory of Constraints (TOC) Mass customization |

| | |
|-------------------------|--|
| Quality Improvement | Statistical process control (SPC) Total quality control (TQC) Total quality management (TQM) Quality function deployment (QFD) Six Sigma |
| Supply Chain Management | Quick response system (QRS) Efficient consumer response (ECR) Vendor managed inventory (VMI) Collaborative planning forecasting and replenishment (CPFR) Supply chain management (SCM) |

Source: Crandall & Crandall, 2008.

2.2.3 Production Competence Theory (PCT)

Production ability hypothesis is characterized as "how much assembling operations underpins a company's business methodology" (Vickery et al., 1994, p. 308) and assesses operations qualities and shortcomings for certain execution destinations (Cleveland et al., 1989). Vickery (1991) characterized the develops for creation capability hypothesis as recognizable proof and weighting of assembling aggressive needs, operations fabricating basic leadership, usage and assembling execution estimation. With more firms overall transitioning to incorporate maintainability in their business operations, it appears to be important to do as such with these diverse builds keeping in mind the end goal to create and actualize reasonable operations exercises and in this way make firms aggressive (Slack and Lewis, 2011).

For Hayes and Wheelwright (1979), generation fitness is something that an organization either has or needs. Then again, Cleveland et al's. (1989) meaning of creation fitness is a variable as opposed to an altered property, which includes a maker's readiness, ability, or capacity to utilize an item and market particular business operations in respect to its rivals.

2.3 Operations Management Practices

By operations administration hones, the analyst alludes to each technique arrangement done on the shop floor and which is intended to enhance the productivity of creation and calculated procedures for modern merchandise. These incorporate general methodologies including the

"World Class Manufacturing" (WCM) method which grasps point by point apparatuses considered to streamline work environment association, proficient support et cetera. More particular practices will likewise be viewed as, for example, the aggregate quality administration as to quality administration (this practice additionally incorporates particular instruments, for example, Statistical Process Control), the aggregate beneficial support as to upkeep rehearses, the in the nick of time practice, with respect to creation operations (likewise including kanban), six sigma and consistent change.

The selection of aggregate quality administration approach appeared to be emphatically connected with change of executing generally, higher operations effectiveness and with better money related results. Additionally, TQM's outcomes are connected decidedly to an association's piece of the pie in the assembling division, as it is likewise a capable partner for the ideal abuse of monetary resources. Measurable instruments used to control the generation procedures can realize a beneficial outcome on level of quality saw by the last client (business or purchaser) and can significantly decrease creation squander – this out and out prompting better practical results.

To sum up, the primary OM practices can create upgrades in the execution of assembling organizations; beneficial outcomes are even expanded by the collaborations rising up out of the consolidated utilization of various methodologies –, for example, TQM, JIT, TPM and Six sigma streamlining. Reliably, operations administration practices ought not concentrate on only one single strategy, but rather ought to reach the organization as an intricate framework, where collaborations between components are more critical than every single component considered as a different part of the streamlining issue.

2.4 Measures of operational performance

Operational execution, likewise called fabricating abilities or assembling execution measures the degree to which firms really executed as planned versus the measurements of focused needs (Hayes and Wheelwright, 1984). (Junttila, 2000; Schroeder, et al., 2002) Execution by gauging, it accentuates or worried with quick result of production line operations and henceforth is regularly utilized just with the end goal of processing plant execution evaluation as opposed to generally, marketing execution (Junttila, 2000). There is a limit vet when contrasted with

alternate measures of execution since it quantifies execution just from plant point of view (Junttila, 2000).

This idea is regularly measured as far as various measurements in the writing frequently running from two to eight or ten measures. For example, Kim (2006) measures operational execution as far as ten measurements, while Matsui (2007) utilized seven measurements as a part of measuring the idea during the study. As per Leachman (2006), the different measures of assembling execution incorporate perspectives like waste lessening, working effectiveness, opportune conveyance, prevalent quality, inspired representatives and consumer loyalty. Ketokivi and Schroeder (2004) utilized six execution measures: minimal effort, conformance quality, quick conveyance, process duration, volume adaptability, and outline adaptability in their study. Ferna'ndez (2009) utilize the expression "fabricating quality" rather than operational execution, which they operationalize additionally as far as six measurements: cost, quality, conveyance, adaptability, administration, and environment measurements.

The above audit shows that the particular measures of assembling execution shift from writing to writing, and disregarding these varieties, it is noticed that there is agreement in the writing concerning the utilization of numerous measures of this idea. With the end goal of this study, the specialist will receive the four every now and again utilized measures of assembling execution, i.e. fabricating cost, conformance quality, conveyance, and adaptability measurements.

2.5 Operations management practices and performance

These days most organization are working in an exceptionally aggressive and dynamic external environment, they require abilities and practices that contenders can't impersonate and/or create with a specific end goal to survive and/or keep on being focused in the market. Producing firms, specifically, need to have or create operations administration hones to adapt to the aggressive difficulties in the market and thusly make weight on their rivals. The operations administration hones, which are established or installed in the association's operations work, in such manner, can possibly give upper hand, all the more particularly assembling based operational execution to the firm (Junttila, 2013). These practices are useful as an imperative apparatus for enhancing benefits, expanding piece of the overall industry, and growing new markets (Schroeder, 1985), and consequently are the important drivers of operational execution. The fundamental wellspring

of these abilities, thusly, rests in the assembling plant, and particularly in the company's operations work.

The operations capacity is, in this way, a critical business work with regards to assembling that presents beat administration the chances to create upper hand through phenomenal operational execution (Davis,1999).

2.6 Empirical studies

A considerable number of studies have been undertaken on operations management practices. Significant research has been done to understand the contributions of operations management practices to competitive advantage of organizations. Clark (1995) found that operations management practices contributed significantly to competitive advantage if the manufacturing firm adopted a cost leadership strategy. This eventually led to production of high quality products at relatively the same cost. This however didn't explain the contribution of operations management practices to the other business strategies beyond cost leadership.

According to Alymkulova & Seipulnik (2005) one of the challenges faced by multinational manufacturing firms in Central Asia, particularly Kazakhstan and Kyrgyzstan, was sustainability and how to achieve competitive advantage over their competitors particularly locally owned Small and Medium Enterprises (SME's). They found that proper adoption of operations management practices was key to sustainability and survival of manufacturing multinational firms. They however didn't state the operations management practices that were currently been utilized by the multinationals in central Asia and their impact.

Abdelkarim (2002) while assessing the performance of multinationals in Nigeria, found that profits of manufacturing multinational firms fell by more than 50% in the second half of the 1990s, and hence the need to adopt other operations management practices to ensure survival and competitiveness. Operations management practices implementation is an important aspect that can lead to decreasing profits of multinational firms and this wasn't well outlined in the above study by the researcher.

Rawlings (2010) researched on the manufacturing challenges facing multinational firms and found that most multinational manufacturing firms were deepening forays into operations management practices that ensured their survival by increasing their competitiveness through efficiency and quality of service delivery. The researcher however failed to exploit the relationship between competitiveness and external environment.

Nyamwange (2001) and Kinaro (2006) investigated the operations strategies applied by manufacturing multinational firms for competitiveness in Kenya and found that, strategic partnerships with suppliers, improving on customer relationship, internal lean practices and reliable quality of goods produced as priority operations strategies for competitiveness. They however didn't tackle the effect of high operational costs in the country (power & labour) on firm's competitiveness.

Onserio (2011) focused on manufacturing competitive priorities of multinationals in Kenya and found them to be; Cost, Quality, Flexibility, Innovation and Delivery. He however didn't rate each priority contribution to firm's competitiveness.

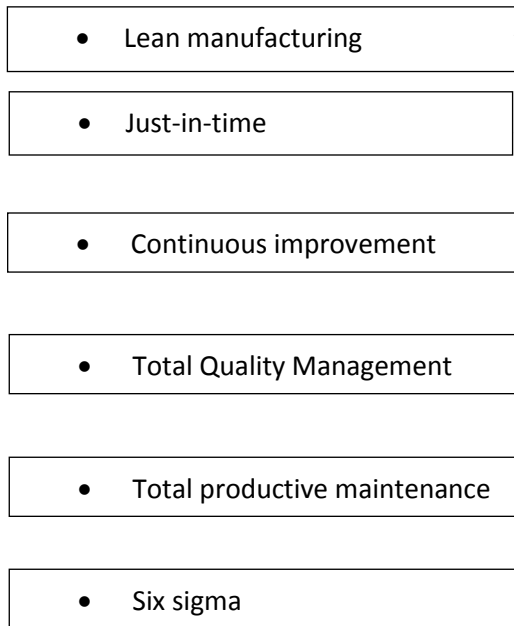
2.7 Conceptual Framework

The utilization of operations management practices by manufacturing firms leads to improved efficiency, reduced costs, improved quality and eventually improved operational performance. This in turn leads to improved growth, profitability and sustainability.

Figure 2.1: Conceptual framework

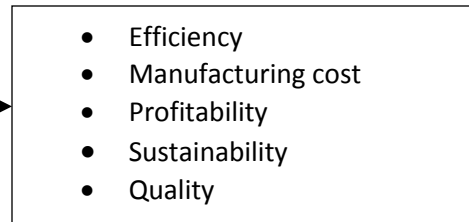
Independent variables

Operations management practices



Dependent variable

Operational Performance



Source: Researcher, 2016

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This part plots examination strategy which was utilized as a part of collection, analysis of data and presentation of the research findings. This chapter is divided into the following parts; scrutinize plan, target populace, information gathering methods and the data tabulation and analysis.

3.2 Research design

Exploratory contextual analysis outline was utilized as a part of this study. Contextual investigations, in their actual substance, investigate and explore contemporary genuine marvel through point by point relevant examination of a predetermined number of occasions or conditions, and their connections. Yin (1984:23) characterizes the contextual analysis scrutinize strategy "as an observational request that explores a contemporary marvel inside its genuine setting; when the limits amongst wonder and setting are not unmistakably clear; and in which different wellsprings of proof are utilized." This outline was reasonable for this study in light of the fact that the examination of the information was led inside the setting of its utilization (Yin, 1984), that is, inside the circumstance in which the action happens. Also, varieties as far as inherent, instrumental and aggregate ways to deal with this contextual analysis took into account both quantitative and subjective examinations of the information.

3.3 Case selection

The focus of this study was Schneider Electric Kenya. The reason for choosing Schneider Electric is because of its large market share and its presence in over 130 countries. The respondents were the production manager, operations manager, quality assurance manager, maintenance manager, factory engineers, brand managers, marketing managers and their team leaders. Generally, these are the persons who are responsible for the manufacturing function and are well placed to understand the operations of Schneider Electric Kenya. This study targeted at least 100 employees from senior, middle and lower level of management involved directly with the operations management decisions. These levels gave a precise inference of the target population.

3.4 Data Collection

The research depended on essential information, which was gathered by way of a semi-formulated survey that had both open and closed questions. The open-ended questions aimed at obtaining qualitative data on the general view of operations management practices utilized at Schneider Electric Kenya and suggestions from the respondents. The closed questions aimed at obtaining quantitative data for statistical analysis. The questionnaire was divided into two parts. Part I gathered information on the company profile while Part II collected information on operations management practices. Secondary data was used to validate the primary data.

3.5 Data Analysis

The researcher organized, tabulate and summarize the collected data. Charts and graphs were used to illustrate the findings. Descriptive analysis was used on the first objective which was to identify the operations management practices used in Schneider Electric, Kenya. Gap analysis was used to evaluate importance and agreement of different operations management practices in Schneider Electric Kenya which was the second objective. To measure OMP's, respondents were asked to report the level of importance and agreement considering six different manufacturing OMP's (JIT, TPM, TQM, continuous improvement, six sigma and lean management). Relapse investigation was utilized to build up the relationship between the operations management practices used in Schneider Electric, Kenya and the operational performance.

The questionnaire was presented in the appendix.

Table 3.2: Summary of data analysis

| No | Objective | Analysis |
|----|--|-----------------------------|
| 1 | To identify the operations management practices used by Schneider Electric, Kenya | Descriptive analysis |
| 2 | To establish the relationship between the operations management practices used in Schneider Electric, Kenya and the operational performance. | Gap and Regression analysis |

Source: Researcher, 2016

CHAPTER FOUR: DATA ANALYSIS, INTERPRETATIONS AND PRESENTATION

4.1 Introduction

This part analyses, interprets and presents the discoveries as per the objectives, which was to identify the operations management practices used by Schneider Electric, Kenya and also sought to establish the relationship between the operations management practices used in Schneider Electric, Kenya and the operational performance. The chapter is divided into three sections which entail the general information, operations management practices, and application and effect of operations management practices in Schneider Electric, Kenya.

4.2 Response Rate

The research had sample size of 100 respondents who were employees from senior, middle and lower level of management involved directly with the operations management decisions. A total of 100 questionnaires were given to the production manager, operations manager, quality assurance manager, maintenance manager, factory engineers, brand managers, marketing managers and their team members as they were well placed to understand the operations of Schneider Electric Kenya. Out of the 100 respondents approached 100 responses were obtained giving a response rate of 100 %.

4.3 General Information

This section entailed the departments in which the employees worked, their highest level of Academic Qualification, the number of years that they had worked with the organization and their opinion on whether operations department played an important role in the organization.

4.3.1 Work Department of the Respondent

The respondents were asked to indicate their respective job positions; the study findings were as presented below

Table 4:3: Work Department of the respondent:

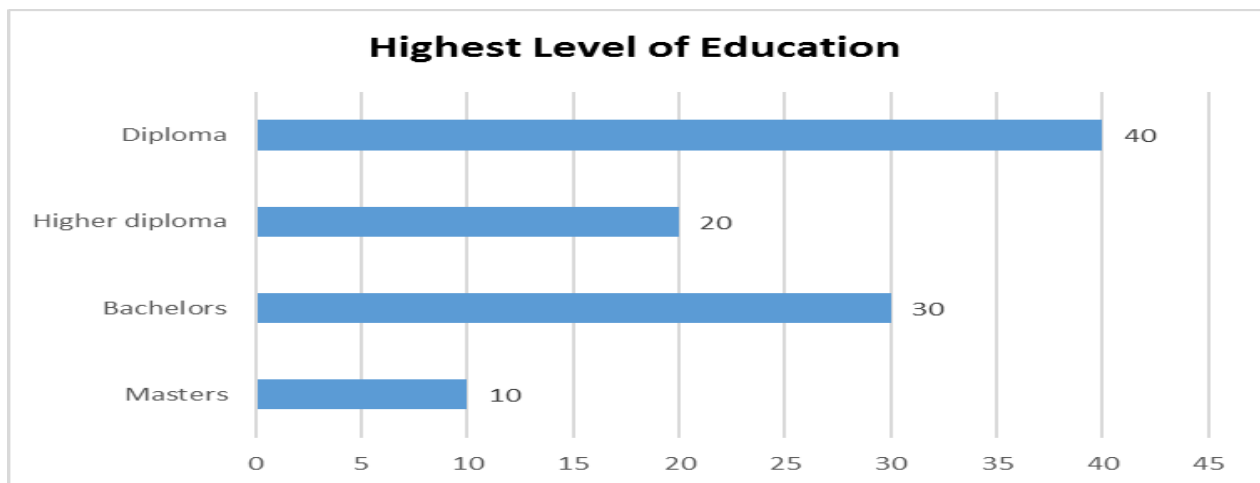
| Department | Frequency | Percentage |
|-------------------|------------------|-------------------|
| Operations | 30 | 30.0 |
| Production | 20 | 20.0 |
| Quality | 20 | 20.0 |
| Maintenance | 20 | 20.0 |
| Marketing | 5 | 5.0 |
| Human Resource | 5 | 5.0 |
| Total | 100 | 100.0 |

As shown in the table 4.3, the study indicated that 30% of the respondents worked in the operations department, 20% worked in production, maintenance and also in quality departments as was indicated in each of the case. Additionally, the study indicated that 5% of the respondents indicated that they worked in marketing and human resources departments. This shows that the study involved employees from all manufacturing categories.

4.3.2 Highest level of Academic Qualification

The researcher requested the respondents to show Academic Qualification of the utmost rank. The study discoveries were as presented in the figure 4.2

Figure 4.2: Highest level of Academic Qualification



As shown in the data 4.2, research indicated 40% of the respondents had their highest education level as a diploma, 30% had bachelors, 20% had a higher diploma while only 10% had masters as the highest education level. The study indicates many participants involved in the study acquired tertiary education with most of them having a diploma and a bachelor’s degree, thus they were well positioned to give credible information regarding the study.

4.3.3 Number of years you Have Worked with the Organization

The questionnaires sought to know the number of years that the respondents had worked in the organization. The study findings were as presented in the table 4.4

Table 4.4: Number of years you have worked with the organization

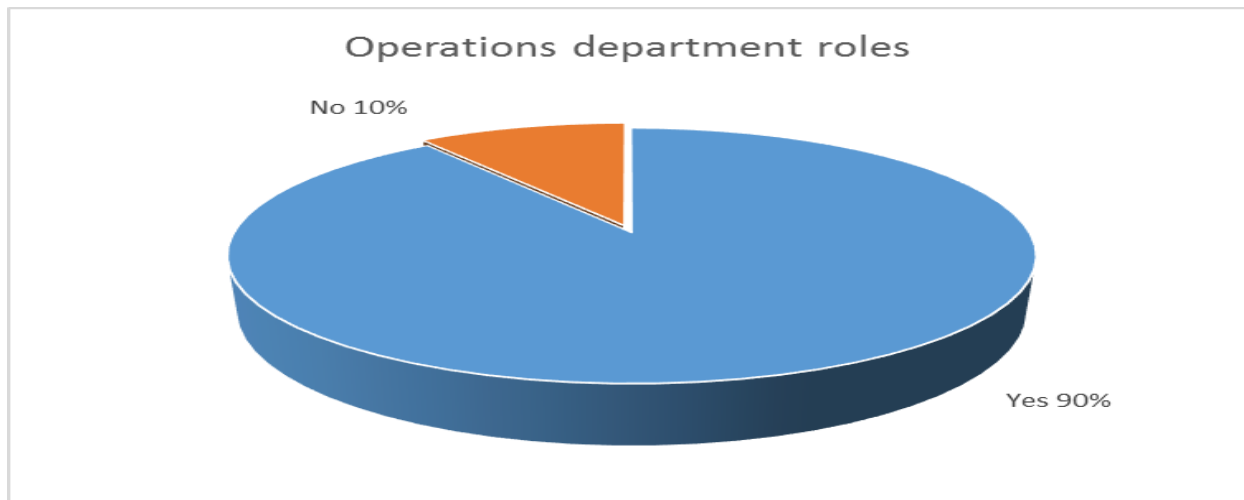
| Number of years | Frequency | Percentage |
|------------------------|------------------|-------------------|
| 10 | 10 | 10.0 |
| 12 | 20 | 20.0 |
| 14 | 10 | 10.0 |
| 3 | 20 | 20.0 |
| 5 | 20 | 20.0 |
| 6 | 10 | 10.0 |
| 7 | 10 | 10.0 |
| Total | 100 | 100.0 |

As shown in the table 4.4, the study indicated that 20% of the respondents as was shown in each of the case worked for a span of 3,5,12 years respectively. Also the study indicated that 10% of the respondents as was shown in each of the case had worked for a period of, 6, 7, 10 and 14 years respectively as was indicated in each of the case. This is an indicator that the respondents involved in the study had vast experience in their work to give reliable information as concerning the study.

4.3.4 Operations Department Role in the Organization

Respondents were asked to give their opinion as to whether the operations department play an important role in the organization. The study findings are as shown in the figure 4.3

Figure 4.3: Operations Department Role in the Organization



As shown in the chart 4.3, this research indicated 90% of participants agreed that operations department play an important role in the organization. On the other hand, 10% of the respondents were of the contrary opinion. This shows that operations department play an important role in the organization as was indicated by majority of the respondents.

4.4 Operations Management Practices

The first objective of the study was to find out on the operations management practices in the company. The study findings are as presented according to each of the aspect pertaining to the operations management practices.

4.4.1 Total Productive Maintenance

Participants were requested that demonstrate the degree to which they complied with the listed aspects about their organization. A scale whereby 1 spoke to unequivocally deviate, 2 spoke to dissent, 3 spoke to neither concur nor dissent, 4 spoke to concur and 5 spoke to firmly concur was utilized. This shows that the higher the mean the higher the agreement according to the questionnaire statement. The study results are as shown below.

Table 4.5: Total Productive Maintenance

| Total Productive Maintenance | Mean | Std. Deviation |
|--|-------------|-----------------------|
| There is a documented maintenance program for shop equipment | 3.900 | 0.568 |
| TPM is done when there is less work or when equipment breaks down | 3.900 | 0.994 |
| There is regular inspection of machines and facilities and the operators are responsible for their own machine cleaning, lubrication, and regular maintenance. | 4.100 | 0.738 |
| The organization keeps detailed TPM and work order records | 4.000 | 0.817 |
| The organization has standardized maintenance checklists | 4.400 | 0.699 |
| There are scheduled regular maintenances and inspections | 4.000 | 1.054 |

As shown in table 4.5, majority of the respondent agreed that; the organization has standardized maintenance checklists this was as was indicated in an aggregate of 4.400 with standard deviation of 0.699, also respondents accepted there is regular inspection of machines and facilities and the operators are responsible for their own machine cleaning, lubrication, and regular maintenance this was as was shown in an aggregate of 4.100 with standard deviation of 0.738. Additionally, the participants accepted that; the organization keeps detailed TPM and work order records as was indicated in an aggregate of 4.000 with standard deviation of 0.817, also by an aggregate of 4.000 with standard deviation of 1.054 respondents accepted there are scheduled regular maintenances and inspections.

Further the study indicated that there is a documented maintenance program for shop equipment this was indicated in an aggregate of 3.900 with standard deviation of 0.568 and also that TPM is done when there is less work or when equipment breaks down this was indicated in an aggregate of 3.900 and a standard deviation of 0.994.

These findings are consistent with those of Tsang and Chang (2010) who revealed that through total productive maintenance prepare center, the cost and quality were enhanced altogether by diminishing and minimizing hardware crumbling and disappointments. Cost of adjust and repairs decreased because of exceptionally restricted items dismisses because of hardware

disappointment. Consequently, the general viability of gear likewise enhanced fundamentally. Furthermore, hardware disintegration was disposed of as the gear worked productively. Self-sufficient support exercises were completed with aggregate representative investment.

4.4.2 Total Quality Management

The researcher sought to know the extent to which the respondents complied about the listed aspects about their organization. A scale whereby 1 spoke to firmly deviate, 2 spoke to dissent, 3 spoke to neither concur nor deviate, 4 spoke to concur and 5 spoke to emphatically concur was utilized. This shows that the higher the mean the higher the extent of agreement according to the listed statement. The study findings were as shown below

Table 4.6: Total Quality Management

| Total Quality Management | Mean | Std. Deviation |
|--|-------------|-----------------------|
| The organization has a documented quality management system in place | 4.200 | 0.632 |
| The magnitude and frequency of quality related occurrences has reduced significantly over the past one year | 4.100 | 0.568 |
| The organization welcomes and acts on end user complaints | 3.900 | 0.568 |
| Quality levels are determined by end user bench marks and the regulatory authorities. | 3.700 | 0.823 |
| Measurable quality control procedures are comprehended and utilized | 4.100 | 0.568 |
| All representatives are urged to check the nature of every operation they finish before continuing to the following operation. | 4.000 | 0.943 |

As shown in the table 4.6, the study indicated that majority of the respondents agreed that; the organization has a documented quality management system in place as was indicated in an aggregate 4.200 with standard deviation of 0.632. Further this study indicated majority agreed that the magnitude and frequency of quality related occurrences has reduced significantly over the past one year and that statistical quality control techniques are understood and used this was indicated in an aggregate of 4.100 and a standard deviation of 0.568 in each case.

In addition, the study also indicated that majority of the respondents agreed that all workers are urged to check the nature of every operation they finish before continuing to the following operation this was shown by an aggregate of 4.000 with standard deviation of 0.943. Also this study showed the organization welcomes and acts on end user complaints as was indicated by an aggregate of 3.900 with standard deviation of 0.568. Further the results showed quality levels are determined by end user bench marks and the regulatory authorities as was indicated in an aggregate of 3.700 with standard deviation of 0.823.

The finding of this study is consistent with the work of Carr and Pearson (2009) which describe that focusing and maintaining total quality management will enable the organizations to be more responsive towards customers' needs and will result creating greater customer loyalty, repeat purchase and willing to pay premium prices for high quality product that will guaranty in increasing market share. Koufteros (1997) and Li (2006) describe quality as one among the measures of operational performance which contributes for competitive capabilities and value-to-customer.

4.4.3 Internal Lean Practices

The researcher sought to know to which extent to the respondents complied about listed aspects about their organization regarding internal lean practices. A scale whereby 1 spoke to firmly dissent, 2 spoke to deviate, 3 spoke to neither concur nor dissent, 4 spoke to concur and 5 spoke to emphatically concur was utilized. This shows that the higher the mean the higher the extent of agreement according to the listed statement. The observations were as presented in the table 4.7

Table 4.7: Internal Lean Practices

| Internal lean practices | Mean | Std. Deviation |
|--|-------------|-----------------------|
| There has been a relentless pursuit to optimize production process | 4.200 | 0.632 |
| Is the organization keen on removing and / or improving inefficient activities? | 4.200 | 0.632 |
| Is the organization emphasizing improved labor productivity and operating efficiency as means of reducing cost, as opposed to sourcing low cost materials and reducing overhead costs? | 4.000 | 0.667 |
| Are there efforts in place to improve equipment performance? | 4.500 | 0.527 |

From the research findings the study indicated that, many respondents strongly agreed that; there are efforts in place to improve equipment performance this was indicated in an aggregate of 4.7 with standard deviation of 0.527. Also the respondents agreed that there has been a relentless pursuit to optimize production process and also that the organization is keen on removing and / or improving inefficient activities, this was as shown by a mean of 4.200 and standard deviation of 0.632 in each case. Further the study indicated that respondents also agreed that the organization emphasized improved labor productivity and operating efficiency as means of reducing cost, as opposed to sourcing low cost materials and reducing overhead costs this was supported in an aggregate of 4.000 with standard deviation of 0.667.

The above findings concur with those of James (2013) who stated that internal lean practices as Lean production associated with continuous pursuit of improving the processes, a philosophy of eliminating all non-value adding activities and reducing waste within an organization. Moslem (2013), on the other hand, also described that internal lean practice can reduce waste and contribute to lower transaction cost. This realizes that as the organization implement lean practices the firm operational performance will be enhanced

4.4.4 Just-In-Time

Respondents were requested that demonstrate the degree to which they complied about the listed aspects about their organization pertaining just in time inventory method. A scale whereby 1 spoke to firmly deviate, 2 spoke to dissent, 3 spoke to neither concur nor deviate, 4 spoke to concur and 5 spoke to emphatically concur was utilized. This shows that the higher the mean the higher the extent of agreement according to the listed statement. The observations were as presented in the table 4.8

Table 4.8: Just in Time

| Just in time | Mean | Std. Deviation |
|--|-------------|-----------------------|
| Is the organization keen on improving on-time delivery? | 3.700 | 0.823 |
| Is there reduction of stocks in stores? | 3.900 | 0.738 |
| There is consistent weight and complication, with an abnormal state of Work-in-Progress things | 4.000 | 0.943 |
| Does the organization adhere to compliance with the daily production as planned? | 4.100 | 0.568 |
| Are there on time deliveries from suppliers? | 4.200 | 0.632 |
| There is stability of the master production schedule | 3.800 | 0.632 |

As appeared in table 4.8, larger part of respondents concurred there are on time deliveries from suppliers as was illustrated in an aggregate of 4.200 with standard deviation of 0.632. Study also indicated respondents accepted the organization adhere to compliance with the daily production as planned as was indicated by a mean of 4.100 and a mean of 0.568. Further respondents agreed that there is reduction of stocks in stores this was indicated in an aggregate of 3.900 with standard deviation of 0.738, as also shown in an aggregate of 3.800 with standard deviation of 0.632, this study indicated that respondents accepted there is stability of the master production schedule and also that the organization is keen on improving on-time delivery this was shown in an aggregate of 3.700 with standard deviation of 0.823. The research results agree with those of Stalk (2008) in his study who identified just in time as an important competitive priority which its source is operational performance.

4.4.5 Six Sigma

The researcher requested that the respondents demonstrate the degree to which they consented about listed aspects about their organization regarding to the six sigma. A scale whereby 1 represented strongly disagree, 2 represented disagree, 3 represented neither agree nor disagree, 4 represented agree and 5 represented strongly agree was used. This shows that the higher the mean the higher the extent of agreement according to the listed statement. The observations were as presented in the table 4.9

Table 4.9: Six Sigma

| Six Sigma | Mean | Std. Deviation |
|--|-------------|-----------------------|
| There are lessening times for new item's improvement and commercialization | 3.800 | 0.632 |
| The organization has flexibility in adapting to different production capacity | 4.400 | 0.699 |
| There is overall improvement in reliability and reduction of costs | 4.500 | 0.527 |
| The company analyses and actively responds to customers' needs and systematically makes use of adhoc practices | 3.900 | 0.994 |
| The organization is ready to gather profitable data and to successfully interface with generation forms | 4.300 | 0.675 |

From the discoveries the study showed that greater part of the respondent concurred firmly that; there is overall improvement in reliability and reduction of costs this was indicated in an aggregate of 4.500 with standard deviation of 0.527. Further respondents accepted: the organization has flexibility in adapting to different production capacity this was indicated in an aggregate of 4.400 with standard deviation of 0.699 and that the organization can gather profitable data and to adequately interface with generation forms as was in an aggregate of 4.300 and with deviation of 0.675. Further respondents accepted the company analyses and actively responds to customers' needs and systematically makes use of adhoc practices as was shown by an aggregate of 3.900 and a mean of 0.994. Also respondents agreed that there is diminishing times for new item's advancement and commercialization as was shown by an aggregate of 3.800 with standard deviation of 0.632.

The results also agree with those of Antony (2013) who revealed that implementing six sigmas had improved the financial, operational and customer performance of United Kingdom National Health Service. Habidin (2014) found lean six sigma implementation has a direct and strong relationship on operations in Malaysian automotive industry. He further revealed that six stigmas' can be used in organization to handling customer complaints.

4.4.6 Continuous Improvement

The researcher had to know the degree to which the respondents complied about the listed aspects about their organization regarding to the continuous improvement. A scale whereby 1

represented strongly disagree, 2 represented disagree, 3 represented neither agree nor disagree, 4 represented agree and 5 represented strongly agree was used. This shows that the higher the mean the higher the extent of agreement according to the listed statement. The study findings were as presented in the table 4.10

Table 4.10: Continuous improvement

| Continuous improvement | Mean | Std. Deviation |
|---|-------------|-----------------------|
| The organization has a determined interest to accomplish cost lessening focuses in all assets. | 4.200 | 0.919 |
| The organization seeks to improve plant equipment effectiveness through technology where it's cost-effective. | 3.800 | 1.135 |
| The organization practices ideas of zero misfortunes in each circle of movement. | 4.200 | 0.789 |
| There is continuous improvement on handling of beneficiaries/end users | 3.800 | 0.919 |
| There is continuous improvement on handling of all activities within the organization. | 3.800 | 1.135 |
| There is focus on re-designing and re-examining work flow. | 4.000 | 0.667 |

As shown in the table 4.10, the study indicated that majority of the respondents agreed that; the organization practices concepts of zero misfortunes in each circle of movement this was shown in an aggregate of 4.200 with standard deviation of 0.789, also as indicated in an aggregate of 4.200 with standard deviation of 0.789 respondents accepted the organization has determined interest to accomplish cost lessening focuses in all assets. Further the study indicated that there is focus on re-designing and re-examining work flow as was indicated in an aggregate of 4.000 with standard deviation of 0.667, and also that. Additionally, the study indicated that there is continuous improvement on handling of beneficiaries/end users as was indicated by an aggregate of 3.800 with standard deviation of 1.135 also that there is continuous improvement on handling of all activities within the organization as was indicated in an aggregate of 3.800 with standard deviation of 1.135.

The study findings agree with those of Hayes and Wheelwright (1984). They asserted that the operations management practices, which are established or implanted in the association's

operations work can possibly give upper hand, all the more particularly assembling based operational execution to the firm. These practices serve as an essential device for enhancing benefits, expanding piece of the pie, and growing new markets and consequently are key drivers of operational execution.

4.5: Application and Impact of Operations Management Practices in Schneider Electric Kenya.

4.5.1 Extent of application of OMP’s by Schneider Electric Kenya.

The respondents were requested to outline the degree of application of OMP’s by Schneider Electric Kenya. The study findings were as presented in the table 4.11. In this case a scale whereby 1 was strongly disagree, 2 was disagree, 3 was neutral, 4 was agree and 5 was strongly agree was used. This indicates that the higher the mean the higher the extent of agreement on application of OMP’s by Schneider Electric Kenya.

Table 4.11: Extent of application of OMP’s by Schneider Electric Kenya.

| Application of OMP’s | Mean | Std. Deviation |
|------------------------------|-------------|-----------------------|
| Internal Lean management | 4.100 | 0.568 |
| Six sigma | 4.000 | 0.667 |
| Continuous improvement | 3.800 | 0.919 |
| Total quality management | 4.100 | 0.876 |
| Total productive maintenance | 3.800 | 0.919 |
| Just-in-time | 4.000 | 0.943 |

From the study discoveries, the study indicated that larger part of the respondents concurred there was the application of; Internal Lean management as was indicated in an aggregate of 4.100 and with deviation of 0.568, application of total quality management as was shown in an aggregate of 4.100 with standard deviation of 0.876. Also there is the application of six sigmas as shown in an aggregate of 4.00 with standard deviation of 0.667. Further there is the application of Just-in-time as was indicated in an aggregate of 4.00 with standard deviation of

0.943. Further the research indicated the organization still applied continuous improvement and total productive maintenance as was shown by an aggregate of 3.800 with standard deviation of 0.919 in each of the case.

4.5.2 The importance of OMP's in Schneider Electric Kenya.

Respondents were requested to indicate the importance of OMP's in Schneider Electric Kenya. They were requested to rate the importance of OMP's in Schneider Electric Kenya according to a scale where 1 was Not at all important, 2 was some importance, 3 was desirable, 4 was Very important and 5 was top priority. The study findings were presented in the table 4.12

Table 4.12: The importance of OMP's in Schneider Electric Kenya.

| Importance of OMP | Mean | Std. Deviation |
|------------------------------|-------------|-----------------------|
| Internal Lean management | 4.200 | 0.632 |
| Six sigma | 4.000 | 0.667 |
| Continuous improvement | 3.800 | 0.632 |
| Total quality management | 3.800 | 0.919 |
| Total productive maintenance | 3.600 | 0.966 |
| Just-in-time | 4.100 | 0.876 |

From the findings the study indicated that majority of the respondents indicated that the following operations management practices are very important in their organization; Internal Lean management as was indicated by an aggregate of 4.200 with standard deviation of 0.632, Just-in-time as was shown by an aggregate of 4.100 with standard deviation of 0.876, Six sigma as shown by an aggregate of 4.00 with standard deviation of 0.667. Further the respondents indicated that Continuous improvement was very important as indicated by an aggregate of 3.800 with standard deviation of 0.632, total quality management as was indicated by an aggregate of 3.800 by standard deviation of 0.919 and also total productive maintenance was indicated to be very important as was indicated by an aggregate of 3.600 with standard deviation of 0.919.

4.5.3 Impact of operations management practices on the performance of Schneider Electric Kenya

The researcher wanted to know the degree of concurrence on the announcements below about impact of operations management practices on the performance of Schneider Electric Kenya. A scale where 1 was strongly disagree, 2 was disagree, 3 was neutral, 4 was agree and 5 was strongly agree. The findings are as presented in the table 4.13

Table 4.13: Impact of operations management practices on the performance of Schneider Electric Kenya

| Impacts of Operation Management | Mean | Std. Deviation |
|---|-------------|-----------------------|
| TPM has a solid positive effect on a large portion of the KPIs used to gauge producing execution | 3.900 | 0.994 |
| JIT generation framework emphatically influences the association's execution and specifically that of its creation through improved supply chain performance by way of quantities required and when they are required | 4.100 | 0.738 |
| The reception of TQM has been decidedly connected with the change of execution, with operation proficiency and better monetary results | 4.100 | 0.568 |
| Receiving Six Sigma enhances authoritative execution, through the effectiveness with which workers are sent furthermore through enhanced profitability | 4.000 | 0.667 |
| Internal lean management is an important practice for the optimal utilization of production assets. | 3.900 | 0.738 |
| A continuous improvement culture can encourage enhanced operational execution, especially in the zones of value and profitability | 4.200 | 0.632 |

From the study discoveries the study demonstrated that lion's share of the respondents concurred that; a continuous improvement culture can encourage enhanced operational execution, especially in the zones of value and profitability this was indicated in an aggregate of 4.200 with standard deviation of 0.632, also that the adoption of TQM has been decidedly connected with the change of execution, with operation proficiency and with money related results this was indicated by an aggregate of 4.100 with standard deviation of 0.568. Also an aggregate of 4.100 with standard deviation of 0.738 indicated that respondents agreed that JIT creation framework

emphatically influences the association's execution and specifically that of its generation through improved supply chain performance by way of quantities required and when they are required.

Also respondents agreed that receiving Six Sigma enhances hierarchical execution, through the proficiency with which representatives are sent and additionally through enhanced efficiency this was indicated in an aggregate of 4.002 with standard deviation of 0.667. Further this study indicated respondents accepted internal lean management is an important practice for utilization of production assets as was shown by an aggregate of 3.900 with standard deviation of 0.738, also an aggregate of 3.900 and a standard deviation of 0.994 indicated that the respondents agreed that most of the KPIS used to gauge production execution have a solid positive effect on TPM

The study findings agree with those of Matsui (2007) and those of Leachman, (2005), they asserted that the measures of assembling execution incorporate viewpoints like waste lessening, working proficiency, auspicious conveyance, predominant quality, propelled representatives and consumer loyalty.

4.6 Regression

Table 4.14: Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|--------------|----------|-----------------|--------------------------|-----------------------------------|
| | .910 | 0.828 | 0.787 | .223 |

Table 4.14 presents the model summary. Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the above table the value of adjusted R squared was 0.787 an indication that there was variation of 78.7 percent on organization performance due to changes in total productive maintenance, total quality management, internal lean practices, just in time, six sigma and continuous improvement at 95 percent confidence interval. This shows that 78.7 percent changes in performance of Schneider Electric Kenya could be accounted to productive maintenance, total quality management, internal lean practices, just in time, six sigma and continuous improvement is the coefficient that exhibits the relationship of the research elements.

As per the disclosures showed above is exceptional that there is a strong positive relationship between the study figures as showed up by 0.910

Table 4.15: Analysis of Variance

| Model | Sum of Squares | df | Mean Square | F | Sig. |
|------------|----------------|----|-------------|-------|-------------------|
| Regression | 1.894 | 2 | 0.947 | 3.026 | .001 ^b |
| 1 Residual | 242.88 | 97 | 0.313 | | |
| Total | 244.782 | 99 | | | |

Critical value =1.96

Table 4.15 presents analysis of variance. From the ANOVA analysis, the study built up relapse display with criticalness level of 0.1% that means the information was perfect in concluding on the populace parameters as the estimation of importance (p-esteem) was under 5%. The ascertained esteem was more prominent than the basic esteem (3.026 > 1.997) a sign that total productive maintenance, total quality management, internal lean practices, just in time, six sigma and continuous improvement all affects organization performance. criticalness esteem was under 0.05 demonstrating that the model was huge.

Table 4.16: Coefficients Table

| | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|------------------------------|-----------------------------|------------|---------------------------|-------|-------|
| | B | Std. Error | Beta | | |
| (Constant) | 1.543 | 1.033 | | 1.494 | 0.004 |
| Total productive maintenance | 0.371 | 0.118 | 0.293 | 3.144 | 0.003 |
| Total quality management | 0.421 | 0.107 | 0.327 | 3.935 | 0.001 |
| Internal lean practices | 0.406 | 0.126 | 0.316 | 3.222 | 0.002 |
| Just in time | 0.334 | 0.112 | 0.201 | 2.982 | 0.043 |
| Six sigma | 0.386 | 0.104 | 0.234 | 3.711 | 0.002 |
| Continuous improvement | 0.296 | 0.123 | 0.231 | 2.407 | 0.005 |

Table 4.16 above presents the coefficients of determination from which the data established regression equation: $Y = 1.543 + 0.371X_1 + 0.421X_2 + 0.406 X_3 + 0.334 X_4 + 0.386 X_5 + 0.296 X_6$

From the above relapse condition it was uncovered that holding absolute gainful upkeep, add up to quality administration, inner incline rehearses, in the nick of time, six sigma and nonstop change to a consistent zero, the association execution would be at 1.543, a unit increment altogether profitable support would prompt an expansion in association execution by a variables of 0.371, a unit increment in all out quality administration would prompt increment in association execution by elements of 0.421, a unit increment in inside incline practices would prompt an increment an in association execution by an element of 0.406.

A unit increment in the nick of time would prompt an expansion in association execution by variables of 0.334, a unit increment in six sigmas would prompt an expansion in association execution by an element of 0.386 and a unit increment in Continuous change would prompt an expansion in association execution by an element of 0.296. Every one of the factors were huge as their huge esteem was under ($p < 0.05$).

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings, conclusions and recommendations for practice and further research on the problem. The objectives of this study were to identify the operations management practices used by Schneider Electric, Kenya and also the study had to establish relationship among the operations management practices used in Schneider Electric, Kenya and the operational performance

5.2 Summary of the Key Findings

5.2.1 Operations Management Practices

The study revealed that regarding the total productive maintenance; the organization has standardized maintenance checklists, there is regular inspection of machines and facilities and the operators are responsible for their own machine cleaning, lubrication, and regular maintenance. Additionally, the study revealed that; the organization keeps detailed TPM and work order records; also there are scheduled regular maintenances and inspections. Further the study revealed that there is a documented maintenance program for shop equipment and also that TPM is done when there is less work or when equipment breaks down.

Regarding the total quality management, the study revealed that; the organization has a documented quality management system in place and also that the magnitude and frequency of quality related occurrences has reduced significantly over the past one year and that measurable quality control methods are comprehended and utilized. Further the study indicated that all workers are urged to check the nature of every operation they finish before continuing to the following operation. Also that the organization welcomes and acts on end user complaints as was indicated. Further the study unveiled that quality levels are determined by end user bench marks and the regulatory authorities.

On the internal lean practices, the study revealed that; there are efforts in place to improve equipment performance, there has been a relentless pursuit to optimize production process and also that the organization is keen on removing and / or improving inefficient activities. Further the study revealed that the organization emphasized improved labor profitability and working

effectiveness as method for lessening cost, instead of sourcing minimal effort materials and decreasing overhead expenses.

Regarding the just in time method, the study revealed that; there are on time deliveries from suppliers and also that the organization adhere to consistence with the day by day generation as arranged. Further the respondents agreed that there is reduction of stocks in stores and also that there is stability of the master production schedule and also that the organization is keen on improving on-time delivery.

Regarding the six sigma the study revealed that; there is overall improvement in reliability and reduction of costs. Further the study found out that the organization has flexibility in adapting to different production capacity and can gather important data and to successfully interface with creation forms. Additionally, the study revealed that the company analyses and actively responds to customers' needs and systematically makes use of adhoc practices. Also the study revealed that there is diminishing times for new item's advancement and commercialization.

On continuous improvement the study unveiled that; the organization practices ideas of zero misfortunes in each circle of action also that the organization has a persevering interest to accomplish cost lessening focuses in all assets. Further the study revealed that there is focus on re-designing and re-examining work flow. Additionally, the study revealed that there is continuous improvement on handling of beneficiaries/end users and also that there is continuous improvement on handling of all activities within the organization.

5.2.2 Application and Impact of Operations Management Practices in Schneider Electric Kenya.

The study revealed that the following OMP's were applied by Schneider Electric Kenya, they included; Internal Lean management, six sigmas, Continuous improvement, Total quality management, Total productive maintenance and Just-in-time. Further the study indicated that all this management practices were considered very important to the company.

Further the study revealed that; a continuous improvement culture can encourage enhanced operational execution, especially in the territories of value and profitability and also that the adoption of TQM has been decidedly connected with change of executing generally, with utmost operation proficiency and with better budgetary results. Additionally, the study revealed that JIT creation framework decidedly influences the association's execution and specifically that of its generation through improved supply chain performance by way of quantities required and when they are required.

In addition, the study revealed that embracing Six Sigma enhances authoritative execution, through the proficiency with which representatives are sent and also through improved productivity. Further the study revealed that internal lean management is an important practice for the utilization of production assets and also that majority of the KPIs used to gauge producing execution have a solid positive effect on TPM.

5.3 Conclusion

On the operations management practices used by Schneider Electric Kenya, The study concludes that total productive maintenance, total quality management, international lean practices, just in time, six sigma and continuous improvements are operations management practices that aids in diminishing times for new item's improvement and commercialization and also ensures flexibility of organization in adapting to different production capacity thereby in overall improvement in reliability and reduction of costs.

With respect to the relationship between the operations management practices used in Schneider Electric, Kenya and the operational performance. The study concludes that JIT creation framework emphatically influences the association's execution and specifically that of its generation through improved supply chain performance by way of quantities required and when they are required and that most of the KPIs used to gauge producing execution have a solid positive effect on TPM.

5.4 Recommendations

Regarding the operations management practices used by Schneider Electric Kenya, the study revealed that workers are urged to check the nature of every operation they finish before continuing to the following operation. Thus the study recommends that the management of the company should set clear policies regarding work comparison, also the management should come with strong internal controls that support the selected operations management practices.

With respect to the relationship between the operations management practices used in Schneider Electric, Kenya and the performance of operation. The study revealed that Internal lean management is an important practice for the utilization of production assets and also that Receiving Six Sigma enhances authoritative execution, through the proficiency with which workers are conveyed furthermore through enhanced efficiency. Thus the study recommends that the management of the company should adopt the operations management practices for effectiveness and efficiency.

5.5 Limitations of the study and areas for further research

This study was limited to identify the operations management practices used by Schneider Electric, Kenya and also to establish the relationship between the operations management practices used in Schneider Electric, Kenya and the operational performance.

The study recommends that a similar study should be carried out to identify the adoption and utilization of operations management practices by any other multinational electronic company or its subsidiary in Kenya.

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APPENDICES

Appendix I: Questionnaire

The questionnaire is divided into three parts as follows: general information, operations management practices, and application and impact of operations management practices in Schneider Electric, Kenya. Please answer the questions as guided by the instructions in each part.

PART A: GENERAL INFORMATION

Kindly answer the following questions by ticking in the appropriate box or filling the spaces provided.

1. Department of the respondent: Operations Production Quality
Maintenance Marketing Human Resource Other (Specify).....
2. What is your highest level of Academic Qualification? Doctoral Degree
 Masters Bachelors Higher Diploma Diploma Certificate
Other (specify).....
3. Number of years you have worked with the organization.....
4. Does operations department play an important role in the organization? Yes No

PART B: OPERATIONS MANAGEMENT PRACTICES

4. Indicate on a scale of 1 – 5 to what extent you agree with the following about your organization.

1 = Strongly Agree 2 = Agree 3 = Neither Agree nor Disagree

4=Disagree 5 = Strongly Disagree

| Description | Rating | | | | |
|--|--------|---|---|---|---|
| | 1 | 2 | 3 | 4 | 5 |
| 1. Total Productive Maintenance | | | | | |
| There is a documented maintenance program for shop equipment | | | | | |
| TPM is done when there is less work or when equipment breaks down | | | | | |
| There is regular inspection of machines and facilities and the operators are | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| responsible for their own machine cleaning, lubrication, and regular maintenance. | | | | | |
| The organization keeps detailed TPM and work order records | | | | | |
| The organization has standardized maintenance checklists | | | | | |
| There are scheduled regular maintenances and inspections | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| 2. Total Quality Management | | | | | |
| The organization has a documented quality management system in place | | | | | |
| The magnitude and frequency of quality related occurrences has reduced significantly over the past one year | | | | | |
| The organization welcomes and acts on end user complaints | | | | | |
| Quality levels are determined by end user bench marks and the regulatory authorities. | | | | | |
| Statistical quality control techniques are understood and used. | | | | | |
| All employees are encouraged to check the quality of each operation they complete before proceeding to the next operation. | | | | | |

| Description | 1 | 2 | 3 | 4 | 5 |
|---|----------|----------|----------|----------|----------|
| 3. Internal lean practices | | | | | |
| There has been a relentless pursuit to optimize production process | | | | | |
| Is the organization keen on removing and / or improving inefficient activities? | | | | | |
| Is the organization emphasizing improved labour productivity and operating efficiency as means of reducing cost, as opposed to sourcing low cost materials and reducing overhead costs? | | | | | |
| Are there efforts in place to improve equipment performance? | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| 4. Just-in-time | | | | | |
| Is the organization keen on improving on-time delivery? | | | | | |
| Is there reduction of stocks in stores? | | | | | |
| There is constant burden and disorganization, with a high level of Work-in- | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| Progress items | | | | | |
| Does the organization adhere to compliance with the daily production as planned? | | | | | |
| Are there on time deliveries from suppliers? | | | | | |
| There is stability of the master production schedule | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| 5. Six sigma | | | | | |
| There is reducing times for new product's development and commercialization | | | | | |
| The organization has flexibility in adapting to different production capacity | | | | | |
| There is overall improvement in reliability and reduction of costs | | | | | |
| The company analyses and actively responds to customers' needs and systematically makes use of adhoc practices | | | | | |
| The organization is able to collect valuable information and to effectively interface with production processes | | | | | |

| | | | | | |
|---|--|--|--|--|--|
| 6. Continuous improvement | | | | | |
| The organization has a relentless pursuit to achieve cost reduction targets in all resources. | | | | | |
| The organization seeks to improve plant equipment effectiveness through technology where it's cost-effective. | | | | | |
| The organization practices concepts of zero losses in every sphere of activity. | | | | | |
| There is continuous improvement on handling of beneficiaries/end users. | | | | | |
| There is continuous improvement on handling of all activities within the organization. | | | | | |
| There is focus on re-designing and re-examining work flow. | | | | | |

PART C: APPLICATION AND IMPACT OF OPERATIONS MANAGEMENT PRACTICES IN SCHNEIDER ELECTRIC KENYA.

5. The extent of application of OMP's by Schneider Electric Kenya.

Please indicate by ticking (√) the extent to which the following operations management practices are applied in your organization as per the following scale of 1 – 5

1 – Strongly Agree 2 – Agree 3 – Neutral 4 – Disagree 5 – Strongly Disagree

| Description | 1 | 2 | 3 | 4 | 5 |
|------------------------------|----------|----------|----------|----------|----------|
| Internal Lean management | | | | | |
| Six sigma | | | | | |
| Continuous improvement | | | | | |
| Total quality management | | | | | |
| Total productive maintenance | | | | | |
| Just-in-time | | | | | |

6. The importance of OMP's in Schneider Electric Kenya.

Please indicate by ticking (√) the extent to which the following operations management practices are important in your organization as per the following scale of 1 – 5

1 - Not at all important 2 – Some importance 3 – Desirable 4 – Very important

5 – Top priority

| Description | 1 | 2 | 3 | 4 | 5 |
|------------------------------|----------|----------|----------|----------|----------|
| Internal Lean management | | | | | |
| Six sigma | | | | | |
| Continuous improvement | | | | | |
| Total quality management | | | | | |
| Total productive maintenance | | | | | |
| Just-in-time | | | | | |

7. Impact of operations management practices on the performance of Schneider Electric Kenya.

Please indicate by ticking (√) on the appropriate statement as per the scale below:

1 – Strongly Agree 2 – Agree 3 – Neutral 4 – Disagree 5 – Strongly Disagree

| Description | 1 | 2 | 3 | 4 | 5 |
|---|----------|----------|----------|----------|----------|
| TPM has a strong positive impact on most of the KPIs used to measure manufacturing performance | | | | | |
| JIT production system positively affects the firm's performance and in particular that of its production through improved supply chain performance by way of quantities required and when they are required | | | | | |
| The adoption of TQM has been positively associated with the improvement of general performance, with a higher operation efficiency and with better financial results | | | | | |
| Adopting Six Sigma improves organizational performance, through the efficiency with which employees are deployed and also through improved productivity | | | | | |
| Internal lean management is a powerful practice for the optimal utilization of production assets and human capital. | | | | | |
| A continuous improvement culture can facilitate improved operational performance, particularly in the areas of quality and productivity | | | | | |

Appendix II: Multinational Manufacturing Firms in Kenya

| No | Company | Industry | Headquarters |
|----|-----------------------|--|----------------|
| 1 | Toyota | Automotive | Japan |
| 2 | Volkswagen Group | Automotive | South Korea |
| 3 | Samsung Electronics | Electronics | South Korea |
| 4 | General Electric | Engineering, various | USA |
| 5 | General Motors | Automotive | USA |
| 6 | Ford | Automotive | USA |
| 7 | Hewlett-Packard | Electronics | USA |
| 8 | Nissan | Automotive | Japan |
| 9 | Siemens | Engineering, various | Germany |
| 10 | IBM | Electronics | USA |
| 11 | BASF | Chemicals | Germany |
| 12 | Honda | Automotive | Japan |
| 13 | Panasonic | Engineering, various | Japan |
| 14 | Nestle | Food & Beverages | Switzerland |
| 15 | Peugeot | Automotive | France |
| 16 | Procter & Gamble | Consumer goods | USA |
| 17 | Sony | Electronics | Japan |
| 18 | Toshiba | Engineering, various | Japan |
| 19 | Bosch | Engineering, various | Germany |
| 20 | Mitsubishi | Engineering, various | Japan |
| 21 | Hyundai Motor Company | Automotive | Japan |
| 22 | PepsiCo | Food & Beverages | USA |
| 23 | Johnson & Johnson | Personal care products | USA |
| 24 | Unilever | Consumer goods | Netherlands |
| 25 | Caterpillar | Construction equipment | USA |
| 26 | FAW Group | Automotive | China |
| 27 | Bayer | Pharmaceuticals | Germany |
| 28 | LG Electronics | Electronics | South Korea |
| 29 | Coca-Cola | Food & Beverages | USA |
| 30 | GlaxoSmithKline | Pharmaceuticals | United Kingdom |
| 31 | Johnson Controls | Engineering, various | USA |
| 32 | Kia Motors | Automotive | South Korea |
| 33 | ABB | Engineering, various | Switzerland |
| 34 | Ericsson | Telecommunications equipment, Electronics | Sweden |
| 35 | Tata Motors | Automotive | India |
| 36 | Huawei | Telecoms equipment, Electronics | China |
| 37 | Schneider Electric | Engineering, various | France |

| | | | |
|----|--------------------------|----------------------|----------------|
| 38 | 3M | Engineering, various | USA |
| 39 | L'Oréal | Cosmetics | France |
| 40 | British American Tobacco | Tobacco | United Kingdom |
| 41 | Biersdoff | Personal Care | Germany |
| 42 | Bata Shoe Company | Shoes | Switzerland |
| 43 | Weetabix East Africa | Consumer Goods | United Kingdom |

Source: Kenya Investment Authority (2013)