

**OPERATIONS IMPROVEMENT APPROACHES AND CUSTOMER
SATISFACTION AMONG PRIVATE SECURITY FIRMS IN
NAIROBI COUNTY**

BY

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**A Research Project Report Submitted in Partial Fulfillment of the
Requirements for the Award of Master of Business Administration,
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DECLARATION

This research project is my original work and has not been presented for award of any degree in any other university.

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DEDICATION

This research is dedicated to my late dad and mum for instilling in me the importance of prayer, hard work and discipline and to my lovely siblings who encourage me to always follow my dreams.

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LIST OF ABBREVIATIONS

DMAIC	Define, Measure, Analyze, Improve and Control
ISO	International Organization for Standardization
JIT	Just In Time
JUSE	Union of Japanese Scientists and Engineers
KSIA	Kenya Security Industry Association
PSCs	Private Security Companies
PSIA	Protective Services Industry Association
QI	Quality Improvement
TQM	Total Quality Management

ABSTRACT

This study sought to determine operations improvement practices in private security firms in Nairobi County and to establish the relationship between these approaches and customer satisfaction. Primary data was collected using two sets of semi structured questionnaires, designed to be completed both by the customers and the managers of these firms, with a preference of the operations managers since they are the people incharge of transforming business resources into profitable and sustainable services. Descriptive statistics of mean and standard deviation were used to analyze the first objective while regression analysis was used to show the relationship between the adopted operations improvement approaches and customer satisfaction. Regression statistics were interpreted to determine the strength of the relation. The study reveals that indeed private security firms in Nairobi County indeed have adopted operations improvement approaches. Respondents of the study were able to outline operations improvement methods adopted by their firms while the customers of these firms indicated the extent they were satisfied with services offered by these firms. The study also reveals that there is a correlation between the adopted operations improvement approaches and customer satisfaction in these firms. This research paper concludes that adopting operations improvement approaches such as TQM, lean management, Kaizen, automation and six sigma indeed have an influence on the levels of customer satisfaction. The study suggests that further studies should be undertaken to determine the nexus between private security firms' financial performance and their adopted operations improvement approaches. The study recommends similar studies to be undertaken in other service industries to provide more evidence on the relationship between the operations improvement approaches and customer satisfaction levels.

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

All industries whether in manufacturing or services are concerned with improving their operations, this is due to increased regulations, competition and globalization. Operations refer to the way that members of an organization transform inputs-labour, money, supplies, equipment, and so on-into outputs-goods or services. Kumar and Suresh (2006) define operations as that part of an organization, which is concerned with the transformation of a range of inputs into the required output (services) having the requisite quality level. The practice of operations is complex. It takes in all the nitty-gritty day-to-day activities by which members of an organization strive to reach their goals (Sree, 2009).

The importance of operations improvement approaches in the industry in Kenya has continued to grow with increase in the number of private security firms. Improving operations therefore goes a long way in making customers satisfied and hence firms are able to thrive. Operating systems must therefore provide products and services that meet the specifications of the customer in terms of timings, cost and quality. Customer's perceptions are real, regardless of our internal feelings. Even if we make improvements, our customer's perceptions are not likely to change unless we tell them about improvements (Arora, 2008).

1.1.1 Operations Improvement

Operations improvement refers to improved levels of performance of the next generation of operational transformations. It is often looked as a one of the major means of increasing productivity as well as profitability of a firm. Most commonly used tools in operations improvement include lean management, six sigma, quality improvement, benchmarking, balance score card, increased automation, the 5S, Kaizen, goal setting, productivity incentives, employee participation, product design, cost reduction, Just in Time (JIT) among others. These approaches are important to organizations as well as their managers for at least two reasons. First they improve productivity which in turn

improves organizations financial health. Second they help organizations meet customer's competitive priorities. Organizations fail, or perform poorly, for a variety of reasons, being aware of those reasons can help managers avoid making similar mistakes. Among the chief reasons is neglecting the operations strategy (Stevenson and Hojati, 2007). Investing in these approaches results in reasonable financial returns in any organization.

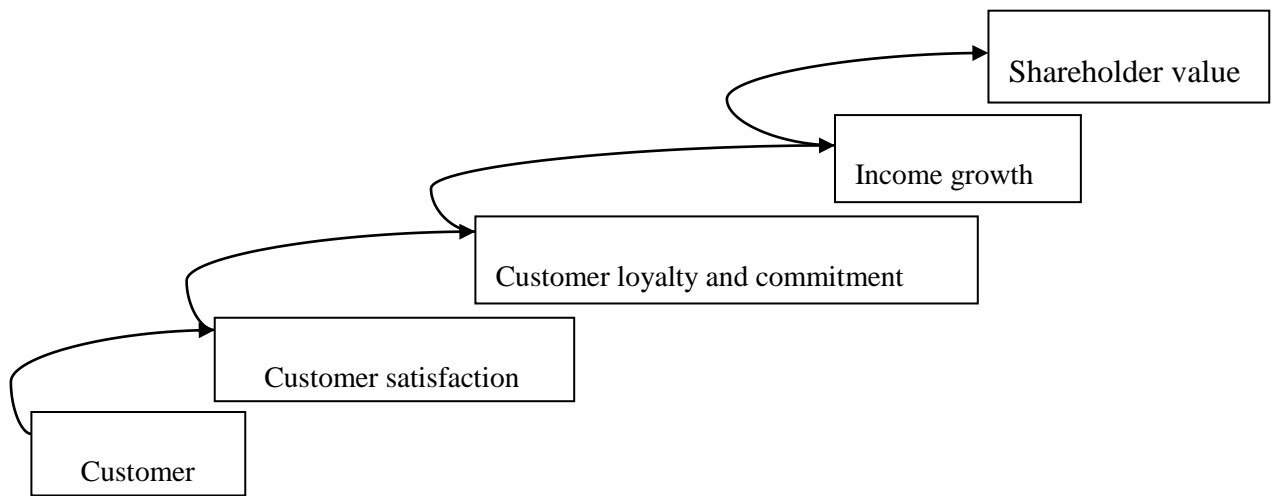
Organizations can use a combination of methods to improve their operations, Benson (2010) suggests that these approaches need not to be used in isolation, however if an organization is initiating its first operations improvement program the organization should consider one single method to avoid being over extended. He argues that Selecting the "best" method requires first defining the specific goals for improvement: Definition of long term goals, type of the problem to be addressed i.e. (cultural change, capacity increase, patient satisfaction improvement, cost reduction e.t.c.), experience in such operations improvement internally or from related organizations, Size of the institution, Budget and time available, IT services and data availability.

1.1.2 Customer Satisfaction

Kotler (1994) defines customer satisfaction as the level of one's feelings after comparing the performance or results that he or she felt compared with the expectations. Customer satisfaction isn't a new concept just the opposite- it is at least 200 years old. He points out that as long as the 18th century, Adam Smith clarified the fundamental premise on which free markets operate. He also maintains that since human beings continually strive to maximize their utility (get the greatest benefit for the least cost) they migrate gradually but inexorably to the suppliers that come closest to delivering it. Stiff competition, increased regulations and high customer expectations are some of the major challenges facing businesses today. In response businesses are enhancing their services, and searching for new customer segments. To overcome these challenges business organizations are focusing on improving their operations using approaches that will bring in new business, increase customer satisfaction, retain existing customers, improve overall business productivity as well as maintain a competitive edge in the market.

Customer satisfaction can be achieved only when the company defines customer needs from the customer point of view, and not from its own point of view. For this, the customer must be the centre of all activities carried out in the organization. Customer satisfaction scores are leading indicators of organizational prosperity, often picking up problems before financial indicators can. Arora (2008) describes customer satisfaction as a mix of first; hardware-technology, product, process, quality and software-attitude, responsiveness, deliverance, communication and secondly; Facts and perception-industry, product, cost, company and personal parameters.

Figure 1.1: Customer satisfaction and shareholder value



Source: Author (2014)

1.1.3 Private Security Firms in Kenya

Private Security firms are private corporations whose major objective in business is to make profit. Their business opportunities depend on clients' feelings of insecurity, and do not necessarily contribute to peace building and general welfare of a locality or a nation. According to Mkutu and Sabala (2007) private Security firms are defined by their provision of essentially defensive, unarmed services to businesses, property owners, offices and embassies. An emerging debate surrounds their new importance, though they remain distinct from private military firms which include personnel trained in military

methods and equipment. In Kenya, the government has given some of the security provision rights to private security industry.

Tabo (2013) argue that private security firms vary in size, with the majority being small to medium sized, and owner managed companies with less than 100 employees. The majority of this small organization operates in one locality or town. The major companies operate countrywide. However the highest concentration of companies is in Nairobi County. Currently there are two bodies governing private security firms in Kenya; (1) Kenya Security Industry Association (KSIA) and (2) Protective Services Industry Associations (PSIA). KSIA is a federation of private companies whose core business is the supply of security products and services. The association has drawn on the laws of Kenya, internationally accepted technical and systems specifications, and the professional experience of all member companies, to establish a set of benchmarks (Kimosop, 2007). KSIA ensures that all private security firms registered under their umbrella adhere to government rules and regulations such as the gazette minimum wage, no of hours a security officer should work in a day as well as the employees' general welfare.

The main aims of KSIA is establishing and maintaining quality standards and good practices in the industry, providing a central forum to discuss common issues and represent the industry interests, providing a central organization for liaison with government, police, emergency services and other organizations, co-ordinating resources for commercial, professional and public education on security issues, technology and practice, and administrating the KSIA Charter as an effective "customer assurance" programme (Kimosop,2007).

Mkutu and Sabala (2007) argue that private security firms make an important contribution to state security by protecting businesses, individuals, institutions, embassies, and foreign missions, thus enabling prosperity of the nation at large. The challenges facing private security firms in Kenya revolve around the organizational resource and organizational processes. The security firms managers place little or no emphasis on implementation phase while they are drafting organizational strategies. However most of the challenges are avoidable if they have been accounted for during the

analysis and formulation stages (Tabo, 2013).Kaguru and Kepha (2014) suggests that some of the challenges facing security firms in Kenya are regulatory issues, poor coordination between the police and these firms, political situations and strategic challenges of the country.

The past two decades has seen a number of new products introduced by these firms such as escorts services, secure transfer, and cash in transit, mobile response services, road rescue, vehicle trackers, personal trackers, events management and commercial trainings. To supplement their revenues the firms do provide fire response and ambulance services. They also represent a significant percentage of employment in Kenya, particularly for individuals not qualified for state security work or other white collar jobs. Their operations have grown regionally with some companies opening up subsidiaries in throughout East and Central Africa.

1.2 Statement of the Problem

The importance of operations improvement in the service industry has continued to grow with the increase of services globally. Customer satisfaction is one major meaningful measure of productivity in services. Underlying challenges such as increased regulations, competition and globalization makes operations improvement approaches to be the top most agenda in many organizations. People rely more and more on a diverse range of services to make their lives easier. As the reliance on services has increased, the competition between service firms has escalated. As a result, services must maintain efficient operations in order to achieve positive customer satisfaction and retain their customers (Reinwald, 2013).

Private security industry in Kenya faces a couple of challenges in their desire to retain their existing business as well as in capturing new markets. To achieve these objectives operations improvement strategies must be put in place. Adopting improvement approaches such as TQM, lean management, kaizen, increased automation and six sigma will enable the firms makes some considerable transformations in their service delivery that in turn will improve their performance.

Though the reason for the failure of many organizations has been attributed to many factors such as poor leadership, political instability, cultural challenges, economic factors, technological challenges, lack of strategy e.t.c., neglecting the operations strategy and failing to consider what customers want are viewed to be some of the chief reasons why many organizations collapse.

Various studies that have been conducted on Private security firms in Kenya. Kaguru and Kepha (2014) conducted a research on factors affecting Private security firms in Nairobi County: A Case of study of G4s Security Services (K) Ltd. The finding of the study revealed that the private security industry lacks a regulatory framework and Kenya should develop a Private Security Companies (PSC) regulatory framework since the lack of it affects the performance of PSCs to a great extent. This study concentrated on regulatory framework issues at the expense of operational issues. The study concludes that a comprehensive regulatory framework or system at the national level is essential for both achieving public oversight and control over the private security sector

Recent studies on operations improvement include Kisombe (2012) lean manufacturing tools and techniques in industrial operations: A survey of the sugar industry in Kenya and he found out that there was lack of a general understanding of lean manufacturing practices in the industry. Manmeet (2014) Kaizen costing catalyst for change and continuous cost improvement, Kibwage (2012) business process improvement practices by savings and credit societies with front office service activity in Nairobi County.

Other recent studies in Kenya on private security industry are by; Tabo (2013) challenges of strategy implementation in private security companies in Kenya, Kihoro et al (2014) Effects of Competitive Strategies on Customer retention in G4s Security Services (K) Ltd, Kimosop (2007) Labour Turnover in Private Security Firms in Kenya: A Case of Future Force Security Firm and Mulongo (2013) Change management practices and role leadership in managing change at G4s (K) ltd. All the above studies have dwelt on strategic and human resources management issues in private security firms in Kenya. They have hardly touched on operational issues in these firms. Balancing a firm's operations and customer satisfaction becomes a delicate balancing game that can

determine a firm's success or failure (Reinwald2013). Minimal research has been conducted to date on operations improvement approaches adopted by private security firms in Kenya, as a result, the effect of these improvement approaches on customer satisfaction is not known. This research intends to bridge that gap, through finding out the operations improvement approaches adopted by private security firms in Kenya.

The research questions were; what are the operations improvement approaches adopted by private security firms in Kenya? Do operations improvement practices by private security firms in Kenya affect customer satisfaction? And what measures could be adopted to overcome the challenges in customer satisfaction?

1.3 Research Objectives

The objectives of this study were;

- i. To establish the operations improvement approaches employed by Private Security firms in Kenya.
- ii. To determine the relationship between operations improvement approaches and customer satisfaction among Private Security firms in Nairobi County.

1.4 Value of the Study

The study may be useful to operations management policy makers in establishing the best improvement approaches to implement to increase customer base, customer loyalty, revenue, profits, market share and survival in their businesses. Many are the times businesses fail due to neglect of operational issues and strategies. More light will be shed on the link between customer satisfaction and improvement approaches carried out by the private security industry. Theoretically the study will contribute to the existing body of knowledge by providing scholars, educators and researchers with referencing material for further research in this area of operations improvement.

In practice this study also aimed in developing an understanding of the impact of operational improvement approaches on customer satisfaction among private security

firms in Nairobi County. The study aimed at enriching the managers because they are the people who plan, organize, control and direct day to day activities and see to it that the vision and mission of these firms are accomplished. The nexus between operations improvement approaches employed and customer satisfaction will advise on the best approaches that can be adopted to enhance customer loyalty, market share and consequently high profitability.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section provides background on topics relevant to operations improvement approaches and customer satisfaction. The literature review captures mainly the impact of operations improvement approaches on customer satisfaction, the relationship between customer satisfaction and revenue growth, company profitability, increased productivity, increased competitiveness and increased company future market value. It also displays the importance of operations improvement approaches in organizations. The chapter will also include concepts and theories of operations improvement and customer satisfaction.

2.2 Operations Improvement

As the service businesses grow continually every day there is need to improve operations to support their profitability. Due to increased competition, globalization, increased regulations and new technology there is critical importance to continually improve business operations. Businesses face mounting pressure to improve their supply chain and this call for the need to improve their operations.

During the last decade many organizations adopted practices such as lean operation and total quality management (TQM). As a result they were able to achieve improved quality while wringing much of the excess costs out of their systems (Stevenson et al, 2007). As the expectations of customers grow day by day it is important for a business to continually improve the quality of the products and services it has to offer (Gachuhi, 2012). While alignment of operations is key to competitiveness continuous improvement plays a complimentary role in the quest for competitiveness. Kibwage (2012) argues that competitiveness of a company is mostly dependent on its ability to perform well in dimensions such as cost, quality, delivery dependability, speed, innovation and flexibility to adapt its self to variations in demand.

2.3 Operations Improvement Approaches

Operations management concepts are inherited from management practice and engineering industry. Leseure (2010) points out that at practical level a number of

operations management concepts are about innovation and change e.g. (innovation management, process management and Kaizen), he presents the theories in operations management as; the theory of operations management, system theory, contact theory (Customers), coordination theory, the theory of performance frontiers (trade-offs), the theory of swift, even flow (Just in Time inventory), the theory of constraints (throughput). All these theories articulate the on the foundations of practices in the operations management discipline but touch very little on improvement approaches that can be induced to these practices to make them work better.

Operations improvement refers to Process analysis and improvement approaches which include cost and time reduction, productivity improvement, process yield improvement, quality improvement and increasing customer satisfaction (Stevenson et al, 2007). Some of the theories that touch on operations improvement are Lean management, six sigma and Kaizen. Stevenson et al (2007) also argues about Frederick Winslow Taylor to be the first person to come up with operations improvement strategies. Taylor is often referred to as the father of scientific management. Taylor believed in a “science of management” based on observation, measurement, analysis, improvement of work methods and economic incentives. He studied work methods in great detail to identify the best method for doing each job.

Six sigma is the newest approach of operations improvement. The term was derived by physicist Shewhart’s in an observation in the 1920’s when he discovered that three sigma from the mean is the point where a process in operations requires correction. Gachuhi (2012) defines six sigma as a term used to denote perfection and is usually defined for practical purposes as achieving a rate of 3.4 defects per million opportunities

2.3.1 Total Quality Management

Total Quality Management (TQM) origin can be traced to 1949 when the union of Japanese scientists and engineers (JUSE) formed a committee of scholars, engineers and government officials devoted to improving Japanese productivity and enhancing their postwar quality of life (Powell, 1995).Some businesses use the term total quality management (TQM) to describe their quality efforts. A quality focus emphasizes

customer satisfaction and often involves teamwork. Process improvement can result in improved quality, cost reduction, and time reduction (Stevenson et al, 2007). TQM has been used together with other operations improvement tools to bring significant positive changes in business organizations in today's world for example Just in Time (JIT), Kanban, Production smoothing, Total Productive Maintenance and Total Quality Management (TQM) have been implemented in more than one process industry and resulted in huge benefits (Ondiek and Kisombe,2013).

Adopting TQM ensures that the management organization has a strategic overview of quality and focuses on prevention not detection of problems (Mandru, Patrascu, Carstea, Popescu and Birsan, 2011). Magutu, Nyamwange, Kinyua and Richu (2012) describe the relationship between quality management and operational productivity as;

$OP = f(Q, M, T, K, HR, E/S)$ Where OP = Operational Productivity,

Q = Quality,

M = Management

T = Technology

K = Capital

HR = Human Resource

E/S = Ergonomics/Safety

They conducted a study that sought to establish the factors affecting the operational productivity of the small and medium sized manufacturing firms in Kenya, their study concluded that quality, technology, management and human resource issues were the main factors influencing operational productivity amongst the surveyed small and medium sized manufacturing firms. The basic idea of TQM is that quality is essential in all functions of the business not just manufacturing, it is a system approach that considers every interaction between the various elements of the organization (Mandru, et al).

2.3.2 Lean Management

Lean is a production practice that aims to minimize waste along entire value streams and create more value for customers. According to lean principles, any use of resources that does not deliver consumer value is a target for change or elimination. This management philosophy has mainly been applied in manufacturing, notably in Toyota and the Toyota Production System, from where Lean originates (Arfmann and Federico 2014). Toyota and other Japanese companies developed lean thinking as an alternative paradigm. Lean is an integrated system of principles, practices, tools, and techniques focused on reducing waste, synchronizing work flows, and managing variability in production flows. An important distinction in Lean is between value- and non-value-added activities. Value added activities contribute to what the customer wants from a product or service (Koning, Verver, Heuvel, Bisgaard and Does, 2006). Most of the times there is reluctance to adapt to changes initiated by lean management system.

The perspective of lean thinking as an integrated overall management approach is vague at the managerial level. Traditionally, lean implementation has been accomplished through an analysis of the shortcomings of an existing process, implementation of a revised process, and subsequent Plan-Do-Check-Assess (PDCA) cycles. PDCA cycles are usually performed after lean implementation to further improve the future state value stream (Miller, Pawloski & Standridge, 2010).

There are many tools and techniques which help manufacturing organizations to implement lean manufacturing practices. They are interrelated in their ability to reduce costs through enhanced efficiency which contributes to their influence on operational performance (Kisombe, 2012). Lean thinking uses a range of tools to identify core processes and to develop them so that the systems flow efficiently. These tools include; 5 S or CANDO (A series of 5 steps to enable workforce teams to look at the environment they work in and to start to identify the blocks in the current process e.g. lack of supplies, defective equipments).

2.3.3 Kaizen

Kaizen means a constant effort not only to maintain but also to upgrade standards. Kaizen pronounces perpetual development in all walks of our life. This is an inborn instinct present in every human being. Japanese are very diligent by nature though they sometimes are not even cognizant of kaizen concept. The rate of kaizen development is very slow but it gradually brings about a great development during the course of time, which is very much helpful for the companies to sustain (Abhijit, Madhuri, Saikat&Gourab, 2013).

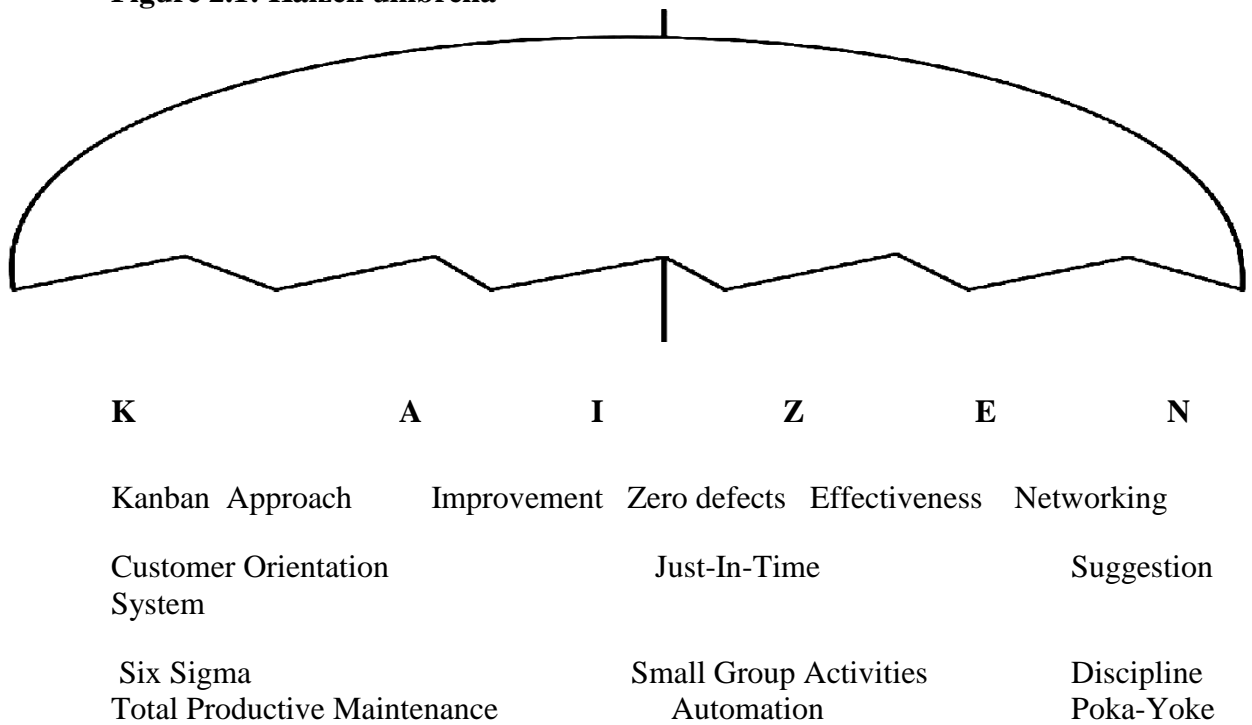
Kaizen means continuous improvement in personal life, home life, social life, and working life as a whole. As related to the work place kaizen means continuous improvement involving managers and workers, customers and suppliers alike (Vinnert, 2011). Kaizen requires the development of firm specific human capital at the point of entry through the on job training, job rotation and cross functional training (Gachuhi, 2012).

Good kaizen idea should have positive influence on areas outside the maternal department of an employee, affect the level of ordinary duty of employee, be characterized by the high level of practicality. It means that an employee has devoted a lot personal time and energy to achieve effective implementation and obtain the results exceeding desired ones (Karkoszka et al, 2009).

Kaizen can be used for costing purposes. Manmeet(2014) describes kaizen costing as the part of new business concept, his method is based on the philosophy of 'Kaizen' a new way of thinking. He says that Kaizen costing focuses on continuous improvement in all processes, customers' satisfaction and on involvement of all employees of company and that kaizen costing works on the establishment of a cost reduction target amount through continuous improvement or kaizen activities in operations.

Kaizen forms an umbrella that covers many techniques including Kanban, total productive maintenance, six sigma, automation, just-in-time, suggestion system and productivity improvement, etc(Singh & Singh, 2009).

Figure 2.1: Kaizen umbrella



Source: (Singh et al, 2009)

Magutu et al (2012) argue that continuous improvement can be attained by using a lean system approach. Kaizen theory is all about employing small continuous steps to improve business organizations while Lean-production theory is a multi-dimensional approach which requires a variety of management systems. These are; just-in time, work teams, supplier management and system management (Andollo2011).

2.3.4 Automation

Automation is any system or technology that effectively removes decision processes from the user/customer. Conventional methods for determining the type and level of customer service required by a consumer were dependent upon on personal interaction with the customer and their ability to locate and purchase the needed services after a loss. The principal problem with such conventional methods is the time required identifying the need, servicing the need and the extent to which the customer can effectively purchase the needed services in a timely manner, (Lockwood, Kerven, Oman, Purvines, Small, Smith &Wrather, 2004).In instances of distress calls such as thefts, accidents, breakdown,

potential breakdown, mechanical or other potential distress situations, typical customer services responses may only be initiated by the customer after the distress event. Therefore there is need for systems of onboard sensor systems to detect an emergency situation and to notify appropriate medical and law enforcement authorities automatically. Such systems will improve the response time in an emergency and help customer recover from such situations.

Information technology has been applied as part of automation in business organizations to achieve efficient processes that will in turn deliver maximum shareholders value. Cegarra-Navarro, Wensley and Sanchez-Polo (2011) conducted a study that sought to test the relationship between health information technology and quality of service. The main contribution of their research is to question existing models that relate to health information technologies and organizational learning from the patient's perspective. Their results suggest that to foster utilization of health information technologies, hospitals in the home units need to provide and support explorative and exploitive processes with patients and other external agents. The existence of these processes is directly linked to improved quality of care and successful implementation of appropriate health information technologies.

2.3.5 Six Sigma

Six sigma was originally a concept for company-wide quality improvement introduced by Motorola in 1987. It was further developed by General Electric in the late 1990s. Lindermann, Schroeder, Zaheer and Choo (2003) defines six sigma principles as statistics-based methodology that relies on the scientific method to make significant reductions in customer-defined defect rates in an effort to eliminate defects from every product, process, and transaction. The Program is characterized by its customer-driven approach, emphasis on decision making based on careful analysis of quantitative data and a priority on cost reduction Koning et al (2006). It is a business performance improvement strategy that aims to reduce the number of mistakes/defects to as low as 3.4 occasions per million opportunities. Sigma is a measure of "variation about the average" in a process which could be in manufacturing or service industry (Desai & Shrivastava, 2008).

A performance measurement system should be developed prior to the six sigma principle deployment. The key activities of the performance measurement system are: (1) setting up a companywide quality control strategy and policies; and (2) arranging performance indicators based on that strategy. In order to set up performance indicators, it is necessary to identify activities and key factors that are critical to the success of the project at each construction phase (Fine, Hansen & Roggenhofer, 2008). A crucial differentiator of Six Sigma from other quality improvement methods is intensive technical training and coaching by experienced so called 'Master Black belts'. Six Sigma offers a structured approach to get to the root cause of the problem using the DMAIC methodology (Define, Measure, Analyze, Improve and Control) and Statistical Process Control (SPC) a key tool used in Six Sigma (Gachuhi, 2012).

In addition to the five methods there are other operations improvement approaches that private security companies can use to serve as an alternative to these ones. Organizational learning, benchmarking and balance score card are some of the additional methods. Organizational learning has been said to be among the tools of operations improvement. Nkaiwuateri (2012) statistically confirmed that organizational learning contributes to continuous improvement, his study concluded that teamwork is very essential for organizations to achieve continuous improvement. He argues that a divided workforce has a divided vision hence it becomes really hard to achieve the required goals. Benson (2010) defines balanced score card as a tool of improvement that is based on the idea that measuring improvement must be multi-dimensional and focused on 4 dimensions i.e., finances, customers, internal processes, innovation and learning.

2.4 Customer Satisfaction

Customer satisfaction is "the level of a person's felt state resulting from comparing a product's perceived performance or outcome in violation to his or her own expectations". So customer satisfaction could be considered a comparative behavior between inputs beforehand and post obtainments (Wang & Shieh, 2006). Operations improvement approaches aims at providing the 'right thing at a right price at the right time to satisfy customers. Most of the improvement approaches developed by Gurus such as W.

Edwards Deming and Joseph Juran emphasized on quality, continual improvement, worker teams, empowerment, and achieving customer satisfaction (Stevenson et al, 2007). Customer satisfaction is very important as satisfied customer would add value to the brand and spread a positive word of mouth and help in making good reputation of brand. Satisfied customers would be able to make long term profitable relationship with brand (Hanif, Hafeez&Riaz, 2010).

In today's dynamic market, business organizations need to improve their operations as a means of enhancing customer satisfaction and increasing business responsiveness. Many within the service industries hesitate to improve the efficiency of their service because they fear decreasing the satisfaction of their customers. Therefore understanding the relationship between operations efficiency and customer satisfaction is crucial to creating a successful service business (Reinwald, 2013). If a customer is angry, you will need to apologize, or even give some gift to appease, but these are only temporary measures and do not address the real issue which leads to the next point (Kaizen) (Vineet Kr, 2011). Competition and continuously increasing standards of customer satisfaction has proven to be the endless driver of organizations performance improvement (Singh et al, 2009). One of the goals that six sigma program emphasizes is the goal of customer satisfaction.

Lindermann et al (2003) defines six sigma as an organized and systematic method for strategic process improvement and new product and service development that relies on statistical methods and the scientific method to make dramatic reductions in customer defined defect rates. This definition highlights the importance of improvements based on the customer's definition of a defect. Magutu, Mbeche, Nyaoga, Nyamwange, Onger and Ombati(2010) emphasizes on the need for further research to determine how Quality management can contribute to an organizational financial performance and customer satisfaction and to what extent can the benefits if any be quantified by the organizations.

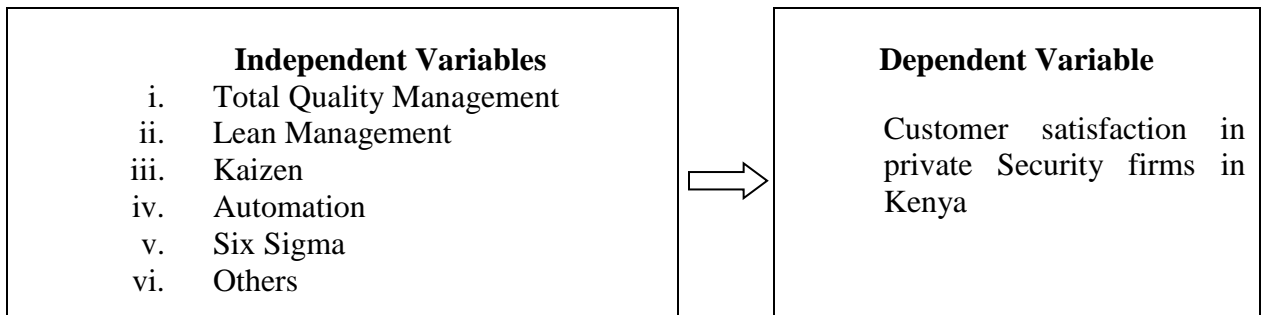
The need for Quality management systems as a means of customer satisfaction through operations improvement has also been articulated by (Andollo 2011). Their research focus being increased customer satisfaction and decreased production costs as well as helping organizations avoid product and service liability claims. Lean manufacturing as

an operations improvement tool encourages agility and responsiveness to customer demand, leading to greater profitability in a world where customer requirements are demanding and ever-changing. Ultimately production Costs are reduced by eliminating waste, decreasing defects, standardization, reduction of process variations, production control with a lot size that lowers overproduction and lastly continuous improvement to exceed Customer expectations (Cook &Victoria, 2004).

2.5 Conceptual Framework

The conceptual framework is comprised of operations improvement approaches (Total quality management, lean management, Kaizen, six sigma and increased automation) as independent variables and customer satisfaction in private security firms in Kenya as the dependent variable

Figure 2.2: Conceptual Model



Source: Author (2014)

Security industry like other service industries face many challenges as they strive to remain competitive, offer quality service, maintain customer satisfaction, reduce costs and maximize productivity. Operations improvement methods highlighted above as independent variables have been successfully used in health care to improve processes, set standards, eliminate bottlenecks and define quality goals (Benson, 2010).

Arora (2008) emphasizes on top management’s commitment, total employees involvement and organizational culture as key drivers of operations improvement strategies; he for example suggests that total employee’s involvement advantages include increased customer satisfaction, process improvement and control and lastly improved benchmarking.

Akanbi (2014) conducted a study to find out the nexus between organizational culture and perceived firm effectiveness in a manufacturing firm in Nigeria, his study revealed

that all the elements of organizational culture considered jointly predicted firm effectiveness. Employee involvement is another internal driver of operations improvement approaches in business organizations, employees who are aware of the processes and who are empowered are essential since people are the key element in lean manufacturing. The phrase “No one knows the job better than those who do it” indicates that the person who is experienced in his/her job is most likely to have a better understanding on it and therefore the need for involvement (Kisombe, 2012). On the other hand top management is also considered as the main recipe for success in many organizations (Ondiek et al, 2013)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research design that was used in collecting data, analyzing the data and reporting the results. The researcher aims at explaining the data collection instruments and procedures that was used to get relevant, reliable, valid and complete information that was related to the area of study. The subsections described the research design, target population, sample selection, research instruments and methods of data analysis.

3.2 Research Design

The study adopted a descriptive survey design. In descriptive studies the researcher takes out sample(s) and then wishes to make statements about the population on the basis of the sample analysis or analyses. More often than not, sample has to be designed (Kothari, 2004). When in-depth, narrative descriptions of small numbers of cases are involved, the research uses description as a tool to organize data into patterns that emerge during analysis (Maina, 2013). Surveys provide a quick, inexpensive, efficient and accurate means of assessing information about a population. This research design was the most appropriate method towards effectively addressing the research objectives because it provides information useful to the solutions of local issues (problems) (Salaria, 2012).

3.3 Population

The population of interest in this study was all private security firms in Nairobi County registered with KSIA. This population consisted of all the 30 firms registered under KSIA. Since the population is small a census of all the thirty firms was done.

3.4 Data Collection

Primary data was collected through two sets of self-administered questionnaires. Self-administered questionnaires are used in surveys where the respondent takes the responsibility for reading and answering the questions (Zikmund, Babin, Carr & Griffin,

2012). It is also advantageous in gathering data when time is limited. The questionnaires were made up of structured questions both closed and open ended questions. Each questionnaire consisted of two sections, namely A which objective was to obtain both demographic and general information and B addressed information related to customer satisfaction for the customers questionnaire and adopted operation improvement approaches for the managers questionnaire.

Two customers and one senior manager preferably the operations manager were chosen from each security firm. Customers chosen were non-employees or directors of these firms so as not to obtain biased information. Operations managers were preferred since they are the people responsible for transforming business resources into profitable and sustainable services. The questionnaires were delivered to the respondents both by email and hand delivery.

3.5 Data Analysis

All received questionnaires were edited for consistency, completeness and accuracy. Coding process followed to permit transfer of data from questionnaires to an appropriate computer program that aided in data analysis. Descriptive measures of mean and standard deviation were used to analyze adopted operations improvement approaches while data to achieve objective two was analyzed using the regression model shown below.

$$Z = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + \epsilon$$

Where Y = Customer satisfaction

X₃ = Kaizen

B₀ = Constant

X₄ = Automation

X₁ = Total quality management

X₅ = Six sigma

X₂ = Lean management

ε = Standard error

Regression statistics R, R² and F was interpreted to determine the strength of the relation.

T-tests were performed to tell the strength of the independent variables, whether they are significant or not.

CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1. Introduction

This chapter presents the analysis and findings of the study. First the chapter brings out the operations improvement approaches adopted by private security firms in Nairobi County. Secondly it highlights the levels of customer satisfaction as perceived by respective firms' customers. The study targeted all the 30 private security firms registered with KZIA out of which 19 responded. This gave a response rate of 63%. There are various researchers that have stated various response rates for survey. However, the general consensus is that 50% is usually considered adequate for analysis and reporting, 60% is considered good, and 70% or more is considered very good (Atsiaya, (2013). The high response rate was due to easy accessibility of the firms within Nairobi as well as their customers. The respondents were able to quickly understand the questions and would indicate by way of a tick the extent to which they agree as applicable.

The study had two objectives, first objective was to establish the operations improvement approaches employed by Private Security firms in Nairobi County and second objective was to determine the relationship between operations improvement approaches and customer satisfaction among Private Security firms in Nairobi County. The data was collected by use of two sets of questionnaires which were in the form of likert scale. Data was analyzed using SPSS version 21 for descriptive and inferential statistics.

4.2 General information of the respondents

Majority of the companies had over 1000 employees representing 47.4% of the total population. Only 10.5% of the firms had less or equal to five hundred employees. On the other hand 21.1% of the companies that had between 500 and 1000 employees. The same percentage omitted this in their questionnaire.

Information provided indicated that 42.1% of the respondents had over 20 years of existence in the industry. Only 10.5% of the respondents had less or equal to five years in the private security industry in Nairobi County. The rest 52.6% accounted for respondents with 6 to 20 years of existence as well as those that omitted the question.

Majority of the respondents were operations managers of whom the questionnaire mainly targeted, representing 42.1%. Sales executives, administration managers, and human resources managers accounted for 10.5% each, while marketing managers, assistant marketing managers, finance managers, relationship managers and other management personnel accounted for 5.3% each. This was important in ensuring the accuracy and authenticity of the information provided. The level management in which respondent belongs in organization is a key indicator of how well he/she understands organizations process (Bitok, 2013).

Respondents were asked to state how long they have been in the security firm. Majority had been in the industry for less than five years (78.9%). Those who had been in the industry for more than five years accounted for the rest 21.1%.The study sought to find the gender distribution of the respondents and the results shown that Majority of the respondents were male, representing 57.9%. Females accounted for 42.1% of the sample. The results imply that majority of the managers in private security firms are men. However a fair share of women voice is represented in the study.

The study also sought to find out the age distribution of the respondents and the results implied that the findings do not have an age bias and represent all age groups of working citizens in Kenya. The researcher was also interested in the level of education of the respondents who participated in the study. Majority of them had attained university or college education accounting for 78.9% of the total population, while 21.1% had only secondary school education. This implied that the respondents are knowledgeable and qualified on operations matters and had the ability to provide accurate and reliable information.

4.3 Operations Improvement approaches

There were five variables on Operations improvement approaches: Total Quality Management, lean management, Kaizen, automation and six sigma. Each of these variables was analyzed independently.

The respondents were asked to indicate the extent to which operations improvement approaches are applied in their firms. Respondent choices ranged from 1= Does not exist, 2= Very small extent, 3= Small extent, 4= some extent, 5= great extent, 6=Very great extent.

4.3.1 Total Quality Management

Table 4.1 Total quality management indicators

	Mean	Std. Deviation
1. Quality committees/teams that are headed by senior managers in the company exist and these teams meet either daily/weekly/monthly etc to deliberate on quality issues.	4.0526	0.9113
2. The firm is accredited by national or international bodies such International organization for standardization (ISO).	2.4737	2.1179
3. Control charts are used to track performance and to identify when processes are out of control.	3.8947	0.9941

Source: Primary data

The study findings in table 4.1 indicate that majority of the respondents have quality committee and teams within their organizations this is evident from the results, where the mean for this indicator is 4.053. Most of the firms are not accredited by national or international bodies such as ISO as evident from the results above, this indicator has the lowest mean. Organisations need to be innovative in order to survive and prosper. It is also suggested that TQM provides the necessary platform for inculcating innovation in organizations (Akinyi, 2013).

4.3.2 Lean Management

There is no doubt that the elimination of waste represents a huge potential in terms of manufacturing improvements- the key is to identify both waste and value, develop our knowledge management base, realize that sustainable improvement requires the buy in of the people operating the processes and managing the business, and therefore a culture of continuous improvement (Melton, 2005).

The results in table 4.2 below reveal that these firms have adopted changes to eliminate waste in the company processes to a great extent. Majority of the respondents indicated that there are standard operating procedures that ensure standardization of all work processes, the mean for this indicator is the highest at 5.16. The results show a remarkable adoption of lean management practices in private security firms in Nairobi County.

Table 4.2 lean management indicators

	Mean	Std. Deviation
1. Clients issues and complains are handled directly from the control centre to operations department with no wait time. In this case waiting time is considered as inventory and hence the company tries to reduce it to zero.	4.5789	0.6070
2. All waste in the company processes is eliminated such as, (Contracts of clients not willing to pay for services are terminated with immediate effect)	4.3684	1.2566
3. There are standard operating procedures that ensure standardization of all work processes.	5.1579	0.7647

Source: Primary data

4.3.3 Kaizen

The study also sought to find out the extent to which the firms have adopted Kaizen practices in their operations improvement efforts. The results are presented in table 4.3 below.

Table 4.3 Kaizen indicators

	Mean	Std. Deviation
1. Projects implementation processes are controlled through a specific cycle of steps and every stage is reviewed from time to time to analyze its improvement.	4.9474	0.8481
2. Team members' opinions and ideas are considered in all problems solving sessions.	5.2632	0.8057
3. Innovations, creativity and challenging mentality are encouraged in process improvement.	4.6842	0.9459

Source: Primary data

On Kaizen majority of the respondents indicated that team members' opinions and ideas are considered in all problem solving sessions to a great extent as shown by a mean score of 5.26. Good kaizen idea should: have positive influence on areas outside the maternal department of employee, affect the level of ordinary duty of employee, be characterized by the high level of practicality. It means that employee has devoted a lot personal time and energy, to achieve effective implementation, and obtain the results exceeding desired ones(Karkoszka et al, 2009).The results also revealed that to a great extent projects implementation processes are controlled through a specific cycle of steps and every stage is reviewed from time to time to analyze its improvement. Similarly innovations, creativity and challenging mentality are encouraged in process improvement to almost the same great extent.

4.3.4 Increased Automation

On increased automation the results shows that the firms have put in place measures such as signals, sms and email alerts to indicate insecurity alerts or unattended clients a great extent and the firms have automatic systems, which use variety of technologies to predict safety of facilities and site users, where if insecurity elements/intruders are detected workflow processes stops to address the issue to the same extent as indicated by their similar mean scores of 5.18. Similarly the results also show that there are online services designed to serve the best interests of customers to some extent as indicated by a mean score of 4.74 in table 4.4 below.

Table 4.4 Increased automation indicators

	Mean	Std. Deviation
1. Signals, SMS and Email alerts are used to indicate insecurity alerts or unattended clients.	5.1579	0.9582
2. There are online services designed to serve the best interests of customers.	4.7368	1.1945
3. There are automatic systems, which use variety of technologies to predict safety of facilities and site users, where if insecurity elements/intruders are detected workflow processes stops to address the issue.	5.1579	0.6882

Source: Primary data

However researchers like Sobhani (2008) conducted a study on impact of Information Technology on Productivity in the Telecommunication Company of Tehran and his findings were that the current situation of accessibility to necessary and common information team working and rate of paper work in Telecommunication Company of Tehran is not good enough.

4.3.5 Six sigma

Benson (2010) argues that the six sigma method is a cycle of steps that helps adopters define, analyze and measure an effort from various perspectives. The researcher findings show that the respondents agreed to a great extent with all the DMAIC (Define, Measure, Analyze, Improve and Control) indicators for this approach in the questionnaire. All indicators had a mean greater than 5, which imply six sigma was the most adopted approach in private security firms in Nairobi County as evident in table 4.5 below.

Table 4.5 Six sigma indicators

	Mean	Std. Deviation
1. Work processes are organized to meet the arrival rate of work. Duration of work processes such as training is predetermined to avoid delays in deployments.	5.3684	0.5973
2. All Projects and business operations have a well-defined scope.	5.2105	0.5353
3. Senior managers work with process owners to continuously improve systems and processes.	5.2632	0.4524
4. Business operations are measurable.	5.1053	0.6578
5. Business operations are regularly reviewed and analyzed.	5.3158	0.6710
6. There are structures put in place to control current business operations.	5.4211	0.6070

Source: Primary data

4.4 Descriptive Analysis for Customer Satisfaction

The respondents were asked to indicate the comment that most closely describes their level of satisfaction with the company's operations. Respondent choices ranged from 1= Very dissatisfied, 2= Dissatisfied, 3= Neutral, 4= Satisfied, 5= Very Satisfied. Table 4.6 shows the variables used indicate the level satisfaction of customers in private security

firms in Nairobi County. From Table 4.6 below, the average mean level of customer satisfaction is 4.61989 which shows that the customers of these firms are satisfied with operations approaches adopted

Table 4.6 Customers' level of satisfaction

Customers' level of satisfaction	Mean	Standard Deviation
Quality standards of the services provided by the Security Company.	4.8421	0.1754
Response times taken by the Security Company	4.5790	0.1919
Customer service procedures of the Security company, have they improved over time.	4.4195	0.1919
Levels of technology and innovations in the Security Company.	4.6858	0.1888
Efforts made by the Security Company to correct defaults/ errors in the services it provides you.	4.2105	0.0961
The company Services and equipment Prices.	4.6842	0.1539
Satisfaction with the provision of emergency and additional Services by your Security company.	4.6316	0.1569
Equipment maintenance and repair procedures that are carried out by the Security Company	4.7368	0.2142
Standard operating procedures	4.7895	0.1636
Average Mean	4.6199	

Source: Primary data

4.5 The Relationship between Operations Improvement Approaches and Customer Satisfaction.

Regression analysis was used to determine the relationship between operations improvement approaches variables and customer satisfaction variables. A regression model was used in the study: $Z = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + \epsilon$. Where Z =Customer satisfaction, $B_0 = z$ intercept, where X_1 is total quality management; X_2 is lean management; X_3 is Kaizen; X_4 is automation and X_5 is six sigma. $B_1 B_2 B_3 B_4$ and B_5 are regression weights attached to the variables. ϵ is the standard error.

The equation $Z = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + \epsilon$. Becomes; $Z = 4.16604 + 0.01542X_1 + 0.17041X_2 + 0.71979X_3 - 0.64691X_4 - 0.14281X_5$.

According to the regression equation established, taking all the five operations improvement approaches into account constant zero, customer satisfaction will be 4.16604.

The data findings analyzed also shows that taking all other independent variables at zero, a unit increase in TQM will lead to a 0.01542 increase in customer satisfaction in private security firms in Nairobi County. A unit increase in lean management will lead to a 0.17041 increase in customer satisfaction in private security firms in Nairobi County; a unit increase in Kaizen will lead to a 0.71979 increase in customer satisfaction in private security firms in Nairobi County; a unit increase in automation will lead to 0.64691 decrease in customer satisfaction in private security firms in Nairobi County and a unit increase in six sigma will lead to 0.14281 decrease in customer satisfaction in private security firms in Nairobi County. This infers that Kaizen practices contribute more to the customer satisfaction in private security firms in Nairobi County followed by lean management practices.

Table 4.7 Regression coefficients

	Coefficients	Standard Error	t Stat	P-value
Intercept	4.1660	1.2895	3.2307	0.0066
TQM	0.0154	0.0712	0.2167	0.8318
Lean Management	0.1704	0.2550	0.6683	0.5156
Kaizen	0.7198	0.3046	2.3631	0.0344
Automation	-0.6469	0.1862	-3.4740	0.0041
Six sigma	-0.1428	0.2525	-0.5657	0.5812

Source: Primary data

The study was interested in determining if there is a significant relationship between Operations improvement approaches and customer satisfaction. The hypotheses were;

H₀: Operations improvement approaches adopted by private security firms in Nairobi County predict the level of customer satisfaction.

Versus

H_A: Operations improvement approaches adopted by private security firms in Nairobi County do not predict the level of customer satisfaction.

Table 4.8 Regression Statistics

Multiple R	0.7724
R Square	0.5966
Adjusted R Square	0.4415
Standard Error	0.3315
Observations	19

Source: Primary data

The multiple correlation coefficients 0.7724. This indicates that the correlation among the independent and dependent variables is positive. The five independent variables that were studied, explain only 59.66% of the customer satisfaction in private security firms in Nairobi County as represented by the R^2 . This therefore means that other factors not studied in this research contribute 40.34% of the customer satisfaction in private security firms in Nairobi.

Table 4.9 ANOVA

	df	SS	MS	F	Significance F
Regression	5	2.1136	0.4227	3.8454	0.02331
Residual	13	1.4291	0.1099		
Total	18	3.5427			

Source: Primary data

The significance value is 0.023310654 which is smaller than 0.05, thus the model is statistically significant in predicting how TQM, lean management, Kaizen, automation and six sigma affect the customer satisfaction of private security firms in Nairobi County. Therefore the alternative hypothesis is rejected. The F critical at 5% level of significance was 3.0254. Since F calculated is greater than the F critical (value = 3.845415), this shows that the overall model was significant.

The t critical at 5% level of significance at $k = 6$ degrees of freedom is 1.943. Since t calculated values for automation and six sigma were below 1.943 then these two

variables were not significant in explaining the levels of customer satisfaction in private security firms in Nairobi County. The t calculated values for TQM, lean management and Kaizen practices were above 1.943 and hence these three variables are significant in explaining the levels of customer satisfaction in private security firms in Nairobi County.

The researcher wished to know if he may conclude that at 95% confidence level, there is no significant difference between the average mean of operations improvement approaches and the average mean of customer satisfaction. The hypotheses were;

$$H_o: \mu_1 = \mu_2$$

$$H_a: \mu_1 \neq \mu_2$$

Where μ_1 and μ_2 are the means of operations improvement approaches and customer satisfaction respectively, while H_o and H_a are the null and alternative hypotheses respectively.

A two sample z test was used to determine if two population means are equal or unequal. The results of the test are as shown in the table below.

Table 4.10 Difference between the two population means

z-Test: Two Sample for Means		
	Operations Improvement Approaches	Customer Satisfaction
Mean	4.7848	4.6197
Known Variance	0.2015	0.1968
Observations	19	19
Hypothesized Mean Difference	0	
z	1.1398	
P(Z<=z) one-tail	0.1272	
z Critical one-tail	1.6449	
P(Z<=z) two-tail	0.2544	
z Critical two-tail	1.9600	

Source: Primary data

Since Z calculated ($z=1.13978$) is less than Z critical ($z=1.96$) that is $1.13978 < 1.96$, the null hypothesis is not rejected. From these data, it is therefore concluded that the populations' means are equal.

CHAPTER FIVE: FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter gives the summary of the findings, and the conclusions in relation to the objectives of the study. It also gives the implication of the study. The recommendations and suggestion for further research is also given.

5.2 Summary of findings

The study used a descriptive survey design to investigate the research questions. Respondents were drawn from a census of all private security firms registered with KSIA. Data was collected using two set of self-administered questionnaires, one set targeting the managers and the other targeting customers. All completed questionnaires proceeded to data analysis. Data was analyzed using SPSS Version 21 for descriptive and inferential statistics. Descriptive statistics of mean and standard deviation analyzed the first objective while regression analysis was used to show the relationship between the adopted improvement approaches and customer satisfaction levels in these firms.

The study was interested in establishing the adopted operations improvement approaches adopted by private security firms in Nairobi County. There were a total of five variables: TQM, lean management, automation, Kaizen and six sigma. The researcher found out that most of these approaches are being applied in these security firms though not at uniform extent. The respondents ticked to great and very great extent columns in the questionnaires that they agreed with the indicators highlighted. It was evident from the study that most security firms are not accredited by national or international bodies such International organization for standardization (ISO), the mean for this indicator was less than 3. Six sigma, automation and Kaizen had majority of the respondents agreeing that to a great extent they apply or agree with the indicators.

The second objective of this research was to find out how operations improvement approaches adopted influence customer satisfaction in private security firms in Nairobi County. Multivariate correlation analysis done established that there is a positive and significant relationship between the adopted operations improvement

approaches and customers satisfaction in private security firms in Nairobi County. However increase in automation and six sigma practices were not significant in explaining the levels of customer satisfaction while TQM, Kaizen and lean management significantly explained this relationship.

5.3. Conclusions

Globally businesses are now concerned with improving their operations due to increased forces of regulations and competition. As the business environment changes, private security firms are forced to improve their operations to meet the needs and expectations of their customers. The findings also show that these firms have put in place operations improvement approaches to improve service quality, reduce operational costs and become flexible in today's dynamic world. This was evident in all the operations improvement approaches variables analyzed: total quality management, lean management, automation, Kaizen and six sigma.

The findings in chapter four established that operations improvement approaches adopted by private security firms in Nairobi County had a positive and significant relationship with customer satisfaction levels. Therefore the study concludes that as private security firms adopt operations improvent approaches such as TQM, lean management, automation, Kaizen and six sigma they increase customer satisfaction levels, which in turn results to profitable and sustainable business.

5.4. Recommendations

The results of this research suggest that linking operations improvement approaches to customer satisfaction is key in enabling service industries realize improved overall firm performance in terms of good profitable margins, capturing and retaining new markets and lastly employee and business growth. The established positive and significant relationship between the operations improvement approaches and customer satisfaction in private security firms in Nairobi County affirms this suggestion.

Organizations can use a combination of these approaches or one approach in isolation since majority of them show an increase in customer satisfaction. As seen in the results unit increase in TQM, lean management and Kaizen practices resulted to an increase in customer satisfaction.

5.5. Limitations of the Study

The study concentrates on five operations improvement approaches which shows a positive and significant relationship between adopted operations improvement approaches and customer satisfaction and infers that a favourable nexus between the two. However these variables do not explain 100% of this relationship. Therefore, it is important that the managers of private security firms to take into account all approaches other than operations that may enhance customer satisfaction than singularly focusing on operations improvement alone.

The study concentrated only on firms that are only registered with KSIA, however recently a lot of private security firms have come up and not yet registered with national bodies, they cannot be ignored since they contribute a significant percentage of the market share.

5.6 Suggestions for further study

The study suggests that a study should be undertaken to determine the relationship between the firms' financial performance and operations improvement approaches. There is need for this study to see the how satisfied customers would impact the firms financial health. Further studies can look at other approaches such as culture and business process reengineering would influence customer satisfaction levels.

Further research is needed not only in the security industry but also in other service industries to provide more evidence on the relationship between customer satisfaction levels and these approaches. The researcher recommends further research on the same topic in other private security firms outside Nairobi County, this will help to establish whether the same relationship exist when research is done in different locations. This will aid in providing justifiable facts upon which reliable conclusions can be drawn.

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APPENDICES

Appendix 1: Introduction Letter



UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MBA PROGRAMME

Telephone: 020-2059162
Telegrams: "Varsity", Nairobi
Telex: 22095 Varsity

P.O. Box 30197
Nairobi, Kenya

DATE.....11/09/2014

TO WHOM IT MAY CONCERN

The bearer of this letterKIBE JOHN KITHIU.....

Registration No.....DG1/60713/2013.....


is a bona fide continuing student in the Master of Business Administration (MBA) degree program in this University.

He/she is required to submit as part of his/her coursework assessment a research project report on a management problem. We would like the students to do their projects on real problems affecting firms in Kenya. We would, therefore, appreciate your assistance to enable him/her collect data in your organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organizations on request.

Thank you.




PATRICK NYABUTO
MBA ADMINISTRATOR
SCHOOL OF BUSINESS

Appendix II: Questionnaire 1

SECTION A: General Company Information

2.1 Company Details

2.1.1 Company Name:

2.1.2 Company Size(check \surd only one):

- (1) 1-100 employees (2) 101-500 employees
(3) 501-100 employees (4) over 1000 employees

2.1.3 How long have your company been existing(check \surd only one):

- (1) Less than a Year (2) 1-5 Years
(3) 6-20 Years (4) over 20 Years

2.2 About You

2.2.1 Describe your position:

2.2.2 How long have you been at the company:

2.2.3 Gender (check \surd only one):

Male Female

2.2.4 Age bracket (check \surd only one):

- (1) 18-25 (2) 26-35
(2) 36-50 (4) 50 and above

2.2.5 Level of Education (check \surd only one):

No formal education Primary School Secondary School College/University

SECTION B: Operations Improvement approaches adopted by your Security firm.

In this Section indicate to what extent the following operations improvement approaches are applied in you firm. Use the Scale of 1= Does not exist, 2= Very small extent, 3= Small extent, 4= some extent, 5= great extent, 6=Very great extent

No	Indicate the extent to which the following Operations Improvement approaches are applied in your firm or whether they exist.	1	2	3	4	5	6
1. Total Quality Management (TQM)							
(i)	There are Quality committees/teams that are headed by senior managers in the company that meets either daily/weekly/monthly etc to deliberate on quality issues.						
(ii)	Is your firm accredited by national or international bodies such International organization for standardization (ISO). Do these bodies carry quality audits annually or semi-annually in your organization?						
(iii)	Control charts are used to track performance and to identify when processes are out of control.						
2. Lean Management							
(i)	Clients issues and complains are handled directly from the control centre to operations department with no wait time. In this case waiting time is considered as inventory and						

	hence the company tries to reduce it to zero.						
(ii)	All waste in the company processes is eliminated such as, (Contracts of clients not willing to pay for services are terminated with immediate effect)						
(iii)	There are standard operating procedure that ensures standardization of all work processes.						
3. Kaizen							
(i)	Projects implementation processes are controlled through a specific cycle of steps and every stage is reviewed from time to time to analyze its improvement.						
(ii)	Team members' opinions and ideas are considered in all problem solving sessions.						
(iii)	Innovations, creativity and challenging mentality are encouraged in process improvement.						
4. Automation							
(i)	Signals, SMS and Email alerts are used to indicate insecurity alerts or unattended clients.						
(ii)	There are online services designed to serve the best interests of customers.						

(iii)	There are automatic systems, which use variety of technologies to predict safety of facilities and site users, where if insecurity elements/intruders are detected workflow processes stops to address the issue.						
5. Six Sigma							
(ii)	Work processes are organized to meet the arrival rate of work. Duration of work processes such as training is predetermined to avoid delays in deployments.						
(i)	All Projects and business operations have a well-defined scope.						
(ii)	Senior managers' works with process owners to continuously improve systems and processes.						
(iii)	Business operations are measurable.						
(iv)	Business operations are regularly reviewed and analyzed.						
(v)	There are structures put in place to control current business operations.						

Appendix III: Questionnaire 2

This Section requires you to give demographic information. This research is strictly for academic purposes and your responses will be accorded confidentiality. Thank you in advance for your co-operation.

Instructions: Please tick inside the space provided or fill where appropriate.

SECTION A: Demographic Information

1.1 Name of your Security

Company.....

.....

1.2 How long have you been a customer with this security company?

.....

1.3 Gender(check \surd only one):

Male Female

1.4 Age bracket (check \surd only one):

(3) 18-25 (2) 26-35

(4) 36-50 (4) 50 and above

1.5 Level of Education(check \surd only one):

No formal education	Primary School	Secondary School	College/University
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4

1.6 Category(check \surd only one):

Residential Services Client

Commercial Services Client

B: Customers' level of Satisfaction

Please tick the comment that most closely describes your level of satisfaction with the company's operations.

No	Customers' level of satisfaction	Very Dissatisfied	Dissatisfied	Neutral	Satisfied	Very Satisfied
	How Satisfied are you with the following:					
1	Quality standards of the services provided by your Security Company.					
2	Response times taken by your Security Company.					
3	Customer service procedures of your Security company, have they improved over time.					
4	Levels of technology and innovations in your Security Company.					
5	Efforts made by your Security Company to correct defaults/errors in the services it provides you.					
6	The company Services and equipment Prices.					
7	How Satisfied are you with the provision of emergency and additional Services by your Security company.					
8	Equipment maintenance and repair procedures that are carried out by your Security Company.					
9	Standard operating procedures					

Thank You Very Much for your Cooperation.

Appendix IV: Population

1. Absolute Security Ltd
2. AKKAD Systems
3. Bedrock Security Services Ltd
4. Bob Morgan Services Limited
5. Brinks Security Services
6. Cobra Security
7. Collindale Security
8. Corporate Security
9. Cybertrace
10. Delight Security Services Ltd
11. Envag Associates
12. Fidelity Security Services
13. G4S Security Services Kenya Limited
14. Infama Ltd
15. Instarect
16. KK Security
17. Magnum Allied Systems Ltd
18. Nine One One Group Limited
19. Northwood Services
20. Pinkerton's
21. Radar Security Limited
22. Riley Services Limited
23. Saladin Kenya Ltd
24. Securex Agencies Kenya Ltd
25. Security Group Of Companies Ltd
26. Texas Alarms
27. Total Security
28. Ultimate Security Ltd
29. Watchdog Alert
30. Wells Fargo Limited