

**EFFECT OF AUTOMATION REFORMS ON SERVICE DELIVERY
CASE OF CUSTOMS & BORDER CONTROL, KENYA**

LEAH MATHAIYA

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DECLARATION

This research paper is my original work and has not been presented for a degree in any other university.

Signature.....Date

Leah Mathaiya

REG NO: HDB335-C016-1816/2016

This research paper has been submitted for examination with our approval as the University supervisors.

Signature.....Date

Martin Mati

Lecturer - Kenya School of Revenue Administration.

DECLARATION

DEDICATION

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ABBREVIATIONS AND ACRONYMS

C&BC –Customs & Border Control

ECTS- Electronic Cargo Tracking System

APSC- Air Passenger Service Charge

KRA- Kenya Revenue Authority

EDT-Expectancy Dis-confirmation Theory

EAC-East African Community

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DEFINITION OF TERMS

ECTS- it's the system that enables real time tracking of transit cargo from point of departure through online platform

APSC- its charges levied by individual airports and vary depending on the airport in question.

KRA- it's a government agency that is responsible for the assessment, collection and accounting for all revenues that are due to government in accordance with the laws of Kenya.

EDT-it's a cognitive theory which seeks to explain post purchase or post adoption satisfaction as a function of expectations perceived performance and dis-confirmation of beliefs.

EAC- it's an intergovernmental organization composed of six countries in the African great lake region in eastern Africa.

ABSTRACT

The Customs & Border Control department is a critical department of Kenya Revenue Authority in terms of manpower, revenue collection and countrywide operational network. The department plays a critical role in the facilitation of trade through allowing goods entry into the country from diverse Kenya's trading partners such as China, and Turkey among other countries. The items that are brought into the country include electronic goods, cars, clothes, and house utility items among other items. The ability of the Customs department to deliver on its mandate is therefore extremely key to the country. Therefore, this study sought to examine the customer experience aspects influence on the public service delivery. Among the aspects that influence the customer experience include automation reforms at customs, waiting time management and staff training aspects. The theoretical framework of the study will be based on the institutional theory, Expectancy Dis-confirmation Theory (EDT) and Stakeholder theory. The study was based on the descriptive research design. The accessible population of the study was 204 clearing agents. A sample size of 105 respondents was used in the study. A structured questionnaire was used for the study. The Cronbach alpha coefficient of 0.7 and above was used for the study. Data was analyzed using SPSS software.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Members of the public measure the ability of their government by the quality of services and timeliness in delivery of these services. The role of quality public service delivery, is thus an important component of the government functions that should be held with utmost standards (Bergh & Ghijsen, 2012). Quality services also mark the position of a government in achieving set developmental milestones including millennium developing goals for developing countries. The core government services and provided utilities such as quality education, quality and affordable health services, freedom of expression by the press and communication are some of the areas whose improvement or decline could significantly influence achievement of these goals and standards (Binti & Isa, 2005). Over, the year's most developing countries have witnessed massive corruption, under-motivated employees and lack of flexible working strategies in public service arena (Constantinescu, 2012). The history of service delivery in the public domain in Kenya was characterized by corruption, negative attitude by the government officials, negligence and carelessness in handling public data and generally poor services by public servants (Kilonzo, 2012). The system also provided redundant mechanisms of handling isolated cases coupled by a highly centralized strategy that whose main operation solution worked on the "one fits all" approach. Corruption and favouritism provided a breeding ground for arrogant, under-qualified staff members that were hired through nepotism mostly. This provided a good environment for growth of the "boss knows me" or "we have family ties with the boss" attitude by the government officials that serious damaged the public perception and stalled service provision in some cases (Binti & Isa, 2005). In response,

the government embraced technology and information management systems that drastically improved service delivery. Additionally, there was introduced service charter where members of the public could rate and drop complaints about the modes of service delivery and as a monitoring and evaluation parallel program. Citizen Service Charters bench marked the minimum quality of services and expectations of the public for each service that they had lined up to get (Besley & Ghatak, 2007). The system adopted by the government in 2004 also outlines what should happen after every break in the cycle of services and until an individual is fully served.

Since their inception the Citizen charter have achieved on average a sizeable improvement in service delivery of public. However, just like any strategy in business and managing public services, the service charter brought in by the government had a shelf life tagged on it (Munusamy & Chelliah, 2011). As more citizens became satisfied by the improved quality of services, there was a noticeable need to improve the services even more. Re-strategy was therefore an inescapable reality for the government to meet the new 21st century standards.

The mandate of revenue collection, control of the customs and services department of Kenya's entry and exit point of goods is squarely given to the Kenya Revenues Authority by the government of Kenya (A. Ondiek, 2015). While the tax collecting and boarder customs control reports to and is fully funded by the national government of Kenya, its operations are independent making it a private agency within the government (Mugo, 2014). The revenue authority has five main geographical operating centers with the country namely; Northern region and Southern region, Central region, Rift Valley and Western regions. Revenue collection is functionalist are divided as; Road Transport, and Support Service, Customs Services, Investigations and Enforcement, Domestic Taxes and Large Taxpayers Office (Kirimi, 2013).

The functions and operations of KRA cross over to all government ministries that involve importation and exportation of goods and services through the Kenyan boarder points and the coastal region of Mombasa port (Dominic, 2014). These government ministries include the ministry of internal security and defence, the ministry of agriculture and tourism and the ministry of health. The importation of drugs and medicine, exportation of farm produce and importation of weaponry all fall in the Customs Services Department (CSD) and thus form the largest department in the KRA. The CSD is responsible for collecting import duty and other taxation on any commodities that enter (and leave) the country (A. Ondiek, 2015). Moreover, the CSD is mandated with the protecting the boarder points and coastal regions through inspection of actual goods and paper work for any goods brought into and sent out of the country.

Due to the high traffic of goods entering the eastern and central regions of Africa through the port of Mombasa, this port is categorized one of the busiest in Africa only second to the Durban port in South Africa (Maisiba & Atambo, 2016). The strategic position of the port opens East Africa and Central Africa to the world in the Middle East and Far East countries. Without a ports authority that regulates and only allows legal goods to be brought in, this would easily be a route for prohibited drugs, weaponry and other contraband (Cherogony, 2013). The responsibility again falls on the CSD department hence emphasizing the law enforcement and fiscal role it plays at the Boarder points. Since several East African countries members of the East African Community (EAC) are affected by the activities in Mombasa port, there was a need by the EAC to have a say in the customs and services (Mohamed, 2012). The latest action was a proposition to make the CSD an autonomous body that had the ability to regulate transit activities in the boarders of the member countries starting from the coastal port of Mombasa. While the action if carried out may vest more powers in the new CSD, some member countries with their own coast line may choose to

construct their own new ports. The main agenda of the EAC is for EAC member countries to allow free movement of goods and hence facilitating trade within the borders of the countries (Mukabi, 2014).

1.2 Statement of the Problem

The customs and services department is a critical department of Kenya Revenue Authority in terms of manpower, revenue collection and countrywide operational network. The department plays a critical role in the facilitation of trade through allowing goods entry into the country from diverse Kenya's trading partners such as China, and Turkey among other countries. The imports that are brought into the country include electronic goods, cars, clothes, and house utility items among other items. The ability of the customs department to deliver on its mandate is therefore extremely key to the country. Therefore, this study seeks to examine the effect of automation reforms in service delivery. Among the aspects that influence the customer experience include automation reforms at customs, waiting time management and staff training aspects.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study was to examine of the effect of automation reforms in service delivery at Customs and Border Control.

1.3.2 Specific Objectives

The specific objectives of the study were to;

- i) Examine the influence of the Customs Service Automation Reforms on Service delivery at Customs and Border Control
- ii) Establish the influence of waiting time management on service delivery at customs and border control
- iii) Examine the role of staff training on service delivery at Customs and Border Control

1.4 Research Questions

The study was based on the following research questions;

- i) What is the influence of the Customs Service Automation Reforms on the service delivery at Customs and Border Control?
- ii) How does waiting time management influence service delivery at customs and border control?
- iii) What is the role of staff training aspects on service delivery at customs and border control?

1.5 Significance of the Study

The study will be of significance to diverse stakeholders such as the clearing agents at the ports, the Kenya Revenue Authority, and researchers in the subject area. The study will examine on how the diverse aspects of the automation reforms impacts on the service delivery effectiveness. This information will be useful for the KRA management in making policy changes where there might be policy gaps. The clearing agents also stand to gain through deeper insights on the aspects that impact on the customs department performance. Finally, researchers will gain insights into the study phenomenon that will assist in their literature review in their studies.

1.6 Scope of the Study

The scope of the study was primarily in Nairobi.

1.7 Limitations of the Study

The study respondents were reluctant to answer the given questions for fear of divulging sensitive data that could impact on their firms. These fears were negated through the assurance the issuance of consent statement that assures the respondents that the information given will only be used for the purposes of the study only.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines the Theoretical framework, Empirical literature, Conceptual framework and research gaps.

2.2 Theoretical Framework

The theoretical framework of the study will be based on the institutional theory, Expectancy Dis-confirmation Theory (EDT), and stakeholder theory.

2.2.1 Institutional Theory

The theory developed in the early 1970s proposes a mutual effect between institutions thriving in the same working environments (Tshitenge, 2011). That is, institutions have the ability to influence each other's activities indirectly. However, the effect is most experienced in organizations that operate in the bigger environments. In the context of this paper, the main focus is on the customs functionality of the government Kenya Revenue Authority (KRA). The institutional theory fits in as KRA works under political environment, macro-economic environment which is in turn governed by strategies that ensure economic success nationally (Zhao, Lau, & Lam, 2002). By institutional theory, there is bound to be a degree of influence in from these two working environments.

2.2.2 Expectancy Dis-confirmation Theory (EDT)

Expectancy theory is a practical theory that suggests historical experience with a service or product acts as the benchmark for subsequent products and services. Should the consumers of a product or a service find a new product or service, they will analyse the goodness of the new service according to their experience with the existing service (Kankam-kwarteng & Donkor, 2016). After the full consumption of the services customers will either rate highly the new service, rate it to be at par with the existing or lower than what they know as a good

enough service. The EDT is built on four major pillars; expectations, perceived performance, dis-confirmation of beliefs and satisfaction. Expectations are the new things or aspects about a product or service that a consumer normally has on a new product. The extent of the effectiveness of a product or service with respect to the perception of the consumer forms the perceived performance pillar (Constantinescu, 2012). The level of expectations represents pre-consumption expectation. Should the perceived performance of the product or service of a product fall short of the consumer's expectations, dis-confirmation of the initial beliefs occurs. On the other hand, the consumer appreciating a service or product is a sign of satisfaction. The theory is focused on the consumer expectations that were met (EM) in the service or product experience (Bergh & Ghijssen, 2012). A dissatisfied, consumer will rate the product or service at very low EM while a satisfied one will rate the product/service at high EM ratings.

While EDT can be as effective in theoretically approaching certain situations, its ability become limited for customers who have not had any experience with other products or services. The theory relies heavily on the historical experience of the consumer to judge a new experience. In the context of the research sample of this paper, such situations will be met as there exists area in Kenya that are heavily marginalized.

2.2.3 Stakeholder Theory

Stakeholder theory is a more inclusive theory that includes all individuals that are affected or affect the profitability or benefiting of an organization. Agency theory only involved owner and employee, while Stakeholder Theory goes further as to include consumers and local communities with which an organization works. Owners of an organization employ managers who ensure that the business meets its targets and withstands all the prevailing conditions to meet the set goals (Michael, 2012). In turn the managers with the mandate of running the

business create networks of other stakeholders in ensuring whose inter-relations even without the knowledge of the owners contribute to the success of the organization.

For each stakeholder, it is the mandate of the management to ensure that their expectations are met and they have a sense contribution to the well-being of the organization. The business approach of stakeholder theory is focused on the profitability and creation of economic value for the business. This has to incorporate sustainability goals as per the regulations which includes creating sustainable environments and Corporate Social Responsibility (CSR) (Jones & Peppiatt, 2015). However, while the idea of Sustainable Development is still a new discipline in developing nations, it forms an inclusive approach that avoids conflicts at the corporate level with the regulatory authorities.

For the customs department, a government is the principal and therefore has to act as a benchmark for quality service delivery. The revenue authorities have to come up with methods that will maximize the revenue collected at its various departments. Thus the main stakeholder (government) delegates mandate to the leader of the revenue collection board (Zhao et al., 2002).

2.3 Empirical Review

2.3.1 Customs Service Business Automation Reforms

The significance of the customs department in the world of business cannot be emphasized enough since both parties are key for the growth of each other. It is important that the customs department operations change with modernization as the case in the business world (Karanja, 2010). This will allow adoption of new more flexible methods of detecting contraband goods as well setting regulations for importation and exportation of goods. The latter forms the bone of contention with the business world where the main challenge is

compliance of businesses with the stringent customs laws (A. Ondiek, 2015). While the customs and departments of most developing countries have remarkably improved over the years, compliance remains the biggest challenge.

While the government has incorporated competitive and standard tax reforms strategies over the years including the incorporation of the KRA, more effort is needed in the application of the enforcement of taxation rules (Dominic, 2014). The main aim of proper systems in the tax agency will enable KRA to seal loopholes that lead to losses of millions annually due to tax evasion. The main area of improvement is through incorporation of more flexible and yet strict measures that will reinforce KRA's administrative authority to hunt for tax evaders. Creation of a sustainable tax system forms the main aim of the tax reforms that will allow the revenue agency KRA to meet its annual set targets for tax collection (A. Ondiek, 2015). An inclusive initiative by the KRA which incorporated input and from the business world gave birth to projects such as the business automation project, valuation database the automated Air Passenger Service Charge (APSC) and Electronic Cargo Tracking Systems (ECTS).

2.3.2 Waiting Time

Waiting time defines the length of time that has elapsed between entering a queue getting served. Queues develop due to the high demand against numerically limited service providers/service officers. However an interesting phenomenon with waiting times and queues is that they are seasonal as there are times when there are no queues and there are times when the queues are so long that it requires additional man power to serve them all (Palawatta, 2015). In this light, the seasonality aspect of waiting demand forms a topic of investigation in order to properly address the problem of waiting time. One method of addressing seasonality in demand for services is to encourage customers to utilize services

during the off-peak seasons so as to avoid waiting in a queue to be served. However, a limitation to this method is that customers are pushed by economic reasons to go for services in the peak times as opposed to the off-peak seasons (Toh & Sern, 2011). The other method may be to increase manpower and resources to address long queues during peak seasons. However, most of the man power would stay idle in the of peak seasons thus creating no economic value in the long run.

Modern methods involve addition of self-service counters in order to reduce waiting time and queuing for the same services. Reducing waiting time has long being studied to increase perception of good services by the customers. The rationale behind incorporating self-service counters is bringing a solution to the fixed number of service providers during peak seasons. The idea of waiting time may be broken down into four main times all from the customer's perception: the true waiting time, the perceived waiting time and the cognitive waiting time (Munichor & Rafaeli, 2007). The true waiting time is the actual or estimated time between ordering of a service and receiving the actual service. In the context, where customers go to the service counter to receive services, true waiting time is the actual or estimated time between joining a queue for a service and the receiving and just before receiving the service. The true waiting time is measure or estimated using stop watches. Subjective waiting time on the other hand is the length of time that customers believe they have waited before being served, while cognitive waiting time are the perceptions that that emanate from the subjective waiting time(Jones & Peppiatt, 2015). These perceptions may be include acceptable waiting time, tolerable reasonable or their opposites.

While to a researcher objectivity and accurate measuring are key, customer perceptions of the length of stay before being served must be included in the study of waiting times. This is

because the customer perception of waiting time forms the basic yard stick in measuring customer satisfaction as explained by the waiting time. The case of waiting time presents two contesting views; the mathematical and psychological views (Hagen, Galetzka, & Pruyn, 2014). This paper will consider the psychological view as it come closer to explaining the feeling of satisfaction or disappointment by the customer. It is therefore important to include customer expectation of a service and what is actually provided during the course of serving the customer. If the service providers are able to meet the customer's expectations in the processes of providing service to the customers, then it suffices to say that the customer is satisfied with the service otherwise the customer is disappointed by the service. This is exceptionally applicable in the banking industry.

Psychological aspects of customer service have given rise to the emergence of managing customer perceptions within organizations. The general feeling or psychological implication of waiting time to customers is that it creates a bottle neck to the services offered and therefore creating a potential for negative ratings of the service should the time be extended (Demoulin, 2016). This emphasizes on the efforts to address the subjective aspect of waiting time by making the time to complete a given service constant. That is to say that the time it takes to complete a given service should not vary significantly as frequent customers are able to detect these variations. Managing the time it takes to complete the service leaves one lose end and that is addressing the emotional perception of the subjective time. This may be handled by providing conducive environments in the waiting area such as putting a news channel for customers.

2.3.3 Staff Competency Aspects

The staff competency aspect of the Customs Department staff is of critical importance in enabling the staff to undertake their functions with the required efficiency. The professional

competence of the customs staff is an integral component of effective public service delivery aspects. The staff competency relates to the ability of individual staff to perform their jobs or tasks effectively based on the educational level, professional experience, and personal attitudes (Luo, Liberatore, Nydick, Chung, & Sloane, 2004). The customs staff determines the customer experience while undertaking diverse functions at the customs department such as valuation of the goods to determine tax payable, payment of the taxes due and clearing aspects of goods. The staff competency determines the ability of the staff to perform the systematic and disciplined approach to work functions with a view of improving effectiveness of internal audit. Competency of staff determines the quality of work performed in an organization. Competency is measured in terms of academic level, experience, skill and the effort of the staffs for continuing professional development. Competency determines the efficiency of the customs officers in setting a systematic and disciplined approach to evaluate and improve the effectiveness of the organization's activities and financial management as well as governance processes (Antonides, Verhoef, & van Aalst, 2002).

The customs department must be sufficiently qualified, and in possess the requisite knowledge and skill to discharge the responsibilities associated with customs duties. The customs department work is reliant upon the competence, as demonstrated by qualifications and experience, of the staff involved. There are two broad qualities or skills expected from the customs staff in order to enhance the professional efficiency and ultimately impact on the effectiveness of their function. These two broad skills include the cognitive and behavioural skills. The cognitive skills requires customs staff to demonstrate the technical, analytic, and appreciative skills, whereas in behavioural terms, it is essential that s/he has good interpersonal and organizational skills (Muhammad, Mansoor, Aamir, & Khalid, 2014). Other necessary skills includes the professional experience, communication skills and the cognitive abilities such as focused, helpful, decisive and balanced.

2.4 Conceptual Framework.

Independent Variables

Dependent Variable

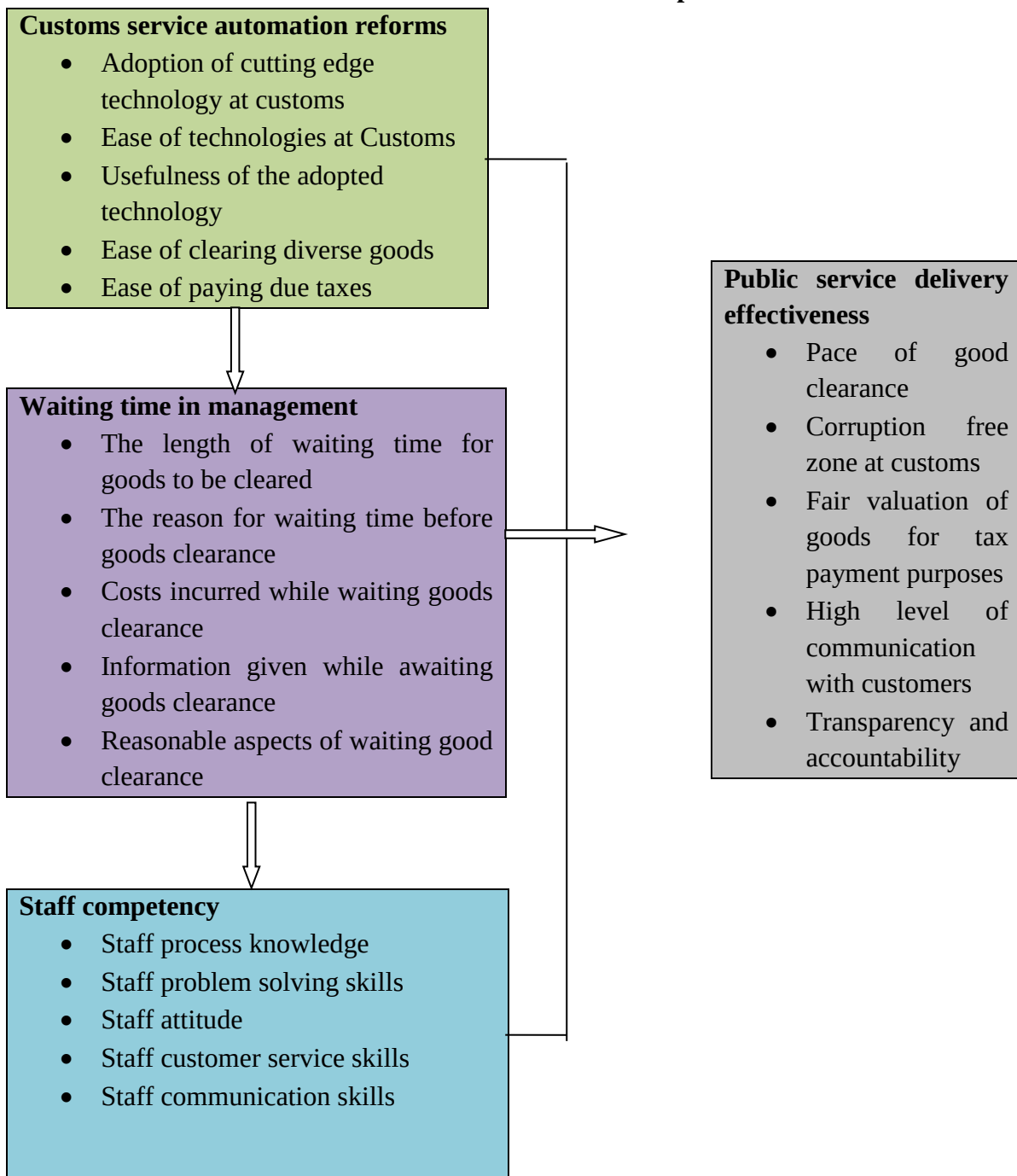


Figure 2.1; Conceptual Framework

Source; Researcher (2017)

2.5 Research Gaps

Diverse studies have examined the concept of service delivery and customer experience. These studies however failed to examine the aspect of customer experience and service delivery within the context of Customs Department despite KRA being a significant economic player in the country.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The framework with which the research was approached forms the topic research methodology. Several aspects of the research methodology such as the most appropriate design of research, the applicability of the chosen design in dictating how data was collected form the bulk of this chapter. Sampling techniques, inclusion characteristics, data collection instruments and the methods of analysis of the data also all discussed in the chapter.

3.2 Research Design

The set of step by step proposed ways of research form the research methodology (Gall, Gall, & Borg, 2007). The proposed methods were the framework for data collection as they were connected to the objectives of the study to the concept that was being studied. In the area of research, three designs exist: descriptive, experimental and causal research designs. This study used a descriptive design where the data was collected in an attempt to find out the underlying phenomenon in the data through testing two contesting hypotheses.

3.3 Target Population

The population refers to a group of people or events with a defining characteristic that is of interest to the researcher. The population was divided into the target and accessible population (Orodho, 2003). The target population refers to the hypothetical set of all the people that meet the criteria that is of interest to the researcher. The target population for this study included all the customers such as clearing agents for the customs department. However, due to challenges associated with the identification of all the clearing agents the research used the accessible population. The accessible population refers to the set of the

target population that is practically accessible to the researcher. The accessible population of the study for this study is 204 clearing agents.

3.4 Sample Size and Sampling Technique

A sample should strictly represent the desired population characteristic (Ondiek, 2008). However, due to the heterogeneity and other factors of the population, strict 100% representation is never achieved. This prompts for a need for a certain degree of precision in the sample. With a predefined variation from the population average and a margin of error in measuring the population, we can determine the size of the sample with the least error of estimation with the formula:

$$n = \frac{NC^2}{C^2 + (N-1)e^2} \quad \text{Where}$$

n = sample size

N = size of target population

C = coefficient of variation (0.5)

e = error margin (0.05)

$$n = \frac{204 (0.5^2)}{0.5^2 + (204-1)0.05^2} = 105 \text{ respondents}$$

3.5 Research Instrument

In order to capture the first hand information from the study respondents, the best method was to use questionnaires (Mugenda and Mugenda, 2009). Questionnaires may either be open ended or closed types. The latter allow the respondents only a limited choice of answers to choose from but capture all the information that the researcher is interested in. The former allows for different views of the respondents answers and involves despite the fact that answers may be irrelevant or sometimes abusive. For the sake of validity, a closed type of questionnaire will be adopted that captures the respondent's demographic information was

used (Sekaran, 2003). It is worth noting that personal information will strictly not be required and none of the respondents by choice or otherwise has to include such kind of information.

3.6 Pilot Study

A pilot study is a test for the feasibility of the study instruments and study procedures proposed by research design. Pilot studies are important since they save the entire research endeavor on unexpected mistakes and errors and also test on the economic cost that the research will require. After only a section of the respondents will be asked the questions, to avoid bias, it is important not to collect data on them in the main data collection exercise.

3.6.1 Reliability of the Research Instrument

Opinions of experts on the goodness of questions being asked in the questionnaire will be asked and in an attempt to map the reliability of the questionnaire in meeting the objectives of the study. Cronbach's alpha will then be used to analyze the reliability of the research. The instrument will be deemed reliable if the variables return alpha equal to or greater than 0.7 ($\alpha \geq 0.7$).

3.6.2 Validity of the Research Instrument

Simply put, validity of research instruments is the investigation of how far the questions in the questionnaire are from the truth as dictated by what the question claim to measure (Orodho, 2003). To capture validity of the questions in the questionnaire, content validity will be used as dictated by the expert opinion by various professionals. An instrument must first be reliable before it meets validity threshold. This because content validity cannot be numerically be determined as in the case of statistical outputs.

3.7 Data Collection Procedure

In raw data collection using questionnaires, it is important that the researcher present a consent form to the respondents from the organization he is gathering information for and

from the organization he is intending to gather information. The consent statement advises the respondents that their responses will be kept anonymous and the confidential in nature

3.8 Data Analysis and Presentation

After the questionnaires are picked, coding will follow where irrelevant and wrongly filled in questionnaires will not be entered into the system. The data entered into the system will then be edited to fit the required criteria and stored for analysis. Analysis will be done using statistical software Statistical Package for Social Sciences (SPSS) to make inferences about the population using the sample data collected. The aim of the study is to use multiple linear regression to analyze the effect of the selected independent variables on the dependent variable.

CHAPTER FOUR

RESEARCH FINDINGS AND DATA ANALYSIS

4.1 Introduction

This chapter describes the research findings and analysis of data used to identify the effects of automation reforms on service delivery at Customs & Border Control, Kenya. This was done by examining the objectives which included examining the influence of Customs service automation reforms, influence of waiting time management, and influence of staff competency on service delivery at Customs & Border Control, Kenya.

4.2 Response Rate

Data was obtained from self-administered questionnaires, completed by 88 clearing agents which gave an 83.8% response rate. A total of 105 questionnaires were distributed and collected. However, only 88 questionnaires met the criteria for being included in the analysis, which was a complete questionnaire with no identifying information. Of the 17 questionnaires deemed unusable, 15 questionnaires had omissions on some questions while 2 questionnaires contained identifying information (names of the respondents). Therefore, only 88 questionnaires satisfied the inclusion criteria for data entry hence data from these questionnaires formed the basis of the analysis and results.

4.3 Background Information

The background information of the respondents was examined using the gender of the respondent and the number of years the respondent has worked as a clearing agent.

4.3.1 Gender Distribution

The respondents were asked to indicate their gender. Most of the respondents were male (59.1%) while the female respondents were 40.9%. The clearing agents have been predominantly male although there has been an increase in female clearing agents in recent years.

Table 4.1; Distribution by Gender

Gender	Number	Percentage
Male	52	59.1%
Female	36	40.9%
Total	88	100.0%

Source; Research Data (2017)

4.3.2 Years worked as Clearing Agent

The number of years that respondents have worked as clearing agents was sought. Most of the respondents (38.6% had been clearing agents for 6 to 10 years. Those who had been clearing agents for less than 3 years were 8.0%, while those who had been clearing agents for above 10 years were 29.5%. The respondents who had been clearing agents for 3 to 5 years were 23.9%.

Table 4.2; Distribution by Years worked as Clearing Agent

	Number	Percentage
Less than 3 years	7	8.0%
3-5 years	21	23.9%
6-10 years	34	38.6%
Above 10 years	26	29.5%
Total	88	100.0%

Source; Research Data (2017)

4.4 Customs Service Automation Reforms

The significance of the Customs Department in the world of business cannot be emphasized enough since both parties are key for the growth of each other. It is important that the Customs Department operations change with modernization as the case in the business world (Karanja, 2010). This will allow adoption of new more flexible methods of detecting contraband goods as well setting regulations for importation and exportation of goods. The latter forms the bone of contention with the business world where the main challenge is compliance of businesses with the stringent customs laws (A. Ondiek, 2015). While the

Customs and Departments of most developing countries have remarkably improved over the years, compliance remains the biggest challenge.

The study examined which customs service automation has impacted on the service delivery at customs using various metrics. These included adoption of cutting edge technology at customs, ease of technologies at customs, usefulness of the adopted technology, ease of clearing diverse goods, and ease of paying due taxes. A five-point Likert scale of 1, 2, 3, 4, and 5 corresponding to strongly disagree, disagree, uncertain, agree and strongly agree was used to determine the extent to which the respondents either agreed or disagreed with a given metric. Most of the respondents tended to strongly agree that adoption of cutting edge technology at customs (48.9%) and ease of technologies at customs (42.0%) had an effect on service delivery at Customs & Border Control, Kenya. This was further supported by 33.0% and 28.4% who tended to agree that both metrics had an effect on service delivery at Customs & Border Control, Kenya.

In the context of usefulness of the adopted technology, ease of clearing diverse goods, and ease of paying due taxes, most of the respondents tended to agree that each affected the service delivery at Customs & Border Control, Kenya, that is 44.3%, 43.2% and 50.0% respectively. The effect of ease of clearing diverse goods on the service delivery at Customs & Border Control, Kenya scored strong opposition from a small number of respondents (9.1%). However, none of the other customs service automation metrics had respondents who tended to strongly disagree on their effect on the service delivery at Customs & Border Control, Kenya.

The mean scores and standard deviations of the various customs service automation metrics were used to examine the average perception and level of consensus among the respondents

on the effect of automation reforms on service delivery at Customs & Border Control, Kenya. The mean scores between 4.5 and 5 implied respondents' tendency to strongly agree on average, between 3.5 and 4.5 implied respondents' tendency to agree on average, 2.5 and 3.5 implied respondents' uncertainty on average, 1.5 and 2.5 implied respondents' tendency to disagree on average, and 1.5 and 1 implied respondents' tendency to strongly disagree on average.

The standard deviations between 0 and 0.5 implied there was high consensus among respondents, 0.5 to 1 implied moderate consensus among respondents, and greater than one implied no consensus among respondents. All the mean scores of the various customs service automation metrics were between 3.5 and 4.5 which implied that on average, the respondents tended to agree (mean scores between 3.5 and 4.5) that each metric had an effect on the service delivery at Customs & Border Control, Kenya. There was also moderate consensus (standard deviations between 0.5 to 1) among the respondents on the metrics except for ease of clearing diverse goods whose effect on the service delivery at Customs & Border Control, Kenya attracted no consensus among respondents (standard deviation greater than one).

The ranking of mean scores from the highest to the lowest gave adoption of cutting edge technology at customs as the metric with highest mean (mean=4.28; std. dev.=0.82) among the customs service automation metrics. This implied that on average, the respondents perceived its effect on the service delivery at Customs & Border Control, Kenya to be greater than that of the other metrics. Ease of technologies was ranked second (mean=4.07; std. dev.=0.94), ease of paying due tax ranked third (mean=3.93; std. dev.=0.88), usefulness of the adopted technology ranked fourth (mean=3.84; std. dev.=0.92), and last in rank was ease of technologies at customs (mean=3.61; std. dev.=1.23)

Table 4.3; Descriptive Statistics of Customs Service Automation Reforms

	SA	A	U	D	SD	Mea	Std.
	Freq.	Freq.	Freq.	Freq.	Freq.	n	Dev.
	(%)	(%)	(%)	(%)	(%)		
Adoption of cutting edge technology at customs	43 (48.9%)	29 (33.0%)	14 (15.9%)	2 (2.3%)	0 (0.0%)	4.28	0.82
Ease of technologies at customs	37 (42.0%)	25 (28.4%)	21 (23.9%)	5 (5.7%)	0 (0.0%)	4.07	0.94
Usefulness of the adopted technology	22 (25.0%)	39 (44.3%)	18 (20.5%)	9 (10.2%)	0 (0.0%)	3.84	0.92
Ease of clearing diverse goods	21 (23.9%)	38 (43.2%)	11 (12.5%)	10 (11.4%)	8 (9.1%)	3.61	1.23
Ease of paying due taxes	23 (26.1%)	44 (50.0%)	13 (14.8%)	8 (9.1%)	0 (0.0%)	3.93	0.88

Source; Research Data (2017)

4.5 Waiting Time Management

Waiting time defines the length of time that has elapsed between entering a queue getting served. Queues develop due to the high demand against numerically limited service providers/service officers. However an interesting phenomenon with waiting times and queues is that they are seasonal as there are times when there are no queues and there are times when the queues are so long that it requires additional man power to serve them all (Palawatta, 2015). In this light, the seasonality aspect of waiting demand forms a topic of investigation in order to properly address the problem of waiting time.

The study examined the waiting time aspects that impact on the service delivery at Customs & Border Control, Kenya. These were examined using the length of waiting time for goods to be cleared, the reason for waiting time before goods clearance, costs incurred while awaiting goods clearance, information given while awaiting goods clearance, and reasonable aspects of awaiting good clearance. The respondents who tended to agree that the length of waiting

time for goods to be cleared (33.0%) had an effect on the service delivery at Customs & Border Control, Kenya. The respondents who were uncertain about the effect of the length of waiting time for goods to be cleared on the service delivery at Customs & Border Control, Kenya were 31.8%. The respondents who strongly perceived that the length of waiting time for goods to be cleared not to have an effect on the service delivery at Customs & Border Control, Kenya were 4.5%.

Most of the respondents strongly affirmed that the reason as well as the costs for waiting time before goods clearance (40.9% each) both have an effect on the service delivery at Customs & Border Control, Kenya, which was supported further by 30.7% for each metric who affirmed the same. Slightly more than half of the respondents (53.4%) strongly affirmed that information given while awaiting goods clearance have an effect on the service delivery at Customs & Border Control, Kenya and an additional 30.7% affirmed the same. Most of the respondents (42.0%) perceived reasonable aspects of awaiting good clearance to have an effect on the service delivery at Customs & Border Control, Kenya. None of the respondents felt that the reason for waiting time before goods clearance, costs incurred while awaiting goods clearance, information given while awaiting goods clearance and reasonable aspects of awaiting good clearance don't affect the service delivery at Customs & Border Control, Kenya.

The mean scores for the metrics on waiting time management and the standard deviations were used to examine the average perception and level of consensus among the respondents on a given metric. On average, the respondents tended to agree (mean scores between 3.5 and 4.5) that the reason for waiting time before goods clearance (mean=4.05), costs incurred while awaiting goods clearance (mean=4.02), information given while awaiting goods

clearance (mean=4.36), and reasonable aspects of awaiting good clearance (mean=4.02) each has an effect on the service delivery at Customs & Border Control, Kenya.

Table 4.4; Descriptive Statistics of Waiting Time Management

	SA	A	U	D	SD	Mean	Std. Dev.
	Freq.	Freq.	Freq.	Freq.	Freq.		
	(%)	(%)	(%)	(%)	(%)		
The length of waiting time for goods to be cleared	15 (17.0%)	29 (33.0%)	28 (31.8%)	12 (13.6%)	4 (4.5%)	3.44	1.07
The reason for waiting time before goods clearance	36 (40.9%)	27 (30.7%)	18 (20.5%)	7 (8.0%)	0 (0.0%)	4.05	0.97
Costs incurred while awaiting goods clearance	36 (40.9%)	27 (30.7%)	16 (18.2%)	9 (10.2%)	0 (0.0%)	4.02	1.00
Information given while awaiting goods clearance	47 (53.4%)	27 (30.7%)	13 (14.8%)	1 (1.1%)	0 (0.0%)	4.36	0.78
Reasonable aspects of awaiting good clearance	37 (42.0%)	24 (27.3%)	19 (21.6%)	8 (9.1%)	0 (0.0%)	4.02	1.01

Source; Research Data (2017)

On average, the respondents tended to be uncertain (mean score between 2.5 and 3.5) about the effect of the length of waiting time for goods to be cleared on the service delivery at Customs & Border Control, Kenya as its mean was 3.44. There was no consensus (standard deviation greater than 1) among the respondents on the effect of the length of waiting time for goods to be cleared (std. dev.=1.07) and reasonable aspects of awaiting good clearance (std. dev.=1.00) on the service delivery at Customs & Border Control, Kenya. On the other hand, there was moderate consensus (standard deviations between 0.5 and 1) among respondents that the reason for waiting time before goods clearance (std. dev.=1.07), costs incurred while awaiting goods clearance (1.00), and information given while awaiting goods clearance(std. dev. 1.01) each affects the service delivery at Customs & Border Control, Kenya.

4.6 Staff Competency

The staff competency aspect of the Customs Department staff is of critical importance in enabling the staff to undertake their functions with the required efficiency. The professional competence of the Customs staff is an integral component of effective public service delivery aspects. The staff competency related to the ability of individual staff to perform their jobs or tasks effectively based on the educational level, professional experience, and personal attitudes (Luo, Liberatore, Nydick, Chung, & Sloane, 2004). The Customs staff determined the customer experience while undertaking diverse functions at the Customs & Border Control department such as valuation of the goods to determine tax payable, payment of the taxes due and clearing aspects of goods.

The staff competency determined the ability of the staff to perform the systematic and disciplined approach to work functions with a view of improving effectiveness of internal audit. Competency of staff determined the quality of work performed in an organization. Competency is measured in terms of academic level, experience, skill and the effort of the staffs for continuing professional development. Competency determined the efficiency of the Customs officers in setting a systematic and disciplined approach to evaluate and improve the effectiveness of the organization's activities and financial management as well as governance processes (Antonides, Verhoef, & van Aalst, 2002).

The study examined the staff competency aspects that impact on service delivery at Customs & Border Control, Kenya using various metrics. In this context, the staff process knowledge, problem solving skills, attitude, customer service skills, and communication skills were examined. Most of the respondents felt that the problem solving skills as well as customer service skills of the staff of Customs & Border Control, Kenya have a huge effect on service delivery of customs (strongly agree=48.9% and 43.2% respectively). An additional 22.7% and

35.2% respectively agreed that the problem solving skills as well as customer service skills of the staff of Customs & Border Control, Kenya have an effect on service delivery of customs.

The staff process knowledge affects the service delivery at Customs & Border Control, Kenya as most of the respondents (36.4%) chose agree in response to the prompt. There were 23.9% of respondents who were uncertain, 13.6% who disagreed and 11.4% who strongly disagreed that staff process knowledge affects the service delivery at Customs & Border Control, Kenya. More than half of the respondents (62.5%) strongly affirmed and 26.1% affirmed that the communication skills of the staff at Customs & Border Control, Kenya have an effect on service delivery of customs. Further, there were no opposing responses (0.0% strongly disagree and disagree) on the effect of the communication skills of the staff at Customs & Border Control, Kenya on service delivery of customs.

The mean scores of the various metrics on staff competency metrics and their standard deviations were used to determine the average perception and level of consensus among respondents on a given metric. The staff process knowledge had a mean score of 3.30 which was between 2.5 and 3.5. This implied that the respondents on average tended to be uncertain about the effect of staff process knowledge on the service delivery at Customs & Border Control, Kenya. There was no consensus (standard deviation greater than 1) on the effect of staff process knowledge on the service delivery at Customs & Border Control, Kenya which had a standard deviation of 1.21. The respondents on average tended to agree (mean scores between 3.5 and 4.5) that the problem solving skills (mean=4.08) and attitude (mean=3.80) of staff at Customs & Border Control, Kenya had an effect on the service delivery at Customs & Border Control, Kenya. There was no consensus among respondents on the effect of staff problem solving skills and staff attitude on the service delivery at Customs & Border Control,

Kenya which had standard deviations of 1.07 and 1.06 respectively. On average, the respondents tended to agree that staff customer service skills (mean=4.20) as well as staff communication skills (0.51) affect the service delivery at Customs & Border Control, Kenya. There was also moderate consensus among respondents on the effect of staff customer service skills (std. dev.=0.80) as well as staff communication skills (std. dev.=0.69) on the service delivery at Customs & Border Control, Kenya.

Table 4.5; Descriptive Statistics of Staff Competency

	SA	A	U	D	SD	Mean	Std.
	Freq.	Freq.	Freq.	Freq.	Freq.		Dev.
	(%)	(%)	(%)	(%)	(%)		
Staff process knowledge	13 (14.8%)	32 (36.4%)	21 (23.9%)	12 (13.6%)	10 (11.4%)	3.30	1.21
Staff problem solving skills	43 (48.9%)	20 (22.7%)	14 (15.9%)	11 (12.5%)	0 (0.0%)	4.08	1.07
Staff attitude	23 (26.1%)	39 (44.3%)	15 (17.0%)	7 (8.0%)	4 (4.5%)	3.80	1.06
Staff customer service skills	38 (43.2%)	31 (35.2%)	18 (20.5%)	1 (1.1%)	0 (0.0%)	4.20	0.80
Staff communication skills	55 (62.5%)	23 (26.1%)	10 (11.4%)	0 (0.0%)	0 (0.0%)	4.51	0.69

Source; Research Data (2017)

4.7 Service Delivery Effectiveness

According to the Expectancy Disconfirmation Theory, the extent of the effectiveness of a product or service with respect to the perception of the consumer forms the perceived performance pillar (Constantinescu, 2012). The level of expectations represents pre-consumption expectation. Should the perceived performance of the product or service of a product fall short of the consumer's expectations, disconfirmation of the initial beliefs occurs. On the other hand, the consumer appreciating a service or product is a sign of satisfaction.

The study sought to examine the impact of various customer experience aspects on public service delivery effectiveness at Customs & Border Control, Kenya. These aspects included the pace of good clearance, corruption free zone at customs, fair valuation of goods for tax payment purposes, high level of communication with customers, and transparency and accountability. Slightly more than half of the respondents (54.5%) perceived pace of good clearance to have a huge impact on the public service delivery effectiveness at customs, further supported by 27.3% of the respondents who affirmed the impact of pace of good clearance on public service delivery effectiveness at customs. Most of the respondents (43.2%) tended to strongly agree that corruption free zone at customs had an impact on public service delivery effectiveness at customs. The respondents who tended to agreed, were uncertain and disagreed on the impact of corruption free zone at customs on public service delivery effectiveness at customs were 26.1%, 22.7% and 8.0% respectively.

Fair valuation of goods for tax payment purposes, high level of communication with customers and transparency and accountability attracted a majority of agree responses (43.2%, 42.0% and 47.7% respectively) which affirmed they each had an impact on public service delivery effectiveness at customs. High level of communication with customers did not attract any disagree or strongly disagree response (0.0%). All the customer experience aspects did not have a strongly disagree response which indicated that the customer service aspects are critical public service delivery at Customs & Border Control, Kenya to be effective. All the metrics on customer service aspects had mean scores between 3.5 and 4.5 which implied that respondents tended to agree that each metric has an impact on public service delivery effectiveness at customs.

Table 4.6; Descriptive Statistics of Service Delivery Effectiveness

	SA	A	U	D	SD	Mean	Std. Dev.
	Freq.	Freq.	Freq.	Freq.	Freq.		
	(%)	(%)	(%)	(%)	(%)		
Pace of good clearance	48 (54.5%)	24 (27.3%)	13 (14.8%)	3 (3.4%)	0 (0.0%)	4.33	0.85
Corruption free zone at customs	38 (43.2%)	23 (26.1%)	20 (22.7%)	7 (8.0%)	0 (0.0%)	4.05	0.99
Fair valuation of goods for tax payment purposes	23 (26.1%)	38 (43.2%)	15 (17.0%)	12 (13.6%)	0 (0.0%)	3.82	0.98
High level of communication with customers	25 (28.4%)	37 (42.0%)	26 (29.5%)	0 (0.0%)	0 (0.0%)	3.99	0.77
Transparency and accountability	23 (26.1%)	42 (47.7%)	13 (14.8%)	10 (11.4%)	0 (0.0%)	3.89	0.93

Source; Research Data (2017)

There was moderate consensus among the respondents that each of the metrics had an impact on public service delivery effectiveness at customs as the standard deviations for all the metrics were between 0.5 and 1. Therefore, the respondents tended to agree that the pace of good clearance (mean=4.33; std.dev.=0.85), corruption free zone at customs(mean=4.05; std.dev.=0.99), and fair valuation of goods for tax payment purposes (mean=3.82; std.dev.=0.98) had an impact on public service delivery effectiveness at customs. Similarly, high level of communication with customers (mean=3.99; std.dev.=0.77) and transparency and accountability (mean=3.89; std.dev.=0.93) on average were perceived to have an impact on public service delivery effectiveness at customs.

4.8 Multiple Linear Regression

The study examined the relationship between the independent variables and the dependent variable using the multiple linear regression model. The regression model had the independent variables as staff competency, customs service automation reforms and waiting time management and the dependent variable as service delivery. This regression model gave

a correlation coefficient (R) of 0.912 which implies that the staff competency, customs service automation reforms and waiting time management are positively correlated with service delivery at customs. The coefficient of determination (R square) was 0.831 which implied that 83.1% of the variance in service delivery at customs can be accounted for by staff competency, customs service automation reforms and waiting time management. Therefore, there could be other factors not considered in the current regression model that account for 16.9% of the variance in service delivery at customs.

Table 4.7; Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.912 ^a	.831	.825	.25480

a. Predictors: (Constant), Staff Competency, Customs Service Automation Reforms, Waiting Time Management

The viability of the multiple regression model with the independent variables as staff competency, customs service automation reforms and waiting time management and the dependent variable as service delivery was examined. The p-value at a 0.05 level of significance was used to determine the overall viability of the model. A p-value of less than 0.05 therefore would imply that the model was viable. This regression model gave a p-value of 0.000 which was less than 0.05 implying that the regression model with the independent variables as staff competency, customs service automation reforms and waiting time management and the dependent variable as service delivery was viable.

Table 4.8; ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	26.850	3	8.950	137.852	.000 ^b
	Residual	5.454	84	.065		
	Total	32.304	87			

a. Dependent Variable: Service Delivery

b. Predictors: (Constant), Staff Competency, Customs Service Automation Reforms, Waiting Time Management

The beta coefficients (β) were used to determine the association and unit effect of the independent variables (staff competency, customs service automation reforms and waiting

time management) on the dependent variable (service delivery at customs). The beta coefficients were 0.571, 0.025, and 0.429 for customs service automation reforms, waiting time management, and staff competency respectively. This implied that a unit increase in customs service automation reforms with the other variables held constant resulted in a 0.571 increase in service delivery at customs. A unit increase in waiting time management with the other variables held constant resulted in a 0.025 increase in service delivery at customs.

Similarly, a unit increase in staff competency with the other variables held constant resulted in a 0.429 increase in service delivery at customs. Therefore, customs service automation reforms, waiting time management, and staff competency each has a positive influence on service delivery at customs. When ordered on level of influence to the variable with greater influence, customs service automation has greater positive influence on the service delivery at customs, followed by staff competency and finally, waiting time management. The multiple regression model therefore was as below;

$$\text{Service Delivery at Customs} = -0.047 + (0.571) \text{ Customs Service Automation Reforms} + (0.025) \text{ Waiting Time Management} + (0.429) \text{ Staff Competency}$$

Table 4.9; Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	-.047	.223		-.212	.833
1 Customs Service Automation Reforms	.571	.062	.538	9.265	.000
Waiting Time Management	.025	.070	.023	.360	.719
Staff Competency	.429	.069	.452	6.169	.000

a. Dependent Variable: Service Delivery

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The purpose of the study was to examine the effects of automation reforms on service delivery at Customs & Border Control, Kenya. The study was based on three objectives which were the influence of customs service automation reforms, influence of waiting time management, and influence of staff competency on service delivery at Customs & Border Control, Kenya.

5.1.1 Customs Service Automation Reforms

The mean scores and standard deviations of the various customs service automation metrics were used to examine the average perception and level of consensus among the respondents on the effect of automation reforms on service delivery at Customs & Border Control, Kenya. These metrics included adoption of cutting edge technology at customs, ease of technologies at customs, usefulness of the adopted technology, ease of clearing diverse goods, and ease of paying due taxes.

All the mean scores of the various customs service automation metrics were between 3.5 and 4.5 which implied that on average, the respondents tended to agree (mean scores between 3.5 and 4.5) that each metric had an effect on the service delivery at Customs & Border Control, Kenya. There was also moderate consensus (standard deviations between 0.5 to 1) among the respondents on the metrics except for ease of clearing diverse goods whose effect on the service delivery at Customs & Border Control, Kenya attracted no consensus among respondents (standard deviation greater than one). The ranking of mean scores from the highest to the lowest gave adoption of cutting edge technology at customs as the metric with highest mean among the customs service automation metrics. This implied that on average,

the respondents perceived its effect on the service delivery at Customs & Border Control, Kenya to be greater than that of the other metrics. Ease of technologies was ranked second, ease of paying due tax ranked, usefulness of the adopted technology ranked fourth, and last in rank was ease of technologies at customs.

5.1.2 Waiting Time Management

The study examined the waiting time aspects that impact on the service delivery at Customs & Border Control, Kenya. The mean scores for the metrics on waiting time management and the standard deviations were used to examine the average perception and level of consensus among the respondents on a given metric. The metrics used were the length of waiting time for goods to be cleared, the reason for waiting time before goods clearance, costs incurred while awaiting goods clearance, information given while awaiting goods clearance, and reasonable aspects of awaiting good clearance.

On average, the respondents tended to agree (mean scores between 3.5 and 4.5) that the reason for waiting time before goods clearance, costs incurred while awaiting goods clearance, information given while awaiting goods clearance, and reasonable aspects of awaiting good clearance each has an effect on the service delivery at Customs & Border Control, Kenya. On average, the respondents tended to be uncertain (mean score between 2.5 and 3.5) about the effect of the length of waiting time for goods to be cleared on the service delivery at Customs & Border Control, Kenya as its mean was 3.44. There was no consensus (standard deviation greater than 1) among the respondents on the effect of the length of waiting time for goods to be cleared and reasonable aspects of awaiting good clearance on the service delivery at Customs & Border Control, Kenya. On the other hand, there was moderate consensus (standard deviations between 0.5 and 1) among respondents that the reason for waiting time before goods clearance, costs incurred while awaiting goods clearance, and

information given while awaiting goods clearance each affects the service delivery at Customs & Border Control, Kenya.

5.1.3 Staff Competency

The study examined the average perception and level of consensus among respondents in relation to staff competency aspects that impact on service delivery at Customs & Border Control, Kenya using various metrics. In this context, the staff process knowledge, problem solving skills, attitude, customer service skills, and communication skills were examined. The staff process knowledge had a mean score of 3.30 which was between 2.5 and 3.5. This implied that the respondents on average tended to be uncertain about the effect of staff process knowledge on the service delivery at Customs & Border Control, Kenya.

The respondents on average tended to agree (mean scores between 3.5 and 4.5) that the problem solving skills and attitude of staff at Customs & Border Control, Kenya had an effect on the service delivery at Customs & Border Control, Kenya. There was no consensus (standard deviations greater than 1) among respondents on the effect of staff process knowledge, staff problem solving skills and staff attitude on the service delivery at Customs & Border Control, Kenya. On average, the respondents tended to agree and had moderate consensus (standard deviations between 0.5 and 1) that staff customer service skills as well as staff communication skills affect the service delivery at Customs & Border Control, Kenya.

5.1.4 Service Delivery Effectiveness

The study sought to examine the impact of various customer experience aspects on public service delivery effectiveness at Customs & Border Control, Kenya. These aspects included the pace of good clearance, corruption free zone at customs, fair valuation of goods for tax payment purposes, high level of communication with customers, and transparency and accountability.

All the metrics on customer service aspects had mean scores between 3.5 and 4.5 which implied that respondents tended to agree that each metric has an impact on public service delivery effectiveness at customs. There was moderate consensus among the respondents that each of the metrics had an impact on public service delivery effectiveness at customs as the standard deviations for all the metrics were between 0.5 and 1. Therefore, the respondents tended to agree that the pace of good clearance, corruption free zone at customs), and fair valuation of goods for tax payment purposes had an impact on public service delivery effectiveness at customs. Similarly, high level of communication with customers and transparency and accountability on average were perceived to have an impact on public service delivery effectiveness at customs.

5.2 Conclusion

The study concluded that customs service automation reforms, waiting time management, and staff competency each positively influences service delivery at customs. Additionally, the study concluded that customs service automation has greater influence on service delivery at customs.

5.3 Recommendation

The study recommends that the KRA management fully adopts cutting edge technology at customs with a view of automating customs service in order to improve on the service delivery at Customs Border Control, Kenya.

5.4 Suggestion for Further Studies

The study recommends for further studies a look into the factors that influence adoption of technology at Customs Border Control, Kenya.

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APPENDIX A

CONSENT STATEMENT TO RESPONDENTS

My name is Leah Mathaiya, a post graduate student at Kenya School of Revenue Administration. You have been selected as part of the study entitled ‘Effects of Automation Reforms on Service Delivery, Case study of Customs & Border Control’.

Kindly do take a few minutes to respond to the questions in the attached questionnaires. Your input will be integral in the successful completion of the research project. Your response will be treated with utmost confidentiality and will only be used for academic purposes. No financial compensation will be made for participating in this study. In case of any need for more clarification, kindly don’t hesitate to contact me.

Yours’ Sincerely,

Leah Mathaiya

APPENDIX B
EFFECT OF AUTOMATION ON SERVICE DELIVERY
CASE OF CUSTOMS & BORDER CONTROL, KENYA

QUESTIONNAIRE

Instructions: Please complete the following questionnaire appropriately.

Confidentiality: The responses you provide will be strictly confidential. No reference will be made to any individual(s) in the report of the study.

Please tick or answer appropriately for each of the Question provided.

PART A: BACKGROUND INFORMATION

- | | | |
|---|---------------|-----|
| 1) What is your gender? | Male | [] |
| | Female | [] |
| 2) How Long have you been a clearing agent? | 0-5 Years | [] |
| | 6-10 Years | [] |
| | 11-15 Years | [] |
| | Over 15 Years | [] |

PART B: CUSTOMS SERVICE AUTOMATION REFORMS

For each of the following parts, please tick where applicable to the extent to which you agree using the following Likert scale.

SA= Strongly Agree A=agree U=Uncertain D=Disagree SD=Strongly

	<i>The following customs services automation have impacted on the service delivery at customs;</i>	S A	A	U	D	S D
3)	Adoption of cutting edge technology at customs					
4)	Ease of technologies at customs					
5)	Usefulness of the adopted technology					
6)	Ease of clearing diverse goods					
7)	Ease of paying due taxes					

PART C: WAITING TIME MANAGEMENT

For each of the following parts, please tick where applicable to the extent to which you agree using the following Likert scale.

SA= Strongly Agree A=agree U=Uncertain D=Disagree SD=Strongly

	<i>The following waiting time aspects impact on the service delivery at customs;</i>	S A	A	U	D	S D
8))	The length of waiting time for goods to be cleared					
9))	The reason for waiting time before goods clearance					
10)	Costs incurred while awaiting goods clearance					
11)	Information given while awaiting goods clearance					
12)	Reasonable aspects of waiting good clearance					

PART D: STAFF COMPETENCY

For each of the following parts, please tick where applicable to the extent to which you agree using the following likert scale.

SA= Strongly Agree A=agree U=Uncertain D=Disagree SD=Strongly

	<i>The following staff competency aspects impacts on service delivery;</i>	S A	A	U	D	S D
13)	Staff process knowledge					
14)	Staff problem solving skills					
15)	Staff attitude					
16)	Staff customer service skills					
17)	Staff communication skills					

PART E: SERVICE DELIVERY EFFECTIVENESS

For each of the following parts, please tick where applicable to the extent to which you agree using the following likert scale.

SA= Strongly Agree A=agree U=Uncertain D=Disagree SD=Strongly

	<i>Customer Experience Aspects impact on the following public service delivery effectiveness at Customs ;</i>	S A	A	U	D	S D
18)	Pace of good clearance					
19)	Corruption free zone at customs					
20)	Fair valuation of goods for tax payment purposes					
21)	High level of communication with customers					
22)	Transparency and accountability					

APPENDIX C
REASEARCH TIMELINES

Work Description		2017			
		Jan	Feb	Mar	Apr
i)	Topic Considerations				
ii)	Consent Paper Development and Approval				
iii)	Proposal Development and Approval				
iv)	Proposal Defence and Amendments				
v)	Data Collection				
vi)	Data Analysis and Approval				
vii)	Project Defence and Amendments				

**APPENDIX D
RESEARCH BUDGET**

	I	Proposal Preparation	Units	Unit Cost (Ksh)	Total Cost (Ksh)
	i)	Computer	1	20,000	20,000
	ii)	Printer	1	5,000	5,000
	iii)	Printing Papers	1 Rim	500	500
	iv)	Flash Disk	1	1,200	1,200
	v)	Internet Bundles	10,000	1	10,000
		Sub Total			36,700
	II	Project Preparation			
	i)	Printing Papers	2 Rims	500	1,000
	ii)	Internet Bundles	5,000	1	5,000
		Sub Total			6,000
		TOTAL			42,700
		Contingencies			5,000
		GRAND TOTAL			47,700