

**BEHAVIOURAL OPERATIONS MANAGEMENT AND SERVICE
DELIVERY AT KENYA PORTS AUTHORITY**

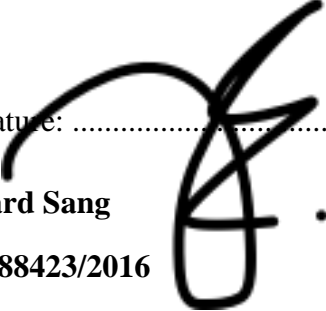
BENARD SANG

**A RESEARCH PROJECT PRESENTED IN PARTIAL FUFILMENT
OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF
BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS,
UNIVERSITY OF NAIROBI**

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DECLARATION

I hereby declare that this research paper is my novel work and has not been submitted for examination to this university or any other establishment of higher learning.

Signature: 

Benard Sang
D61/88423/2016

Date: 23/11/2021

This study was presented as an examination requirement with my endorsement as the University Supervisor.

Signature: 

Date: 26/11/2021

Dr. Peterson Magutu

Lecturer - Department of Management Science

School of Business

University of Nairobi

DEDICATION

Thanks to God almighty who has granted the grace to carry out the research to its conclusion. I sincerely thank all those who made it possible for us to complete this work. Many thanks to you all and may you receive blessings from God.

ACKNOWLEDGEMENT

May God almighty receive my thanks for granting me the grace to carry out the research to conclusion. I acknowledge genuinely my supervisor Dr. Peterson Magutu due his to advice which made it possible for me to complete this work. My appreciation is also to my family for encouragement and support.

Thank you all and God bless.

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ABBREVIATIONS AND ACRONYMS

BDM	Behavioral Decision Making
BOM	Behavioral Operational Management
DMUs	Decision Making Units
KEBS	Kenya Bureau of Standards
KPA	Kenya Ports Authority
KRA	Kenya Revenue Authority
ICD	Inland Container Depot
ICT	Information and Communication Technology
IT	Information Technology
NACOSTI	National Commission for Science, Technology and Innovation
OE	Operational effectiveness
OM	Operational Management
PFP	Partial Factor Productivity
SGR	Standard Gauge Railway
SET	Social Exchange Theory
TEUS	Tonnage Equivalent Units

CHAPTER ONE: INTRODUCTION

1.1 Background of Study

Many operations within establishments rely on human policymaking while system operations and performance are significantly affected by people (Giannoccaro, 2013). Traditional Operations Management (OM) has nonetheless generally assumed the influence of human behavior and is considered as a secondary consequence. To operate more efficiently and make better decisions, an organization together with its supply chains need to have deeper understanding of behavioral operations management (Croson, 2013). Operations management underpins the businesses simplest strategic objectives. Operational efficiency is attained through improved client satisfaction together with increasing shareholder value (Hamalainen, 2013).

The main goal of behavioral operations management is to comprehend plus improve the operating systems and procedures in an organization. As per Bendoly (2006), behavioral operation management entails using possible effects of human behavior in attaining organizational goals. However, according to Loch and Wu (2005), the effects of human behavior in behavioral operations research and its influence is suitable to demonstrate the extensiveness of the field in itself. As much as earlier explanations might have proposed that these effects are nearly entirely prejudices in the decision-making of persons, it is vital to understand that aspects like leadership, inspiration and social relations on the level of groups play a role.

1.1.1 Behavioral Operations Management

Behavioral Operational Management has in the past been identified as one of favorable developing grounds in Operations Management as per Gino and Pisano (2008). Behavioral Operational Management (BOM) entails education of human behavior and its influence on the presentations of systems operating besides encompassing studies plans and policies to improve service delivery (Loch & Wu, 2014). As a multi-disciplinary branch of OM, BOM encompasses organizational behavior, psychology and decision science which deal with effects of human behavior from operating systems' performances and analysis of strategies for improving these (Gino & Pisano 2008).

According to Franco and Hamalainen (2015), more understanding about BOM is needed since behavioural traits are pertinent when transmitting the approaches to applied use. Intervention processes that consider human aspects are needed in addition to an officially exact and lawful model (Franco & Hamalainen, 2015). One such behavior in OM is knowledge sharing which has been indicated to lead to innovation in OM and to enable superior organizational performance (Silva *et al.*, 2014). The core of behavioral operations discovers the connection between behavioral choice investigation and OM that focus on human behavior and system behavior respectively (Gino & Pisano, 2008).

1.1.2 Service Delivery

Delivery of service in business is established as the interaction amongst providers and customers. In service delivery, the provider provides a service in the form of a task or

information, while customers loses value or receives value from this interaction (Wilson, Zeithaml, Bitner & Gremler, 2015). When the human resource decisions and policies in organizations is focused on motivating and empowering workers to offer successfully undertakings that are oriented to the customer, the company may tend to deliver service that is of quality via other individuals as per Wilson *et al* (2015).

Service convenience in terms of time and effort leads to customer satisfaction (Colwell *et al.*, 2008). From this argument is where the current research incorporates these dimensions with a standpoint of defining the inclusive delivery in service index in the surveyed companies. The port of Mombasa has improved in terms of container movement from 6000 TEUS (twenty equivalent units) by double digits to more than 12000 TEUS per day due to improved infrastructure systems integration with KRA and KEBS. Introduction of railing of outbound cargos to ICD through the Standard Gauge Railway (SGR) has led to growth of the port for the last two years by 30% increase in the number of vessels docking at Mombasa port.

1.1.3 Kenya Ports Authority

The Kenya Ports Authority (KPA) being a government parastatal is tasked to handle the port in Mombasa together with other ports located in the shoreline of Kenya. The organization is among parastatals that are leading in Kenya. This Authority is a key enabler of trade conducted through the sea in the region of Central and East Africa. Kenya Ports Authority is equipped to manage an extensive array of cargos entailing dry goods like soda

ash grain, cement and fertilizers; bulk liquid that include oil that is crude together with other products from oil; packed produces that include sugar, tea and coffee; break-bulk like machinery, motor vehicles, timber, steel and iron together with cargo that is containerized (KPA, 2014).

The Authority has embarked on various activities to enhance its operational productivity such as establishment of cereals handling facility to reduce the cost of manual discharge of bulk cereals, implementation of Kilindini waterfront operations systems to interface documentation processes with Kenya Revenue Authority and establishment of a one stop centre for processing documents (KPA, 2014). Like other ports, the port of Mombasa is facing intense rivalry from other regional ports. The port of Mombasa will be the main research area because of the number of activities that it handles which constitute 98% of the entire business than the rest of the ports which handle only 2% of the cargo traffic.

1.2 Research Problem

Like any service provider, the organization has been looking for alternate ways in the quest of progress and success. With the worldwide trade environment changing quickly, additional pressure is placed on service providers to embrace behavioral operational management to attain competitive edge as per Fred (2011). Therefore, to handle changes, service suppliers have constantly been developing approaches to shield them against threats. This is done simultaneously while making the most of opportunities. Behavioral operational efficacy is problematic to realize when an enterprise runs on desperate assets. However, even amongst best performers, there exist a noteworthy number of obstacles

preventing the organization to achieve behavioral operational efficiency. Organizations that refuse to operate efficiently will quickly not be able to survive. Operating efficiently guarantees that organizations produce at lower costs. In addition, it increases client satisfaction and makes the firm stay ahead of the rivalry (Fred, 2011).

In 2014, the amount of Dry general cargo was 2,899,203 TEUs comprising of both imports and exports of containerized and conventional cargo; total amount of Dry bulk was 5,652,402 TEUs; total P.O.L was 6,331,156 TEUs; total for other bulk liquids was 905,879 TEUs; while the total exports were 3,366,266 TEUs for the year 2014 (KPA, 2014). Currently, KPA is going through inefficiencies at a high level as evidenced by the elevated heights in container congestion at the port as it requires over three days for a container to get clearance. This indicates that Port services were not reached the desired standards since operations still fall under services that are world class. In seeking to develop delivery of services, the organization's management team has drawn a customer service charter which targets to transform it to a sea port of choice which is world class by offering quality services to customers. KPA is expected to operate and offer globally competitive facilities and services at maximum efficiency (KPA, 2014).

The congestion in the port and in road networks linking the port has caused slow and poor uptake of cargo into and out of the port. This is threatening the Authority's business due to potential loss of customers to regional competitors. High cost of infrastructural development and resistance to change by employees are also major challenges faced by the

Authority. For instance, in order to enhance efficiency in terminal operations, the Authority procured hand held terminals a couple of years ago to be used to capture container data and transmit the same to the management information system. However due to resistance by employees to change, the gadgets have not been put into use as required (KPA, 2014). Intensified traffic, greater ship size and transshipment growth have also resulted in congestion and pointed to inadequate operational efficiency and reduced competitive advantage. Similarly, high container dwell time, loading point inefficiencies, threat of vessel delay surcharge, poor ship turnaround time and big ships avoiding the port all point to poor port performance (KPA, 2014).

Liu (2016) had 28 seaports in Britain benchmarked while Tongzon (2013) assessed efficacy of 16 ports in Australasia. Martines-Budria (2015) conducted a study on efficiency of Spanish ports totaling to twenty-six in number. Coto *et al.* (2000) studied the economic efficiency of Spanish seaports targeting twenty-seven ports. Turner *et al.* (2015) assessed North American seaports totaling to twenty-six. Park and De (2004) and Min and Park (2005) did a study on Korean seaports and evaluated eleven container terminals. Park and De (2004) also studied ports totaling to eleven.

As per Muriu (2012) who conducted a study of nature and resident involvement effects on decentralized service provision noted that contribution of Kenyans has had negligible effect on the regionalized service delivery in native authorities. The research also established that decision space had been restricted to a few assets and therefore the general effect could

only make a slight difference even where fully exerted. Another study by Odalonu (2012) on strategies to improve service delivery also failed to clearly point out the specific operational intervention area that affects service delivery. All the above studies have not addressed the tactical behavioral operational efficiency affecting service delivery. The study thus, aimed to fill this gap by giving an answer to the question; what is the association between behavioral operational management and delivery of service at Kenya Ports Authority?

1.3 Objectives of the study

The core study objective was to find out the association linking behavioral operational management and service delivery at Kenya Ports Authority.

Specifically, the study sought;

- i. To determine behavioral operational management initiatives being implemented by Kenya ports Authority.
- ii. To establish relationships between operations behavioral management and service delivery at Kenya ports Authority.

1.4 Value of the study

The work is helpful to KPA's administration as it affords an understanding on numerous impacts of behavioral operational management on service delivery. The policy creators may arrive in a position to know how well to integrate the industry and how efficiently to

guarantee its complete involvement. The work is also valuable to the regime in policymaking concerning service delivery to customers by KPA.

The study generated data that may be useful to several shareholders concerned on port performance and service delivery. This may allow the executives' board together with the administration of KPA to pinpoint areas of fault that require care and nurture sound planned selections to provide maximum asset worth. The research avails relevant findings on doings that can be useful to KPA and also to other States within the globe. This study encourages additional attention amongst upcoming examiners within the vibrant field of behavioral operational management and also adding on prevailing information body.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This section offers the theories that underpin the arguments of the research and reviews literature on the objectives of this research. The chapter highlights work of the literature connected to this works and ends with the suggested conceptual framework that assists in the empirical study.

2.2 Theoretical Review

Some theories are reviewed here which explain the link between behavioral operational management and service delivery. They are Decisions theory, Systems theory and Social Exchange theory which are discussed below.

2.2.1 Decisions Theory

The “The Theory of Decision Making” seminal paper published by Ward Edwards in the year 1954 marked the existence and development of Behavioral Decision Making (BDM). Decision theory entails decisions. Due to fact that the subject is not wholly unified, there exist various ways that theorize issues pertaining to decision and a number of different investigation traditions. Theory of Behavioral decision entails two interconnected aspects; normative and descriptive. The theory of normative is about recommending progresses of action that obey diligently to the choice maker's views and morals. Relating these philosophies and standards and the way in which persons include them into their choices is the purpose of this theory.

Theory of decision-making covers three main areas where each area entails a different type of decision-making. Descriptive decision theory assesses how irrational humans make choices. Whereas prescriptive decision theory gives strategies for agents to make, the best probable decisions in an undefined decision-making basis. Normative decision theory gives direction for making choices using a set of values (Hayes & Wheelwright, 2012).

It is almost impossible to have a situation that does not comprise such decision problems. This research will be limited primarily to difficulties happening in enterprises, with implications to be present in dollars of profit or revenue, cost or loss. With such problems, it may be sensible to contemplate the paramount substitute that leads in the maximization of profit or income, or lowest price or loss, on the regular, in the long term. Notwithstanding its shortcomings, it serves as a valuable guide to action in repetitive circumstances where the implications are not dire.

The maximization of expected utility is also an aspect of criterion of optimality that gives a more personal and subjective guide to action for a reliable decision-maker. The meekest decision glitches could be decided by naming the conceivable monetary implications together with the related probabilities for each alternative. In addition, it entails calculating the anticipated monetary values of all substitutes, and choosing the substitute with the highest expected monetary value as per Boyer *et al.* (2000). When the alternatives entail sequences of decisions, the determination of the ideal alternative becomes a tad more complex.

2.2.2 Systems Theory

The modern foundation for theory of systems emanated out of works of Ludwig von Bertalanffy in 1951 and Kenneth Boulding in 1956. Systems theory is about developing a systematic plus a theoretical outline for labelling overall associations of the empirical world. A comprehensive spectrum of possible accomplishments for such a framework is manifest. Prevailing resemblances in the theoretical construction of numerous works in different disciplines can be highlighted. Studies in various fields can have models developed. A conclusive but distant objective will be a structure (or system of systems) which could join and connect all disciplines together in a significant association.

Executives are required to transform the jumbled resources of men, machines and currency into a valuable and actual business. Administration is the process whereby these unconnected assets are combined into one system for unbiased triumph. For managers to accomplish the objectives of the system they need to work with individuals and physical resources. Leaders harmonize and incorporate the happenings of an organization and work of others rather than executing operations herself.

The need for the basic tasks of formation, organization, control, and messaging is not eradicated by structuring a business according to the systems concept. Though, there exists a sure change of prominence, for the purposes are performed in combination with operation of the system and not as separate units. This means that everything rotates around the system and its aim, and the purpose is carried out as a service to this end only. This fact can be explained by revising every function in terms of their association to the model of

the systems concept. Service suppliers purpose to uphold the service excellence by organizing their delivery of service procedures as service systems (SS). A SS is a group of assets together with procedures that back and drive the service relations to enable outcomes meet client expectations.

The size, intricacy, and rareness of the expertise fittings need professionals at supplier's end to back client wants. Customers need support in numerous business functions, applications and expertise. Therefore, their amount of work inclines to be multifaceted and vibrant. The definite service workers (SW) or human assets of a SS are grouped collectively to help the requests of services or work of the customer. Humans are vital to operative works in massive main stream of structure of operation by impelling the way systems work together with how they carry out. Persons who partake in systems of operating are presumed to be fully sensible or at least can be convinced to behave sensibly by majority formal prototypes analytical of operations.

2.2.3 Social Exchange theory

One well-known influential conceptual model in behavior is the Social Exchange Theory (SET). Notwithstanding its effectiveness, theoretical uncertainties within SET persist. Therefore, tests of the theory together with its presentations tend to depend on partly identified fixed philosophies. The writers discourse theoretical problems and pin point parts in requisite of extra study. By that, they remunerate preferential consideration to four matters namely the origins of the conceptual ambiguities, the customs and guidelines of

give-and-take, kind of the assets traded and lastly, associations of social exchange. Theorists concur that communal exchange entails a sequence of dealings that produce responsibilities as per Emerson (1976) even though diverse opinions of social exchange have surfaced. According to Blau (1964), within SET collaborations are typically viewed as inter-reliant plus with depending on the activities of another person SET's. As per descriptive value has been experienced in the varied fields like social power as per Molm et al. (1999), board individuality (Westphal & Zajac, 1997), networks as per Brass et al. (2004), psychological agreements (Rousseau, 1995), governance (Liden *et al.*, 1997) and administrative justice as per Konovsky (2000).

The problems facing Social exchange theory in the recent reviews are for example in the works of Coyle-Shapiro and Conway (2004) who conversed ambiguities that are theoretical and experiential wants and Cropanzano *et al.* (2001) who lamented recurrent misinterpretations of the overall SET model. Objective of the editorial is to outline the difficulties of SET to the origins. In spite of SET framework practicality, researchers consider the troubles affecting SET as systemic. Essential thoughts entailing SET are yet to sufficiently be expressed and assimilated. Therefore, tests of the framework together with its submissions tend to be by means to some extent of stated set of ideas. This dilemma presents two difficulties.

Firstly, of non-identification of SET constructs that is numerous tests of SET omit critical theoretical variables. Secondly, SET ambiguity that lead to multiple interpretation.

Consequently, the existence of any vagueness subjects testing of a model to difficulty. Social exchange theory has the prospective to offer a unitary outline for organizational behavior. Nonetheless, it is unlikely for the theory to be noticeable given the present conceptual hitches even if this potential exists. The study assessment will revert to the initial thoughts of SET's descriptive muscle. They are norms and guidelines of exchange, assets replaced, and associations that arise. Every idea named above is of significance, but every one of them in retrospect lack a clear meaning and/or has been the cause of conceptual misinterpretation.

A fundamental aspect of SET is that associations develop over time to trusting, loyal together with conjoint assurances that entail abiding by definite "rules" of interchange. As per Emerson (1976), exchange rules create a "normative meaning in the condition formulating amid or implemented by members in a relation exchange". Thus, procedures and levels of exchange are "rules" of manners for exchange. SET use in models of behavior in organizations is based on the exchange rule and the belief the examiner depends on. Majority of administration study emphasizes on prospects of reciprocity; though, a couple of other exchange guidelines have been listed in SET. Consequently, the core of this part will be rough draft values of reciprocity and state an introductory of negotiated rules together with lesser-investigated guidelines of give-and-take.

Reciprocity rules reciprocity or compensation in thoughtful, is one of the preferred give-and-take rules. Gouldner (1960) established an interdisciplinary appraisal of what was then of SET. Gouldner's Cropanzano, Mitchell / Social Exchange Theory 875 review

establishes being some vagueness the way reciprocity is defined. The chief influence of this evaluation entails listing the mannerisms of reciprocity within conversation and differentiating three kinds of reciprocity namely reciprocity as an ethical norm, interchange as a transactional array of interdependent exchanges and lastly, interchange as a folk faith.

Understanding interdependence firstly requires considering what it is not. As per Blau (1964) and Homans (1961), a party can have a minimum of three postures to another party. This include outcomes based solely on one's individual effort (independence); secondly results established solely on the other's person effort (dependence), and lastly, consequences grounded on a mixture of efforts by parties (interdependence). Whole dependence and whole independence do not infer a communal exchange per se since this involves a two direction transaction meaning there is giving something and giving something given back. Consequently, according to Molm (1994), interdependence, which entails mutual togetherness with corresponding preparations, is a describing characteristic of social-exchange. Interdependence that is reciprocal stresses reliant interactive dealings, where a deed by an individual results to a reply by another. As per Gergen (1969), if an individual supplies an advantage, the party receiving should have a response in kind. Kelley and Thibaut (1978) also assessed patterns of exchange sequences.

2.3 Behavioral Operations Management and Service Delivery

Annlyn (2017) indicated that service quality is critical for the success of a company's service. The quality of service delivered however, is reliant on the behaviors of participants in the company. Consequently, comprehending the numerous procedures that nurture

needed amenity behavior is vital. There exist researches that deal with experiences of delivery of service, study implementing a social viewpoint together with converging on rudiments like collective values plus standards have been rather sparse. Such finding is surprising and shocking given the quantity of orientation to the rank of a service philosophy.

A study by Liao and Gonzalez (2009) involved measuring and comparing the operational efficacy across top telecom service providers amongst the BRIC nations by using the DEA methodology. The study used income as output and number of workers, total assets together with capital expenditure as inputs. The model used in the study permitted evaluation of the partial factor productivity (PFP), technical together with scale competences though connecting telecom corporations across nations. Robb and Arthanari (2008) provided an article with foreseeable value meeting the offered customers together with serving their requirements; providing a sensible contracts value and items at a cost that authorizes an adequate advantage.

Differentiation, cost reduction and feedback can be realized when executives use ten areas of operations administration for actual decision making as per Heizer and Render (2006). This is referred to as operations decisions in wholesome. Making the assumption that internal structure at organizations control the implementation of diversity, it is a requirement for organizations to do developments in standpoint of utmost doings to the rudimentary or constituents' infrastructure for accomplishing those intentions in executing

plans. As per Brady and Cronin (2001), it is a vital necessity for customer satisfactions to be met. The quality of port services is attained by effectiveness, appropriateness together with security.

The procedures work undertakes a significant part as according to Gupta and Marquez (2005), a company can be prosperous operationally, the company ought to surge its output together with minimizing its expenses. Pentzaropoulos and Giokas (2000) opine that DEA can be implemented as an operative tool to yard stick to these Decision Making Units (DMUs). However, it is problematic to comprehend the viable landscape whereas associating service providers across diverse nations due to the surplus of dynamic variables emergent from the nation's specific industry surroundings.

Bosire (2018) settled on the study outcome that the use of customer driven strategies organizations improved customer loyalty and performance. Similarly, Obino (2018) revealed that operations management practices significantly influenced firm performance. Onguti (2017) while looking at service delivery and operational performance identified technology and equipment as having a significant effect on operational performance. Werunga (2016) opined that employees were able to improve performance of companies through practices related to operations management. As per Mulwa (2000), for a company to prosper, it must embrace and implement twenty-two efficient and operative production processes, monitor together with continuously develop those procedures. There have been behavioral issues like poor performance, resistance to change, low productivity which is a

result of the new restructuring that is currently taking shape at the port of Mombasa so us to improve delivery of service to the general community and make the Mombasa port the hub of East and Central Africa.

2.4 Empirical Literature

Battistoni (2013) analyzed SMEs in Italy and findings revealed operations administration modalities gave a favorable effect in organization's presentation. These have a positive link to manufacturing together with supply chain administration to execute best practices that affect profits, cost decrease and internal competence. Furthermore, he noted that size of companies does not matter in implementing operations management practices. Strong (2006) opine that tailored responsiveness plus specialized competence are two behaviours of workers that relay to marketplace presentation. A study by Liao and Chuang (2004) found that worker behaviours in the service encounter entails service presentation and sociability, punctuality, dependability, understanding together with competence are precise pointers of worker service presentation.

Farrell *et al.* (2001) noted that the usage of the name quality service implementation and specific behaviours define employee service presentation. According to Boshoff and Allen (2000), these are adaptability assurance, dependability, civility, client orientation, and recovery presentation, spontaneity teamwork, receptiveness and tangibles. As per Winsted (2000), the following behaviours lead to positive client assessments of encounters with services: authenticity, caring, apparent control, politeness, formality, sociability, promptness together with service personalization.

According to Wanjiku (2015), mobile telecommunication corporations together with other enterprises in other sectors implement management of operations policies that are superior in their particular sectors. The research established that organizations to make sure that these are leaders in assumption of mainly effective strategies to certify the corporations are lucrative with excellent produces. Kanorio (2014) did a research on total quality administration producers and operational presentation in banking industry in Kenya. It was concluded that application of quality administration systems has amplified profitability of banks, improved sales, amplified bank attractiveness together with leading the banks to acquisition of bigger marketplace share. Customer satisfaction has led to improved delivery of service in the banks by ensuring operational training that upgraded operation efficacy. This in turn reduced operation expenses and improved client retaining.

Doreen (2013) studied the association amongst quality of service and operational presentation on Kenyan tour operators. She found that despite noteworthy level of employment of numerous components of quality, corporations are not able to reach high operational presentation. However, the research provides useful information on service quality improvement and its effectiveness in improving performance in their operations. Rachilo (2013) studying internal administration of quality service and operational presentation in Kenyan commercial banks noted that numerous service events added value to operational presentation. Momanyi (2012) carried out a study on the quality service administration initiatives in Kenya's public sector. It was ascertained that ministries that

had adopted quality management initiatives realized overall improvement in areas of speed of service, quality of service and customer service and productivity.

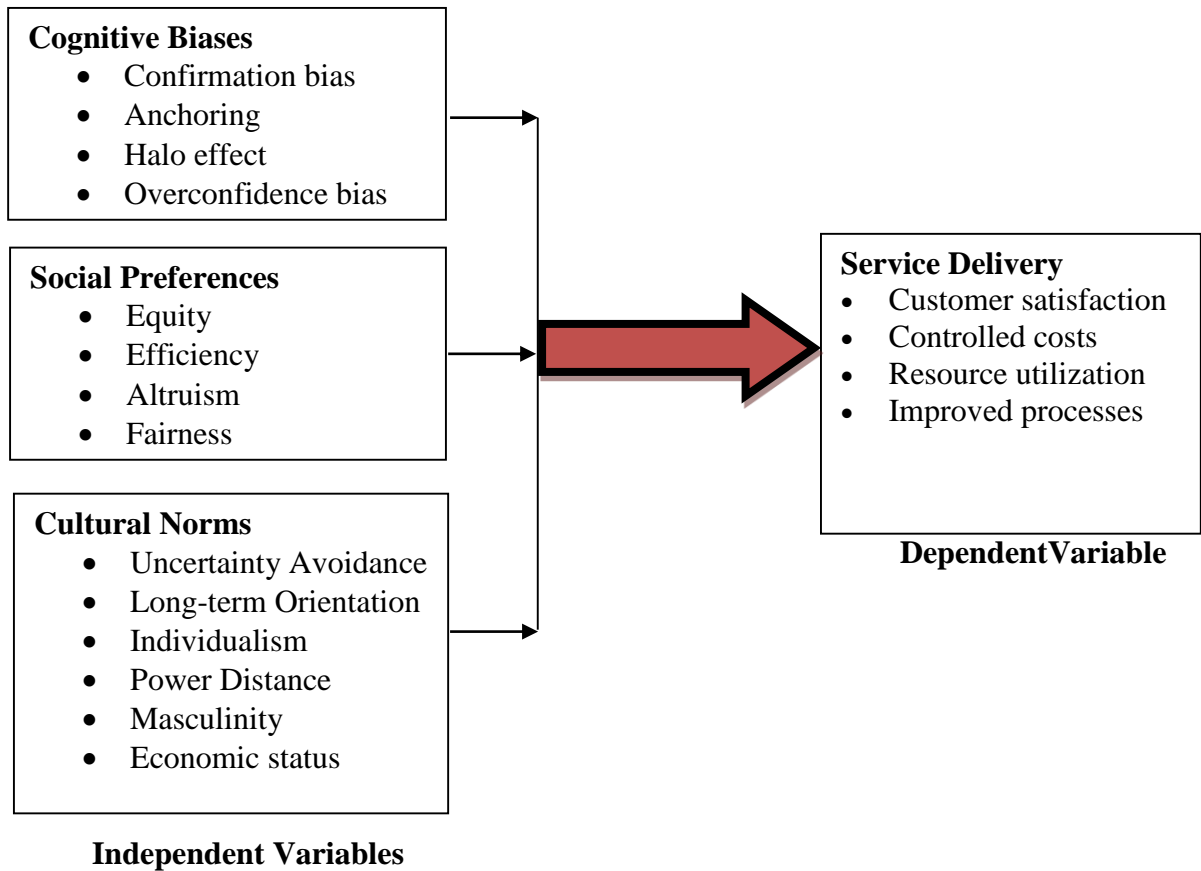
2.5 Summary of Literature and Research Gap

The behavioral operations management research is an emerging area in the academic field. Most educational papers have published special matters, and qualified cultures have detained discussions to interconnect the present growths inside this new arena. While there exist preceding books about this subject, the present study is a significant step forward in creating this genre of scholarly study. Many of the studies above were conducted outside the Kenyan environment. Some studies were general while the specific ones were not conducted on behavioral operations management. These studies were on the operational performance and did not focus on the service delivery. Further, it is worth noting that empirical studies on BOM are currently inclined to the developed world and this indicates the evidence of substantial association between BOM and service delivery in developing countries like Kenya is not conclusive.

2.6 Conceptual Framework

The conceptual outline reveals that behavioral operational management is the independent variable which is indicated by decision-making or perceptive biases, social preferences and norms that are cultural. In various ways, these affect service delivery and overall performance at Kenya Ports Authority, Nairobi Inland Container Depot.

Figure 2.1: Conceptual Framework



CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This area covers methodology adopted by this research consisting of design of the research, sampling procedure, target population, data analysis procedures and techniques of data collection.

3.2 Research Design

According to Sekaran and Bougie (2010), research design is a systematic arrangement of the measures, influences and the apparatus used in information collection and analysis to effectively achieve the aims of a research. This research adopted a research design that is descriptive in nature. A descriptive research design is used to find out current happenings as per Saunders *et al* (2009) as shown in this research is influence of BOM on delivery of service. A descriptive study's main prominence is to regulate frequency of incidence or the extent to which variables are connected. As per Sekaran and Bougie (2010), descriptive design is appropriate and was used since the expected information is quantitative.

3.3 Population of the Study

The target population for this research consisted of senior management at the Kenya Ports Authority responsible for port operations. This is because the position and role granted the capacity to answer queries aptly. They also possess relevant information on the study objectives. The sampling frame for the senior managers was obtained from the personnel register and represented the target population.

3.4 Sample Design

Sample is a finite portion drawn from the population with characteristics examined for gaining information concerning a whole entity (Cooper & Schindler, 2006). Sampling design involves the study design on how samples will be chosen for scrutiny (Kombo & Tromp, 2006). This study was a census of all the senior managers at KPA due to their

possession of relevant information. The study included 96 participants who are senior managers at KPA.

3.4 Data Collection

The research utilized secondary and primary information which was gathered using a questionnaire while the later was obtained out of respective end year reports on the port's operational productivity. This data included the volumes of cargo handling for the year 2015 and 2016. The questionnaire comprised questions which were close ended established in accordance with the objectives of the research and the relationship between behavioral operational management and service delivery at Kenya Ports Authority. The questionnaire was administered to managers with the aim to collect information from all the sources targeted. The top management are key decision makers while the middle level managers and managers of various departments are mainly involved in implementation of operations under the direction of top management. Additional service delivery and BOM secondary data was taken out of KPA's reports and corporate plans.

3.5 Data Analysis

Prior to analyzing of data, the questionnaire was ascertained for completeness with entries checked for consistency. Statistical Package for Social Sciences (SPSS) ensured analysis of the quantitative data arrive at descriptive measures namely mean, standard deviation and percentages. The researcher then interpreted the quantitative data and presented the research findings. Correlation analysis, analysis of variance and multiple regression analysis was carried out to find the statistical significance of the relationship between both

the two variable. Perceptions were analyzed on a Likert scale. The variables were represented by the following model;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Whereby;

Y is Service delivery

Behavioral operational management was measured through Cognitive Biases (X_1), Social Preferences (X_2) and Cultural Norms (X_3).

α is the constant

β_1 , β_2 and β_3 are the Beta coefficients

ε is the error term

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

3.5 Ethical Considerations

The research was dedicated to satisfy the essential ethical concerns predominantly on maintaining the confidence of the respondents during the study. This guaranteed that the data collected was private. The researcher used an opening letter from the University and a certification from the National Commission for Science, Technology and Innovation (NACOSTI) to assist in obtaining permission from Kenya Ports Authority and the related agencies to gain entrance to the buildings and deliberate the goals of the research with

respondents. The consent from every one of the respondents was also obtained through an introductory letter to ensure they all took part in the study. A promise was made to the respondents that this research was only for purposes of education.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSIONS

4.1 Introduction

The chapter illustrates study results comprising of the response rate, background information, and correlation and regression analysis of the study.

4.2 Response Rate

The 96 senior managers at the Kenya Ports Authority responded to the questionnaire since they were responsible for port operations. Out of this number, 85 questionnaires were completely filled and returned indicating a response rate of 88.5%. This was sufficient as

it is adequate for generalization and satisfactory for making conclusions as summarized in Table 4.1.

Table 4.1: Summary of Response Rate

Questionnaires	Respondents
Questionnaires distributed	96
Questionnaires returned	85
Response rate	88.5%

4.3 Background Information

The study sought to find background data for the participants. This included age, highest level of education, period worked at KPA and their current station.

4.3.1 Age Distribution of the Respondents

Results showing respondents distribution by age indicated that majority (63.5%) were aged between 41 to 50 years, followed by 30.5% who were between 51 to 60 years. The findings imply that all of the departments at KPA were being managed by experienced individuals.

Table 4.2 Age Distribution

Age	Frequency	Percent
31 – 40 years	3	5.9
41 to 50 years	28	63.5
51 to 60 years	54	30.6
Total	85	100.0

4.3.2 Educational Qualifications

Most of the respondents (45.9%) possessed undergraduate degrees while 42.4% had postgraduate degree level of education. Respondents who had an undergraduate diploma were 11.7% as shown in the table 4.3 below. The deduction is that respondents were qualified to perform in their roles and therefore appropriate to participate in the study.

Table 4.3 Educational Qualifications of Respondents

Level of education	Frequency	Percent
Undergraduate Diploma	10	11.7
Undergraduate Degree	39	45.9
Postgraduate Degree	36	42.4
Total	85	100.0

4.3.3 Duration of working at KPA

Most respondents (55.3%) were working at KPA for durations of above 12 years while 42.4% had worked for durations of between 9 to 12 years. The rest of the respondents (11.7%) had had worked at KPA for a duration of between 3 to 9 years as shown in Table 4.4 below. These results show that all the respondents were experienced and possessed insight on port operations as they had worked in KPA for more than 3 years.

Table 4.4 Work Duration of Respondents

Duration	Frequency	Percent
3 to 9 years	2	2.3
9 to 12 years	36	42.4
Above 12 years	47	55.3

Total	85	100.0
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4.4 Behavioral Operation Management Practices

The study was seeking to determine how much KPA had implemented behavioral operational management initiatives or practices. This category was divided into cognitive biases, social preferences and cultural norms from which statements were rated with a Likert scale. The responses were analyzed and the results presented in the subsequent sections.

4.4.1 Cognitive Biases

In order to ascertain the adoption of behavioral operational management practices at Kenya Ports Authority, the study needed to find the respondents' views on cognitive biases as a pointer.

Table 4.5: Cognitive Biases

Statements	Mean	Std. Deviation
The quality of service delivered in our organization is reliant on employees' behaviors	4.11	.934
The organization has nurtured the needed amenity in an effort to comprehending the employee behavior	3.96	.839
Collective values in the organization are well operationalized in the core values regarding service delivery philosophy	4.09	.701
The operational efficacy in the organization depends on income versus number of workers, total assets and capital expenditure	4.03	.735
Evaluation of the partial factor productivity, technical and scale competences connect employee behavior	3.91	.800

Foreseeable value meeting with the offered customers serves their requirements	3.85	1.014
Sensible contracts value and items provided at a cost offers an adequate advantage to the organization	3.98	.899
Operations decisions in wholesome can be realized by differentiation, cost reduction, and feedback	3.66	1.379
Execution of developments intentions by the organization are best accomplished by rudimentary and infrastructural components	3.68	1.059
The quality of port services is attained by effectiveness, appropriateness and security	4.50	.839

Kenya Ports Authority had implemented the practices of cognitive biases to a big degree as shown by statements and mean; the quality of port services is attained by effectiveness, appropriateness and security (mean=4.50); quality of service delivered in our organization is reliant on employees' behaviors (mean=4.11); collective values in the organization are well operationalized in the core values regarding service delivery philosophy (mean=4.09); and the operational efficacy in the organization depends on income versus number of workers, total assets and capital expenditure (mean=4.03). This depicts that KPA had implemented the practices of cognitive biases greatly. These findings are similar to the literature that cognitive biases affect service delivery either positively or negatively. According to Brady and Cronin (2001), quality of port services is attained by effectiveness, appropriateness together with security.

4.4.2 Social Preferences

In order to ascertain the adoption of behavioral operational management practices at Kenya Ports Authority, the study required to ascertain respondents' view in social preferences as a marker.

Table 4.6: Social Preferences

Statements	Mean	Std. Deviation
Worker behaviors of tailored responsiveness and specialized competence relay to marketplace presentation	4.13	.774
Worker behaviors in service delivery entail service presentation, sociability, punctuality, dependability, understanding and competence	4.24	.623
Specific behaviors that define employee service presentation include adaptability assurance, civility, recovery presentation, spontaneity and teamwork	4.05	.804
Employee behaviors in service presentation comprise of dependability, client orientation and receptiveness	4.00	.633
Worker behaviors leading to positive client assessments of encounters with services include authenticity, caring, formality, sociability and service personalization	4.23	.0889
Employee behaviors resulting in favorable assessments of encounters by clients with services are caring, apparent control, politeness and promptness	4.19	.783
The staff always demonstrate professional attitude and behavior in meeting requirements	4.05	.921
Employees take part in solution formulation to consider customer needs and expectations	3.99	1.044
Employees receive feedback and are encouraged to give comments	4.01	.136

Employees are able to improve performance of the organization through operations management practices	4.33	.577
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Respondents were strongly affirmative as employees are able to improve performance of the organization through operations management practices with a mean mark of 4.33. The respondents agreed also that worker behaviors in service delivery entail service presentation, sociability, punctuality, dependability, understanding and competence with a mean mark of 4.24, and that worker behaviors leading to positive client assessments of encounters with services include authenticity, caring, formality, sociability and service personalization with a mean mark of 4.23. The rest of the practices on social preferences registered high means of above 3.99 indicating the important role played by social preferences as behavioral operational management initiatives. The findings confirm the literature that social preferences are important within behavioral operational management initiatives.

4.4.3 Cultural Norms

In order to ascertain the adoption of behavioral operational management practices at Kenya Ports Authority, the study looked into establishing respondents' outlook on cultural norms.

Table 4.7: Cultural Norms

Statements	Mean	Std. Deviation
The firm has embraced delegation of responsibility in order to nurture confidence in employees	4.13	.774
Implementation of superior management of operations policies deliver lucrative and excellent results	4.53	.515

Application of quality administration systems leads to improved sales, increased attractiveness and acquisition of bigger marketplace share.	4.23	.668
Employment of components of quality of service may lead to high operational presentation	4.32	.859
Adoption of quality management initiatives leads to overall improvement through speed, quality and customer service and productivity.	4.25	.411
The quality of port services is attained by effectiveness, appropriateness and security	4.38	.436
Operational success in the organization is achieved by increased output and minimization of expenses	4.57	.321
Understanding the viable landscape of service providers is a challenge due to surplus of dynamic variables in the specific industry surroundings	3.97	.565
Use of customer driven strategies in the organization improves customer loyalty and performance	4.52	.576
Operations management practices significantly influence firm performance	4.45	.371

The researcher established that the respondents identified most of the cultural norms. From the study, it was clear that the operational success in the organization is achieved by increased output and minimization of expenses applied with a mean of 4.57. This was followed by implementation of superior management of operations policies deliver lucrative and excellent results and use of customer driven strategies in the organization improves customer loyalty and performance with means of 4.53 and 4.52.

The rest of the social norm practices as shown in table 4.7 registered means of above 3.97 indicating that the organization applies the cultural norms as part of behavioral operational

management. The findings are in agreement with the literature that cultural norms when appropriate and are applied led to increased performance in the organization.

4.5 Service Delivery

The study also sought to ascertain extent of service delivery at Kenya Ports Authority as indicated by different aspects. Responses to the statements were according to their percentage contribution on service delivery over a period of five years (2015-2019). The responses were analyzed and means from the results presented in the subsequent sections.

4.5.1 Implementation of Service Delivery Charter

In order to ascertain the extent of service delivery at Kenya Ports Authority, the study sought to establish implementation of service delivery charter as an indicator. The participants were required to make a rating of the statements according to percentage contribution on the organization’s achievements over a period of five years.

Table 4.8: Implementation of Service Delivery Charter

Statements	Mean	Std. Deviation
The organization has positioned its resources in accordance with the sequence of delivering services to its customers	4.23	.842
The organization has put in place mechanisms that have reduced delays during service delivery	4.00	.693
Setting of service standards is vital for effective delivery of port services	4.05	.701
Good performance systems enable management to monitor and to take corrective action	3.97	1.045

Service quality management enhances the proper and effective delivery of services	4.12	.922
The staff always demonstrate professional attitude and behavior in fulfilling roles	4.15	.214
The staff always demonstrate good knowledge of customer needs and requirements	4.31	.492
All employees have information on service delivery objectives	4.57	.579
Technology and equipment have a significant effect on service delivery and operational performance	4.60	.487
Improved operational performance and service delivery follows from monitoring and continuous development of efficient and operative production processes	4.01	.299

Findings indicate that ‘the technology and equipment have a significant effect on service delivery’ and ‘operational performance and all employees have information on service delivery objectives’ had the greatest impact on achievement with means of 4.60 and 4.57 respectively. All the rest of the practices within the implementation of service delivery charter registered means above 4 indicating a high contribution on KPA’s service delivery or achievements.

4.5.2 Application of Service Delivery Innovations

In order to ascertain the extent of service delivery at Kenya Ports Authority, the study sought to establish application of service delivery innovations as an indicator. Results from respondents’ rating of statements according to percentage contribution on the organization’s achievements over a period of five years are outlined.

Table 4.9: Application of Service Delivery Innovations

Statements	Mean	Std. Deviation
Service delivery points have been differentiated to achieve efficiency and flexibility	4.27	.643
As a result of automated systems, flexibility and efficiency has been enhanced	4.16	.398
A budget on research and development is necessary for planning in port activities	4.34	.217
Evaluation of port operations enables the organization to set new service delivery procedures	4.11	.653
There has been continuous improvement in the service delivery system for efficiency	4.33	.710
There is satisfaction with the facilities, equipment and other infrastructures that are used	4.52	.641
There is satisfaction with the management and employees of the organization	4.48	.998
The equipment and facilities being used are modern and always function properly	4.61	.426
There is satisfaction with the service quality by the organization	4.08	1.291
Adequate resources in the organization is a source of successful implementation of practices for service delivery	4.02	.432

The results shown in Table 4.9 indicated that application of service delivery innovations also contributed on KPA's service delivery or achievements to a high extent. The findings indicate that 'the equipment and facilities being used are modern and always function properly' and 'there is satisfaction with the facilities, equipment and other infrastructures that are used' means of 4.61 and 4.52 respectively. All the rest of the practices within the

application of service delivery innovations registered means of 4.02 and above indicating a high contribution on KPA's service delivery or achievements.

4.5.3 Resolution of Customer Complaints

In order to ascertain the extent of service delivery at Kenya Ports Authority, the study sought to establish resolution of customer complaints as an indicator. Study subjects rated the statements according to percentage contribution on the organization's achievements over a period of five years.

Table 4.10: Resolution of Customer Complaints

Statements	Mean	Std. Deviation
Services are effectively managed thus reducing customer complaints in the services offered	4.33	.432
Improvement of systems, process and training of staff minimizes operational failures	4.30	.667
Services are managed effectively leading to elimination of bottlenecks in the services	4.05	.701
The organization uses feedback information to aid in determining customer needs	4.06	.511
The organization has instituted a mechanism to understand customer expectations and meet customer needs	4.22	.813
Customer loyalty is maintained and reviewed on a regular basis to ensure attribute satisfaction	4.07	1.034
The organization welcomes and acts on customer complaints	4.43	.393
There is continuous improvement in handling of customers	4.26	.379
The organization has strong customer care practices	4.29	1.095
The organization has a return back policy and considers repeat customers	3.95	.922

On the relationship of resolution of customer complaints and contribution on KPA’s service delivery or achievements, findings indicate that to a great extent, ‘the organization welcomes and acts on customer complaints’ and ‘services are effectively managed thus reducing customer complaints in the services offered’ registered means of 4.43 and 4.33. The results in Table 4.10 show that all the rest of the practices within the resolution of customer complaints had means of 3.95 and above indicating a high contribution on KPA’s service delivery or achievements.

4.5.4 Customer Satisfaction Index

In order to ascertain the extent of service delivery at Kenya Ports Authority, the study sought to establish customer satisfaction index as an indicator. Respondent’s rating of statements according to their percentage contribution on the organization’s achievements over a period of five years.

Table 4.11: Customer Satisfaction Index

Statements	Mean	Std. Deviation
Effective performance measurements have been put in place to ensure customer satisfaction	4.10	.841
Involving personnel in formulating strategies increases customer satisfaction	4.26	.938
The organization considers customer satisfaction as the most important factor in ensuring growth in service delivery	4.35	.809
The organization reads and collectively reviews customers’ suggestions/feedback and implements as deemed appropriate	4.28	.537

Customer focus should be the driving factor towards service delivery	4.16	.703
Customer satisfaction evaluation is done periodically	4.27	.518
The organization conducts excellent service delivery at all times	4.48	1.838
The organization includes development of customer service requirements	4.04	1.295
Customer satisfaction leads to improved delivery of service through operational training leading to upgraded operation efficacy, reduced operation expenses and improved client retaining	4.42	1.059
The organization has a mechanism to enhance customer satisfaction	4.30	.893

The link between customer satisfaction index and its contribution on KPA's service delivery or achievements was looked into. Results from Table 4.11 indicate that to a great extent, 'the organization conducts excellent service delivery at all times' and 'customer satisfaction leads to improved delivery of service through operational training leading to upgraded operation efficacy, reduced operation expenses and improved client retaining as shown by means of 4.48 and 4.42. The rest of the results show that all the rest of the practices within customer satisfaction index had means of 4.04 and above indicating a high contribution on KPA's service delivery or achievements.

4.5.5 Service Delivery and Organization Achievement

The study summarized the extent of service delivery at Kenya Ports Authority as indicated in the outcomes seen in the table below.

Table 4.12: Service Delivery

Indicator	Mean	Std. Deviation
Implementation of service delivery charter	4.21	.692
Application of service delivery innovations	4.29	.558
Resolution of customer complaints	4.20	.731
Customer satisfaction index	4.27	.886

The results revealed that for a period of five years between 2015 to 2019, all the practices of service delivery at Kenya Ports Authority contributed to a high extent towards the organization's achievement. Application of service delivery innovations and customer satisfaction index ranked higher than other practices with means of 4.29 and 4.27 respectively. Implementation of service delivery charter and resolution of customer complaints also registered high means of 4.21 and 4.20 respectively.

It can be deduced that service delivery at KPA contributed to the organization's achievement to a great extent over the five year period. This implies that KPA applies service delivery innovations while paying close attention to customer satisfaction which have led to enhanced service delivery. Innovation improves service delivery by transforming the organization's internal competences. This supports findings by Wilson *et al* (2015) that motivating and empowering workers to deliver customer-oriented undertakings successfully enables the organization to deliver service quality.

A review of performance by KPA reveals improvement in containerized cargo movement (from 6000 TEUS to more than 12000 TEUS per day) due to improved infrastructure systems integration. Between 2018 and 2019, containerized cargo grew from 1.30 million TEUs to 1.42 million TEUs. Similarly, the Port throughput performance rose from 30.92 million tons in 2018 to 34.44 million tons in 2019 which is 11.4 percent growth. As shown in Table 4.13. The compounded 6.5 percent annual growth also surpassed the previous 5-year period. In the same period, there has been a 30% increase in the number of vessels docking at Mombasa port due to introduction of railing of outbound cargos to ICD through the SGR (KPA, 2020).

Table 4.13: Port Performance

Output indicators	% Change 2018-2019	Five Years Compound Annual Growth (%)
Throughput ('000' MT)	11.7%	6.5%
Container Throughput (TEUs)	8.7%	7.1%
Avg. Tonnage of cargo per gang shift	13.3%	14.0%
Avg. Tonnage of cargo per ship working day	16.2%	10.4%

Source: KPA (2020)

4.6 Inferential Statistics

The study sought to obtain inferential analysis by conducting regression analysis and correlation to discover the relationships involving operations behavioral management and service delivery at Kenya ports Authority. The results were obtained through correlation analysis, regression analysis, model summary, analysis of variance (ANOVA) and coefficients of determination.

4.7 Correlation Analysis

In order to determine the relationship between operations behavioral management and service delivery at Kenya Ports Authority, correlation was determined between the two variables as outlined below.

Table 4.14: Correlation of Service Delivery and Operations Behavioral Management

	Cognitive Biases	Social Preferences	Cultural Norms
Service delivery Pearson Correlation	.609*	.668*	.752*
Sig. (2-tailed)	.000	.000	.000
N	85	85	85

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

The correlation in all the cases is found to be significant statistically as shown with higher values of the Pearson product moment correlation. The correlation between service delivery and operations behavioral management was represented by cultural norms ($r=0.752$ or 75.2%), social preferences ($r=0.668$ or 66.8%), and cognitive biases ($r=0.609$ or 60.9%). This points to strong positive correlations between operations behavioral management and service delivery at Kenya Ports Authority.

4.8 Regression Analysis

The study sought to determine the degree of influence of operations behavioral management on service delivery through a regression analysis of the data. The regression analysis included a model summary with the coefficient of determination, and analysis of variance (ANOVA).

4.8.1 Model Goodness of Fit

Regression analysis was used to establish the relationship between operations behavioral management on service delivery. The results presented in Table 4.15 show that the value of the coefficient of determination (R Square) equals 0.843 which shows that operations behavioral management explains 84.3 percent of service delivery at KPA while 15.7 percent is clarified by other aspects outside the model or are captured in the error term.

Table 4.15: Model Goodness of Fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.918 ^a	.843	.789	.6273

a. Predictors: (Constant), Cognitive Biases, Social Preferences, Cultural Norms

These results depict that operations behavioral management is a critical component in improving service delivery at KPA.

4.8.2 Analysis of Variance

Table 4.16: Analysis of Variance

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.534	2	1.276	9.475	.0179 ^a
	Residual	9.307	9	2.327		
	Total	3.465	11			

a. Predictors: (Constant), Cognitive Biases, Social Preferences, Cultural Norms

b. Dependent Variable: Service Delivery

Analysis of Variance was calculated to know if a significant mean difference exists between independent and dependent variables. This was done at 95% confidence interval. According to results in Table 4.16, the significance value (probability value) is 0.0179 which indicates that the model was statistically significant in predicting how Cognitive Biases, Social Preferences, and Cultural Norms influence Service Delivery at Kenya Ports Authority. Therefore, Operations Behavioral Management had a significant linear relationship with Service Delivery. Further, results of the F critical was 3.23 at 5% level of significance. As the F calculated (9.475) is higher than F critical, it can be concluded that the overall model was significant.

4.8.3 Regression Coefficients of Determination

Table 4.17: Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.147	1.2235		1.615	.004
Cultural Norms	.752	.1032	.152	4.223	.015
Social Preferences	.545	.2178	.116	3.936	.029
Cognitive Biases	.538	.4158	.376	3.724	.031

a. Dependent Variable: Service Delivery

Taking the regression model: $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$

The established regression equation was:

Service Delivery = 1.147 + 0.752 Cultural Norms + 0.545 Social Preferences + 0.538 Cognitive Biases

The data shows that a unit change in Cultural Norms would lead to a 0.752 change in Service Delivery *ceteris paribus* while unit changes in Social Preferences and Cognitive Biases would lead to 0.545 and 0.538 changes in Service Delivery while holding other predictors in the model constant (*ceteris paribus*). This infers that Cultural Norms, Social Preferences and Cognitive Biases are both essential and significant determinants of Service Delivery at KPA. All the p-values are less than 0.05 indicating that the changes are significant to the model.

4.9 Discussions

The study objective was to determine the association between behavioral operational management and service delivery at Kenya Ports Authority. The survey was a fair representation of behavioral operational management practices undertaken by KPA. The study revealed from descriptive statistics that KPA has made efforts at implementing behavioral operational management practices comprising of cognitive biases, social preferences and cultural norms. These results are similar to those obtained by Annlyn (2017) who indicated that service quality is critical for the success of a company's service but relies on the behaviors of workers.

The study results indicate that over the five year period, improved service delivery at KPA has contributed to the organization's achievement through innovations and customer satisfaction. The compounded 6.5 percent annual growth also surpassed the previous 5-year period. These results are similar to those of Momanyi (2012) who found that adoption quality management initiatives realized overall improvement in areas of speed of service, quality of service and customer service and productivity. From the study results, there were statistically significant correlations between operations behavioral management and service delivery.

The study also revealed that cultural norms contributed to service delivery to a great extent followed by Social Preferences and Cognitive Biases. Operations behavioral management explained 84.3 percent of service delivery at KPA. These findings are congruent to those by Anyona (2016) who found that there was a significant effect of the operations management practices on performance. Similar results were obtained by Battistoni *et al*

(2013) who informed that practices in operations administration impacted positively on firms' competence. The above results provide impetus for port operations managers to employ the best practices to achieve superior organization's performance.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the research findings and conclusions to be drawn from the findings. The implications from the findings, recommendations and areas for further research are also presented.

5.2 Summary of Findings

From the research findings, it is observed that KPA has made efforts at implementing behavioral operational management practices comprising of cognitive biases, social preferences and cultural norms. Over the five year period, improved service delivery at KPA has contributed to the organization's achievement through innovations and customer satisfaction. The compounded 6.5 percent annual growth also surpassed the previous 5-year period. There were statistically significant correlations between operations behavioral management and service delivery. Cultural norms contributed to service delivery to a great extent followed by Social Preferences and Cognitive Biases. Regression analysis also showed that operations behavioral management explains 84.3 percent of service delivery at KPA.

5.3 Conclusions

The research concludes that operations behavioral management is a strong determinant to service delivery at Kenya ports Authority. Improved service delivery at KPA has contributed to the organization's achievement through innovations and customer satisfaction. Quality of service delivered is reliant on employees' behaviors such as sociability, competence and dependability. Similarly, employees are able to improve

performance of the organization through operations management practices. Implementation of superior management of operations policies and use of customer driven strategies are key in improving customer loyalty and performance. Application of service delivery innovations and customer satisfaction index, implementation of service delivery charter and resolution of customer complaints may also lead to improvement of service delivery.

5.4 Limitations of the Study

The limitations faced included limited time for research and of scope of research. Secondly, the busy schedules of senior managers limited interaction with them while issues of unwillingness to provide information also arose. These results are valid and would benefit stakeholders despite these challenges. Delayed responses to questionnaires were also experienced but the researcher followed up with calls and emails.

5.5 Recommendations

In order for KPA and the port of Mombasa in particular overcome intense rivalry from other regional ports, there is need to develop approaches to shield them against threats. The organization can attain behavioral operational efficacy to operate efficiently and avoid highest levels in container congestion. The use of customer service charter may also offer quality services to customers. Despite high costs, investment in infrastructural development is needed to reduce congestion and improve uptake of cargo into and out of the port. Embracing change by employees should be given priority while top management need to be committed and be supportive of operations behavioral management.

5.6 Suggestions for Further Study

From above limitations, the researcher makes suggestions that similar studies be undertaken in the coming time to ascertain the study findings and serve as a follow up on progress at KPA on operations behavioral management and service delivery.

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APPENDIX 1

RESEARCH QUESTIONNAIRE

This research questionnaire is aimed at collecting data on the relationship between behavioral operation management and service delivery at Kenya Ports Authority. Please try to offer your answers by being honest and precise. Confidentiality will feature in treating responses and making assurance on the use to be academic purposes only. Please place a tick (✓) on your choice.

Part A: Demographic Information

1. Age bracket

- (a) 21 – 30 years ()
- (b) 31 – 40 years ()
- (c) 41 to 50 years ()
- (d) 51 to 60 years ()

2. State your highest level of education

- (a) Undergraduate Diploma ()
- (b) Undergraduate Degree ()
- (c) Post Graduate ()

3. Which is your work section?.....

Part B: Behavioral Operation Management Practices

Cognitive Biases	1	2	3	4	5
1.The quality of service delivered in our organization is reliant on employees’ behaviors					
2.The organization has nurtured the needed amenity in an effort to comprehending the employee behavior					
3.Collective values in the organization are well operationalized in the core values regarding service delivery philosophy					
4.The operational efficacy in the organization depends on income versus number of workers, total assets and capital expenditure.					
5.Evaluation of the partial factor productivity, technical and scale competences connect employee behavior					
6.Foreseeable value meeting with the offered customers serves their requirements					
7. Sensible contracts value and items provided at a cost offers an adequate advantage to the organization					
8.Operations decisions in wholesome can be realized by differentiation, cost reduction, and feedback					
9.Execution of developments intentions by the organization are best accomplished by rudimentary and infrastructural components					
10.The quality of port services is attained by effectiveness, appropriateness and security.					
Social Preferences	1	2	3	4	5
1. Worker behaviours of tailored responsiveness and specialized competence relay to marketplace presentation					

2. Worker behaviours in service delivery entail service presentation, sociability, punctuality, dependability, understanding and competence					
3. Specific behaviours that define employee service presentation include adaptability assurance, civility, recovery presentation, spontaneity and teamwork					
4. Employee behaviours in service presentation comprise of dependability, client orientation and receptiveness					
5. Worker behaviours leading to positive client assessments of encounters with services include authenticity, caring, formality, sociability and service personalization					
6. Employee behaviours resulting in favourable assessments of encounters by clients with services are caring, apparent control, politeness and promptness					
7. The staff always demonstrate professional attitude and behavior in meeting requirements					
8. Employees take part in solution formulation to consider customer needs and expectations					
9. Employees receive feedback and are encouraged to give comments					
10. Employees are able to improve performance of the organization through operations management practices					
Cultural Norms	1	2	3	4	5
1. The firm has embraced delegation of responsibility in order to nurture confidence in employees					
2. Implementation of superior management of operations policies deliver lucrative and excellent results					
3. Application of quality administration systems leads to improved sales, increased attractiveness and acquisition of bigger marketplace share.					

4. Employment of components of quality of service may lead to high operational presentation					
5. Adoption of quality management initiatives leads to overall improvement through speed, quality and customer service and productivity.					
6. The quality of port services is attained by effectiveness, appropriateness and security					
7. Operational success in the organization is achieved by increased output and minimization of expenses					
8. Understanding the viable landscape of service providers is a challenge due to surplus of dynamic variables in the specific industry surroundings					
9. Use of customer driven strategies in the organization improves customer loyalty and performance					
10. Operations management practices significantly influence firm performance					

Part C: Service Delivery

Please indicate the extent that the service delivery aspects listed in the table below have contributed to your organization's service delivery over a period of five years. Use percentage as the unit of measure.

Service Delivery	Unit of Measure	5 Year Achievements				
		2015	2016	2017	2018	2019
Implementation of Service Delivery Charter						
3. Setting of service standards is vital for effective delivery of port services	%					

4. Good performance systems enable management to monitor and to take corrective action	%					
5. Service quality management enhances the proper and effective delivery of services	%					
6. The staff always demonstrate professional attitude and behavior in fulfilling roles	%					
7. The staff always demonstrate good knowledge of customer needs and requirements	%					
8. All employees have information on service delivery objectives	%					
9. Technology and equipment have a significant effect on service delivery and operational performance	%					
10. Improved operational performance and service delivery follows from monitoring and continuous development of efficient and operative production processes	%					
Application of Service Delivery Innovations						
1. Service delivery points have been differentiated to achieve efficiency and flexibility	%					
2. As a result of automated systems, flexibility and efficiency has been enhanced	%					
3. A budget on research and development is necessary for planning in port activities	%					
4. Evaluation of port operations enables the organization to set new service delivery procedures	%					
5. There has been continuous improvement in the service delivery system for efficiency	%					

6. There is satisfaction with the facilities, equipment and other infrastructures that are used	%					
7. There is satisfaction with the management and employees of the organization	%					
8. The equipment and facilities being used are modern and always function properly	%					
9. There is satisfaction with the service quality by the organization	%					
10. Adequate resources in the organization is a source of successful implementation of practices for service delivery	%					
Resolution of Customer Complaints						
1.Services are effectively managed thus reducing customer complaints in the services offered	%					
2. Improvement of systems, process and training of staff minimizes operational failures	%					
3.Services are managed effectively leading to elimination of bottlenecks in the services	%					
4. The organization uses feedback information to aid in determining customer needs	%					
5. The organization has instituted a mechanism to understand customer expectations and meet customer needs	%					
6.Customer loyalty is maintained and reviewed on a regular basis to ensure attribute satisfaction	%					

7. The organization welcomes and acts on customer complaints	%					
8. There is continuous improvement in handling of customers	%					
9. The organization has strong customer care practices	%					
10. The organization has a return back policy and considers repeat customers	%					
Customer Satisfaction Index						
1. Effective performance measurements have been put in place to ensure customer satisfaction	%					
2. Involving personnel in formulating strategies increases customer satisfaction	%					
5. Customer focus should be the driving factor towards service delivery	%					
6. Customer satisfaction evaluation is done periodically	%					
7. The organization conducts excellent service delivery at all times	%					
8. The organization includes development of customer service requirements	%					
9. Customer satisfaction leads to improved delivery of service through operational training leading to upgraded operation efficacy, reduced operation expenses and improved client retaining	%					
10. The organization has a mechanism to enhance customer satisfaction	%					