# ENTERPRISE MOBILITY AND BRING YOUR OWN DEVICE ON OPERATIONS PERFORMANCE: A CASE STUDY OF RAMCO GROUP OF COMPANIES

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# DECLARATION

This is to certify that this research project is my original work and has not been presented for a degree award in any other university or institution of higher learning. Information from other sources has been acknowledged.

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This research Project has been submitted for examination with my approval as the supervisor.

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# DEDICATION

This research study is dedicated to my Dad Mr. Josiah Mwangi (Kamotho), my Mum Mrs. Esther Wambui Mwangi and My Lovely Wife Esther Wanjiku Chege for their constant encouragement and for being patient.

# ACKNOWLDGEMENT

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# ABBREVIATIONS & ACRONYMS

| | |
|---|---|
| BYOD | Bring Your Own Device |
| BYOT | Bring Your Own Technology |
| CRM | Customer Relationship Management |
| ERP | Enterprise Resource Planning |
| EMS | Enterprise Mobility Suite |
| HRMIS | Human Resource Management Information System |
| IT | Information Technology |
| IM | Instant Messaging |
| ICT | Information & Communication Technology |
| IoT | Internet of Things |
| ISP | Internet Service Provider |
| LDAP | Lightweight Directory Services Protocol |
| MDM | Mobile Device Management |
| MAM | Mobile Application Management |
| RGOC | Ramco Group of Companies |
| RIM | Research in Motion |
| VPN | Virtual Private Networks |
| CIO | Chief Information Officer |
| CCMI | Central Caribbean marine Institute |
| UTAUT | Unified Theory of Acceptance and Use of Technology |
| TOE | Technology Organizational Environment |

# ABSTRACT

Recent years have seen an explosion of employees desire to remain connected to their organizations virtually from anywhere in the world. We have also seen proliferation of personal mobile devices in workplaces and employees desire to work from their personal mobile devices. This research study sought to explore the effect of enterprise mobility and bring your own device on organizations operational performance: a case study of RAMCO group of companies. Adoption of these technologies have challenges which this research study also sought to establish, for organization to fully take advantage. The management and control of such new technology in an organization determines its success and achieving the objective. The research study respondent comprised of either the management, departmental heads and the IT team i.e. people within the organization conversant with how and where Enterprise Mobility and Bring Your Own Device is in use within the company. The study established that the organizations within Ramco group allow Enterprise Mobility and also provide company owned mobile devices to support enterprise mobility. Enterprise Mobility thus enhanced productivity and flexibility. The study found that lack of technological skills to support Enterprise, BYOD and a proper framework affect its adoption. The study found that enterprise mobility and bring your own device contributes to enhancing operations performance of an organization. The study recommended that top level management should be sensitized on importance of Enterprise Mobility and BYOD trends to help develop an efficient platform by getting the management support. The study also recommended that IT security policies should be reviewed frequently to incorporate new technologies and also ensure they have the requisite skills to support Enterprise Mobility and BYOD to assure employees confidence on the security of both personal and corporate data.

# CHAPTER ONE

# INTRODUCTION

## 1.1. Background of the study

Technology has changed our lifestyle and also how businesses operate and businesses are managed (Osmond, 2016). Computing has gone through several evolution phases from main frame, to personal computer, laptops and now portable devices such as mobile phones and tablets. Today portable devices dominate both personal computing space and business computing space. The computing evolution phases, previously took time to transition from one phase to another due to slow pace of technological innovations. Currently the technological changes are happening very first and within a short period of time than previously predicted by Moore's Law and organizations have to keep up with this pace. Moore's law observed by Intel Founder Gordon Moore in 1950 (Santa, 2011). Due to the technological changes the world today is seen as a global village and accessibility of information is much easier. Organizations therefore have to adopt to the technological changes to capitalize on the new technologies to expand their markets niches and also remain competitive. Technology can also be used by organizations to differentiate their products to attract more customers and also to remain competitive (Jonathan, 2012).

Technological changes in business computing space sometimes have been driven by change in employees' behavior which in turn highly influences the overall organizational behavior. Earlier organizations provided computers to their employees which were mostly microcomputers and or laptops. The desire for flexibility and mobility by tele-workers and mobile workforce has led to employees carrying and using their personal mobile devices to complete their work while away from office. This concept of mobility and flexibility has been enhanced by introduction of a new concept in the work environment known as Bring Your Own Device (BYOD), a concept where an organization allows employees to connect their personal devices such as laptops, mobiles and tablets to corporate network so that they can access business and collaborative applications within the organization or remotely (Cisco, 2012).

The advancement in wireless and mobile data technology with high bandwidth has contributed immensely to enterprise mobility. The wireless and mobile data speed has

become better over time and more users becoming more accustomed to their mobile devices. Employees prefer an environment where they can move freely and still remain productive (Michael & Stephen, 2012).

The increasing trend towards remote connectivity has led to IT departments to re-strategize to counter the likelihood of exposing critical corporate data to probable security breaches. The influx of personal devices to workplaces and desire for flexibility and seamless connectivity are the main reason for enterprise mobility. The prices of mobile internet data and internet connectivity have also reduced globally and more people are connected and so are the organizations.

This research study was supported by the following two theories; the unified theory of acceptance and use of technology (UTAUT) and Technology-Organization-Environment theory. The unified theory of acceptance and use of technology is extensively used in information technology and in this research study the theory was used to explain the extent to which users or consumer of technology will accept its use. This theory helped in assessing success rate of enterprise mobility and BYOD in the organization. The theory also helps in assessing the performance expectancy and social influence on an organizational culture (Venkatesh et al, 2003).

The second theory underpinning this research paper was the theory of technology-organization-environment (TOE). The TOE framework influences technology adoption in an organization. Enterprise mobility and BYOD adoption in organizations could be guided by the theory in implementation and adoption by the users. The theory assesses the technological, organizational and environmental context. TOC framework is appropriate for technology adoption in organizations operations (Jeff, 2011).

### 1.1.1. Enterprise Mobility in Organizations

Enterprise mobility can be defined as the trend towards a shift in work habits where more employees out of the office or their work area, prefer using their mobile devices and cloud services to perform business tasks. Therefore, Enterprise Mobility refers to mobile workers, mobile devices and mobility of corporate data (techtarget, 2011).

Enterprise Mobility is present in Kenya and more Chief Information Officers (CIOs) of organizations have already embraced. Employees have also adopted and already practice and using it. The ability to access corporate data by mobile users has changed

the way organizations operations are carried out and how employees or organization staffs carry out their operational tasks. This has led to organizations effectively using their assets to generate revenue as well as maximizing output from their workforce by enhancing productivity (William, 2013).

According to transparency market research on a study done 2014, enterprise mobility market projected the global enterprise market to rise at a remarkable 24.70 % CAGR from 2015 to 2022 and if the projected figure were to hold true, the market will have a valuation of US $ 510.39 billion by 202, increasing from US $ 86.36 billion in 2014 an indication enterprise mobility is the future of enterprise way of working (*Transparency Market Research* 2015). This predicts more and more organizations will adopt enterprise mobility to enhance their operations.

Enterprise mobility is on the increase with more and more companies both small, medium and large enterprises adopting enterprise mobility. Availability of mobile devices has contributed to Enterprise Mobility greatly. Estimates suggests that in about 5 years the enterprise mobility will have grown exponentially (*Insights on governance, risk and compliance* 2013). Today people own at least one internet enabled mobile device, others owning more than 2 mobile devices, tablet or laptop. This is attributed to the availability of this devices at a much lower prices and subsidy by the service providers. This can also be attributed to the government tax exemption on mobile devices to empower their people making them affordable to common man. Unlike 3 to 5 years ago it's now easier to own/buy a smart phone or tablet a laptop or a net-book for organizations than before (GSMA 2015).

Adoption of enterprise mobility is moving much quicker than the internet did, so is technology evolving rapidly. Internet of Things (IoT), wearable tech and native capabilities of mobile devices (tablets and mobiles) are also ever increasing (*Tech.co*, 2015). Understanding this complicated landscape is becoming hard for enterprises. Managing the new technologies and changes in spite of the possibilities that comes along with them to enterprises is also a challenge for organizations. This is a challenge to organizations as they have to keep up with the changes to offer flexibility in their operations and enhance productivity

### 1.1.2. Bring Your Own Device in Organizations

Bring Your Own Device (BYOD) can be defined as an information technology policy where employees are allowed or encouraged to use their personal mobile devices such as smart phones, wearable and tablets. Employees use their mobile devices to carry out businesses related activities or access enterprise/organizational data and applications (*IBM*, 2012). BYOD has enhanced flexibility as employees can use their personal devices to access organization applications with ease.

BYOD is a new phenomenon seen as a defining trend of mobility in the recent years according to Matthew Morgan the vice president of corporate product marketing (*Citrix*, 2014). The BYOD hype is probably the single most discussed issue in technology in the past five years and has been as a result of employees push to bring their own devices (BYOD) to work and the need to access corporate data such as email, Customer Relationship Management (CRM), Enterprise Resource Planning (ERP) and other corporate applications.

A Study done by Central Caribbean Marine Institute (CCMI) back in 2012 showed that, organizations reduced their expenditure on computing devices by adopting BYOD technology in their organization by 9 % (*CCMI research,* 2012). The reasons attributed to the slow adoption of BYOD programs then were security and support of the devices enrolled. The research also showed that 22 % of the enterprises in North America were running a hybrid of corporate-liable and BYOD models, and the model was adopted to accommodate the needs of different employees' user bases. (*Xigo*, July 2012).

According to Gartner, It's expected by 2017 as enterprises BYOD program continue to become more commonplace, 38 % of companies are expected to stop providing devices to workers and companies that offer company liable programs will soon be the exception (*Gartner,* 2013)

The demand for new enterprise mobile applications is rapidly increasing according to a new research by 451 Research global survey sponsored by KonyInc carried out in 2015 (KonyInc, 2015).

### 1.1.3. Organizations Operational Performance

All organizations mainly focus on identifying ways of ensuring their processes are lean and that facilitates greater efficiency. Streamlined processes lead to an organization eliminating wastes at every stage of operations, these in turn leads to shortened timelines in service or product delivery, cost cutting and increased productivity and values (Collins barrow, 2015).

Need for improved processes within organizations has become more apparent in most organizations today. With enterprise mobility and BYOD in place in organizations, operations performance can be enhanced through improved processes since the mobile workforce is empowered. Employees are more accustomed to their personal devices and thus there is increased worker satisfaction.

Business operating activities of an organization are the core activities of generating revenue, marketing companies' product and services administering payroll and maintain its facilities (Chirantan Basu 2016).

Operational performance is a continuous improvement process. Operational performance of both the organization and employees can be measured based on the overall impact, on cost efficiency, effectiveness and ability to implement best practices. BYOD and enterprise mobility can help organizations achieve the above.

### 1.1.4. Ramco Group of Companies Operations

Ramco group of Companies is a conglomerate of over 30 companies operating within East Africa focusing in more than 6 sectors which include; Print, Hardware & building supplies, office supplies, manufacturing, services tour and travels. The group started as a hardware store in Nairobi in 1948. Some of the group companies have made inroad into the neighboring countries such as into Uganda, Tanzania and Rwanda. (Hasit, 2015).

Enterprise mobility fits well in some of the group companies' operations such as in marketing, sales, service delivery and administration. The sales team and the marketing are provided by their company with an internet enabled mobile devices to access information remotely while undertaking their duties. The Group has embraced the BYOD and enterprise mobility technologies to enhance flexibility and productivity. The member group of companies are involved in business operations

aimed at income generation which include manufacturing, marketing ready products, administration and service delivery.

Ramco group IT services are managed by an independent IT department tasked with providing IT service delivery across the group. The IT department is represented in the board of directors by the Group IT director and the IT manager oversees the operations and service delivery of IT department. The IT department has centralized IT service by consolidating the Servers and standardizing applications in use. Some of the application which they have standardized include emails where currently they have all their emails on Google Apps with a single management control panel for all the domains. There were plans to migrate from Google Apps to Microsoft office 365 which is also a public cloud platform. Other applications which have been standardized include customer relation management where they are currently using Sales force. The Enterprise Resource planning application currently using Hansa world Enterprise. There were plans to migrate to Oracle ERP (Ebiz frame) with pilot test on one company and based on their experience it will determine the future ERP (Peter, 2015).

The IT department has put in place mechanisms to ensure users and consumers of IT services stay connected from any devices and location. The IT department has a Mobile device management platform, the Google Enterprise Mobility management (EMM) a product of Google. With the plans to migrate to Microsoft Office 365 there are plans to acquire Microsoft Enterprise Mobility Suite (Peter, 2016).

## 1.2. Statement of the Problem

Enterprise mobility and Bring Your Own Device is prevalent in more organizations today. These two technologies have created a work shift in organizations that requires attention. As more and more personal devices proliferate in to organizations and employees desire to access corporate applications and data on their personal mobile devices or company owned mobile devices, there is the need to monitor and manage access for security reasons. Establish a secure Enterprise and BYOD framework that will support operations and overcome the challenges (Watch Guard, 2013). Over the last few years this trend has increased and its commonplace in the workplaces. Employees have high expectations of freedom in organization to choose the type of device to use when working, seamless delivery of content and information. As more

and more companies embrace enterprise mobility, the demand for employees' flexibility and better working ways has led to upsurge of mobile device at workplaces and more than never technology will be expected to keep up with the changes. This directly affects business operations performance (*David*, 2015).

Rahul (2012) writing on enterprise mobility, researching a new paradigm, observed that there are a number of challenges for enterprise mobility to evolve to the point of fruition and companies considered mobile solutions as key to strategic investments. In today businesses, enterprise mobility and bring your own device cannot be done away with and still remain competitive.

Earlier studies carried out have concentrated or focused on security, productivity and flexibility. Security and threats on organizational data still remains the major reason for slow adopting of enterprise mobility and BYOD. Mbalanya (2012) on his research paper about BYOD and corporate information technology security asserts that the major drawback to quick adoption of enterprise mobility & BYOD as security threats and lack of IT BYOD policy (*Mbalanya,* 2012). Wangutusi (2014) researching on 'exploration on how BYOD user behavior impacts on an organizations information security' recommends further research on group of users who should be allowed to bring their own devices. His suggestion was only a certain group of people should be allowed to access corporate data or applications on their personal devices or remotely (Wangutusi, 2014).

From these earlier studies, it was clear the focus was more on security of enterprise data and application regardless its enterprise mobility or BYOD. Therefore, there are challenges to adoption of Enterprise mobility and Bring Your Own device to a group of companies, especially when the member companies have to share IT services and enforcing policies. Disparate application for different line of business and legacy systems enterprise operations as well as mobility especially support for BYOD. Some of the applications which are not cloud ready which cannot be accessed by mobile workforce or using mobile devices. This impacts on operations resulting into productivity and flexibility of the mobile users.

Ramco group of Companies due to its unique shared IT Services presents an area of study on to explore how adoption of the new technologies would affect its operation and performance. Due to the groups complex composition of different companies

operating different line of business and with different management style, effects of adopting enterprise mobility on business operations are not straight forward. There was also a need of identifying the challenges faced during adoption and enforcing the programs to the consumer of those services.

## 1.3. Research Objective

The objectives of this research were:

i) To establish the effects of adopting enterprise mobility on business operations performance: A case study of Ramco group of companies.

ii) To establish the effects of adopting Bring Your Own Device (BYOD) on business operations: A case study of Ramco group of companies.

iii) To establish the challenges faced for a successful adoption of enterprise mobility: A case study of Ramco group of companies.

iv) To establish the challenges faced for a successful adoption of BYOD: A case study of Ramco group of companies.

## 1.4. Value of study

The research aim was to identify the effects of adopting enterprise mobility and BYOD on business operations: A case study of Ramco group of companies. The study also sought to establish the challenges faced in adopting the two technologies. Knowledge of the effects and the challenges likely to be encountered informs a basis for coming up with a good strategy for a successful implementation that will enhance operations performance. The benefits associated with adopting enterprise mobility and bring your own device include; maximum productivity, flexibility of the mobile workforce and employee satisfaction.

The Knowledge can help organizations intending to adopt either of the two technologies, in the frequency with which the policies should be reviewed, the need to protect both organization's data and privacy of personal data on BYOD mobile device. Understanding the technological landscape of an organization and the likely changes in IT and the need to monitor frequently the changes closely. IoT and wearable will soon be the game changer in enterprises and IT departments need to prepare for the same. The merger and acquisition happening with the big corporations also affects companies in the long run. A good strategy that is flexible will result in

productivity and flexibility as well as maintaining control to ensure threats and security breaches are detected and neutralized on time.

Scholars and researchers shall find this study of interest due to the gaps and recommendations that shall be produced at the end of study for further studies. Excepts of this study will be available within the university repository for access to researchers

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1. Introduction

This chapter reviews literature relating to enterprise mobility and BYOD and how the literature relates to this research paper. Enterprise mobility is a phenomenon in enterprises that allow users to access systems, applications and information remotely, while Bring Your Own Device refers to the increased proliferation of mobile devices in the work place (Athow, 2014). Enterprise Mobility is imperative in an organization since it enhancing productivity by empowering users to be mobile and at the same time to be flexible at work. BYOD as a part of IT consumerization it encourages users to use their own device to access corporate data and also accomplish work related tasks using the devices (Dean, 2015).

## 2.2. Theories on Enterprise Mobility and Bring Your Own Device

Theories underpinning this research study were the theory of acceptance and use of technology and technology organization and environment (TOE). The theories helped in explaining and understanding the enterprise mobility and BYOD adoption and use in an organization. This following subsection will looked at the two theories in details.

## 2.2.1. Theory of acceptance and use of technology

The first theory applies to this research study is unified theory of acceptance and use of technology (UTAUT). The theory aims to enlighten on the intentions of the user of an information system as well as his subsequent behavior. According to UTAUT theory there are four constructs which are; effort expectancy, facilitating conditions, social influence and performance expectancy which are direct determinant of the intention as well as behavior of the user (Venkatesh et al., 2003). The effect of the four major variables of determining usage intention as well as behavior is moderated by user 'sage, gender, voluntariness and experience. The theory was developed as result a review and combination of the eight models factors that earlier research used to explain behavior of information system usage. These models are: technology acceptance model, the theory of reasoned action, theory of planned behavior, model of PC utilization, motivational model, theory of social cognitive as well as theory of innovation diffusion (Venkatesh et al., 2003).

For BYOD, increased productivity (performance expectancy), ease of use (effort expectancy), status symbol (social influence), and low cost of mobile devices (facilitating conditions) have led to the BYOD phenomenon of employees using their devices for business-related tasks (Mbalanya, 2013).

### 2.2.2. Technology-organization-environment (TOE) framework theory

The second theory underpinning this research paper is the Technology-organization-environment (TOE) framework theory which identifies the major drivers for adoption of technology to include the characteristics of technology, firm readiness as well as the environmental conditions. Thornatzky and Fleischer developed this theory back in 1990 (Jeff, 2011). The theory describes the factors that influence technology and its likelihood. The theory applies in the case of enterprise mobility and BYOD effects on organizations operations performance where the technological context applies to both internal as well as external technologies which best fits an organization. The firm looks at the features and resources of a firm whereas the environmental context includes the size and structure of the industry. Understanding the organization and the environment when deploying a new technology is imperative to a successful adoption of that technology (Dwivedi et al. 2011).

### 2.3. Enterprise Mobility in Organizations

Mobility has been around for some time but was only limited or a reserve for a few people within the organizations. Organizations were previously able to control mobility since this was mainly done on laptops owned by organizations and controls could easily be applied. According to Bhauvik (2014) Enterprises are adopting technology at a rapid race. Enterprise Mobility creates a channel to distributing information through mobile devices. Allowing communication between employees, partners and customers irrespective of their location. This alters the way people carry out their work (Bhauvik, 2014).

According to a report carried by Trend Micro on consumerization of IT showed 56% of company's world (75 % in the US) allowed employees to use their own devices to work 63% of the polled companies had installed security software on employee owned devices (Trend Micro Consumerization Report Survey, 2012). Understanding how people interact with business operations is the key for mobility technology design to enhancing the business operations.

According Vaidya mobility and BYOD can have a profound impact on your business by optimizing your business processes across the organization and even creating new business models. The impact can be on the sales by giving the sales personnel access to systems to perform their tasks, the financial or the customer experience (Vaidya A, 2016). According to Tech Pro Research Report on BYOD Business Strategies (2014) showed that 74%, majority of the respondent said their organizations were already using or planning to use BYOD.

While many of the current and previous studies shows more and more organizations especially in the second and third world countries are embracing enterprise mobility and BYOD. There are new research that indicate that the developed countries like the US, organizations are shying away from the BYOD concept in their organizations and preferring the idea of the organizations having the responsibility of providing the mobile devices to their employees for security purposes and to retain the control the mobile devices (CompTIA, 2015).

On the contrary most of the organizations in second world and third world countries are in the phases of implementing BYOD and enhancing mobility. Most of the organizations want to tap into the benefits that's comes with enterprise mobility and BYOD. The main hindrance to their implementation being security threats and lack of proper mobility policies.

## 2.4. BYOD in Organizations

Enterprise mobility allows users to access applications and data remotely from their work place. This can be when attending to client or while on tour and need quick references from an organizations system. Mobility brings along with the ability of users to carry around their device of use at work and still perform their duties work related tasks on mobile devices. Mobility has existed since the late 90s when laptops started becoming commonplace in the workplaces. The laptop users were referred to as teleworkers then and the need to always being connected back to the infrastructure and systems become an issue that needed to be addressed (Teena, 2015).

Companies have adopted enterprise mobility and BYOD by allowing its employees to carry their own personal devices or by providing company owned mobile devices to allow users to access organizational resources such as systems and applications from outside their premises. More and more users in today workplaces prefer to carry their

personal devices to work to accomplish their work tasks. The vice is becoming commonplace. This has led to organization developing an Enterprise and adoption policy (Kamesh, 2012).

The desire for ease of mobility has led to device synchronization which ensured all devices were synchronized and consistent i.e. from the desktop, app installed to data stored. In 2011 Steve Jobs launched iCloud service for apple devices which enabled the apple products to synchronize data across their product using a single iCloud account i.e. an iPad, Macintosh PC and iPhone. This enhanced mobility since all devices were in sync (Lyche&Lytskjold, 2014).

The technology has enhanced mobility and bring your device at work since data can be accessed from any device from the cloud and from anywhere. Enterprises has to be prepared for the future as they maintain seamless connectivity and therefore device strategies to incorporate wearable and prepare in advance of the inevitable challenges of wearable and IoT technology by making the necessary adjustments to the existing Enterprise Mobility Management (EMM) solution with a thoughtful Managed Mobility Services (MMS) strategy (Calero, 2012). The convenience and efficiency of enterprise mobility to business operations requires a robust enterprise mobility strategy to support the need of organizations workforce.

## 2.5. Operational Performance

Operational Performance is defined as the degree to which an operation fulfills the five generic objectives of quality, speed, dependability, flexibility, and cost (Nigel et al, 2010). Delivering quality and quantity goods in specified time is critical for the survival of a manufacturing operation. It is important also to concentrate all efforts in the value creating processes in order to eliminate costs while maximizing throughput reliably (Arthur, 2008). According to webfinacince operations performance is the firms' performance measured against standard or prescribed indicators of effectiveness and efficiency (webFinanceInc 2016). Organization performance encompasses three areas of firm's outcomes, i.e. financial performance which looks at profits, return on investment return on assets etc. Secondly, the product market performance which looks at sales and market share and lastly the shareholder return which looks at among others the economic value added.

Ngatia (2013) defined operational performance as the processes geared at coordination and enhancement of activities and outcomes within an organization. She further concluded that efficient and effective operational performance is expected to improve an organization`s competitive advantage. The process of managing the firm's unique operations and processes resources like logistics networks, customer loyalty technology and their causal relationship is a critical success factor in creating competitive advantage and superior performance.

Indicators of efficient operational performance include: improved financial performance, lead time performance, improved responsiveness, customer loyalty, innovation, quality products, and reduction in excess inventory levels and improvements in product/process design, (Johnson and Croom, 2003). Evaluation of operational performance of organizations should utilize both financial and non-financial measures, although most organizations have not made use of a balanced framework for financial and non-financial indicators (Kaplan and Norton 1992). Mark (2006) identified order lead time as the most important operational measure. He further defined order lead time as the time that lapses between the receipt of an order and shipment of the product to the customer. He further identified other performance measures as functionality of order generation, planning, production scheduling, inventory management and quality.

Operational performance in this context is applied to describe how efficiently an organization meets the needs and wants of consumers relative to others that offer similar goods or services (Stevenson, 2011). Operational performance of a firm can be measured in many different ways. The most common approaches include financial ratios such as return on investment, return on sales, and return on equity (Barney, 1997; Richard 2000). Some firms especially the small firms with no profit history, use actual amount of revenues or the number of employees to measure their operational performance (Davidson, 1991).

Additionally, operational performance could also be termed as the ability of an enterprise to achieve such objectives as high quality products, large market share, good financial performance and use of relevant strategies to survive in the competitive environment (Koontz and Donnell, 2003). Operational Performance can be evaluated in terms of either operational or financial performances. Examples of factors that

promote operational performance include productivity, level of output, employees' performance, and customer satisfaction (Jerome, 2013). In the present business environment, the operational performance of the organization is measured using financial gains, and employee and client satisfaction. Ho (2008) argued that the effectiveness and efficiency of firm's operations affect operational performance. The quality of products and services offered by the organization in terms of fulfilling customer demands and competing in the market assists in evaluating operational performance (Delaney and Huselid, 2006). According to Sigei (2014) there are many factors that can be used to measure performance that include market and financial results, operating performance involving efficiency and effectiveness of an organization, employee performance, social responsibility and customer results e.g. customer complaints.

## 2.6. Existing Challenges of Enterprise Mobility and BYOD

Increased mobility comes with a large number of challenges since you open your infrastructure to the internet or access from the web. Mobile device and wearable are becoming more and more target point for attackers and malwares. The main challenges barring the adoption of mobility and BYOD or Enterprise mobility according to (Sitrion 2016), include mobility security for data and devices, the lack of an enterprise mobility strategy in an organization and mobile applications incompatibility.

Glen (2015) writing about enterprise mobility adoption is the unsung opportunity, identifies the common challenges facing enterprise mobility range from the lack of skills required to manage a successful enterprise and BYOD systems in an organization. He also points out to the delay of getting the right information to users at the exact time or at the time of need. Security still remains one of the major challenges with almost all the studies pointing to security.

There are new emerging challenges that organizations have to devise a way to deal with such as keeping up with technology and Legacy back end system. With firms becoming more mobile-oriented many are hitting hard wall when it comes to back-end integration and organizations should take advantage of efficiency by leveraging mobile platforms to accelerate development while reducing complexity. On the other hand, organizations try to keep up with the ever evolving mobility which is seen to be

moving quicker than internet did. IoT, wearable technologies and capabilities of mobile devices (smart phones and tablets) are ever increasing. Though creating new capabilities for enterprises, they also create a complicated landscape for the IT departments (Andy Floyd, 2015).

## 2.7. Conceptual Framework

The Conceptual Framework below illustrates the interrelationships among variables under study. In this scenario, the variables identified are the independent (explanatory) and the dependent (response) variable. An independent variable influences and determines the effect of another variable. The independent variable in this study is adoption of enterprise mobility & BYOD. Dependent variable is that factor which is observed and measured to determine the effect of the independent variable. The dependent variable is operations Performance.

**Figure 2.1: Conceptual Framework**

**Independent variable**                                    **Dependent variable**

**Adoption of Enterprise Mobility & BYOD**

- Reduced time for Data and Information access
- Reduced device for work and personal activities
- Reduced time on task execution

**Operations Performance**

- Productivity & Efficiency
- Increased Flexibility & Availability
- Empowering the mobile workforce & User satisfaction
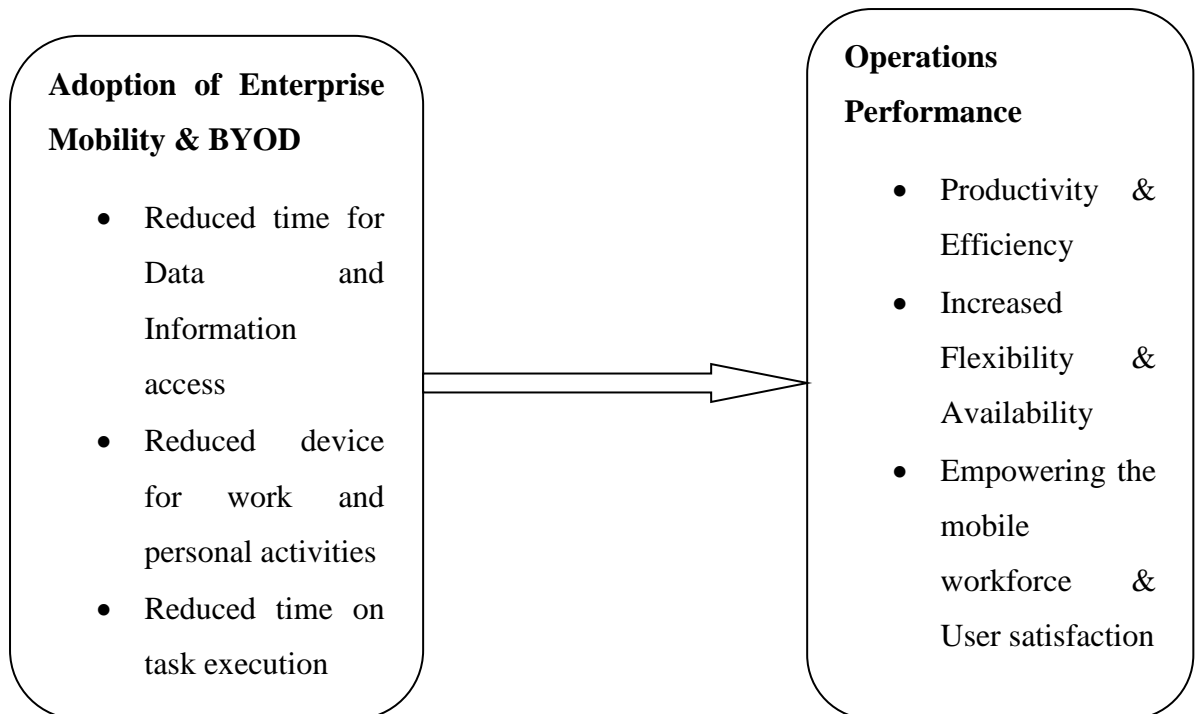
## 2.8. Summary of Literature Review

Technologies and innovations keeps on changing day in day out. As a result of this changes the enterprise mobility and BYOD landscape also changes and becomes complex especially to the team in charge of IT. Therefore, there is a need of an efficient system that can help manage the landscape i.e. a reliable Mobile Device Management system, Mobile Application Management system or an Enterprise Mobility Suite that is reliable. All researches points to a future of where employees want to access applications and corporate data from any location and also want to use their personal mobile devices to accomplish tasks. Mobile devices have also become easily due to the low and advancement in the technology behind production of mobile devices.

Organizations cannot run away from this reality and they have to be prepared for this changes and put in place strategies and measures to secure their data from being compromised. Else they have to incur cost to provide users with company owned mobile devices which also need management.

# CHAPTER THREE

# METHODOLOGY

## 3.1. Introduction

This chapter presents the methodology that was used in this research study. The methodology sort to address the research questions relating to enterprise mobility and bring your own device impacts on operations of a group of companies. The objective of the research was to address the identified research gap. The chapter highlights the method for data collection used, the target population of study, sampling size and analysis techniques that were used to facilitate this research paper with the required data during the research period.

## 3.2. Research Design

This research paper employed the descriptive research design specifically the survey method. The survey method was used as the main interest of the study is to determine the effects and factors that support that would study the data was collected from randomly from employees and the management to help in answering research question. This helped in gathering the necessary information to facilitate this research paper on the effects of enterprise mobility and BYOD on operations performance.

## 3.3. Target Population

This research study focused on the member companies of Ramco Group as the target population. Currently the Group has 30 member firms under the umbrella. The population study provided the information on operational performance and also identified the challenges associated with adoption of enterprise mobility and BYOD solution.

## 3.4. Sampling

Expert sampling was used which constituted of more specific respondents familiar with the topic of research. The research instrument used was a questionnaire. The idea behind expert sampling was to get the correct information from the right people with the knowledge of enterprise mobility and BYOD. This enquiry required people with specialized knowledge on that domain of technology.

## 3.5. Data Collection

The primary method of data collection involved was a structured questionnaire that was represented to the respondent. The questionnaire was administered through drop and pick as well as through using emails. A census was carried out on all the 30 respondent member companies of Ramco Group. For each company there was only one respondent, either from the management or departmental heads conversant with Enterprise Mobility and BYOD in their organization. The questionnaire was structured in a way that ensured information on enterprise mobility and BYOD on operations performance relating to different departments is captured and the challenges faced.

The questionnaire was divided into sections to E. The first section captured the demographic data of the respondents. Section captured the extent of adoption of Enterprise Mobility, section C captured the extent of adoption of BYOD while section D captured information related to challenges in adoption of Enterprise Mobility & BYOD. The last section captured the operations performance.

## 3.6. Data Analysis

The data collected using the identified data collection methods was put in order and structured for findings to be easily and effectively communicated. The process of data analysis involved various stages and a thorough process. Data collected was analyzed and then cleaned up before being subjected to analysis where responses were tabulated and coded. Both Qualitative and quantitative methods were used to ensure correct data is captured lives up to the expectation of this research.

Data collected was analyzed using frequencies and mean and results presented in a tabular format and charts. The study focused on the relationship between the use of enterprise mobility and BYOD and effects on operations performance of the organization. The data also was analyzed using regression; the study used multiple regressions was guided by the model specification as follows

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon.$

Where;

Y = Operation performance

$\beta_0$ = Constant Term

$\beta_1$-$\beta_2$= Beta coefficients

$X_1$= Enterprise Mobility

$X_2$= Bring Your Own Device

# CHAPTER FOUR

# DATA ANALYSIS, PRESENATION AND INTERPRETATION

## 4.1. Introduction

The data collected on enterprise mobility and bring your own device on operations performance: a case study of RAMCO group of companies was presented in this chapter. The research was conducted on sample size of 30 respondents out of which 25 respondents filled the questionnaires translating to a response rate of 83.33%. Mugenda and Mugenda (1999) opined that a response rate which is a good for study findings to be established is supposed to be 50% and above and thus this study was good.

**Table 4.1: Response Rate**

| Population | Frequency | Percent |
|-----------|-----------|---------|
| Responded | 25 | 83.33 |
| Non- responded | 5 | 16.67 |
| **Total** | **30** | **100** |

**Source: Author (2016)**

## 4.2. Demographic Information

The study sought information on various characteristics of the respondents' background which included: the department the respondents work in, the respondent's gender, age bracket, number of years in the organization and the highest level of education. This information was appropriate in testing the suitability of the respondent in giving information with regard to the enterprise mobility and bring your own device on operations performance.

### 4.2.1. Distribution of Respondents by Gender

Respondent's gender was sought from the study. The results were as shown in the table 4.2.

**Table 4.2: Distribution of Respondents by Gender**

| Gender | Frequency | Percent |
|--------|-----------|---------|
| Male | 15 | 60 |
| Female | 10 | 40 |
| **Total** | **25** | **100** |

**Source: Author (2016)**

From the findings 60% of the respondents were male while 40% were female. Majority in either the managerial or departmental heads were male.

### 4.4.2. Distribution of the Respondents Age Bracket

This section of the questionnaire sought the respondents to indicate their age bracket. The findings were as shown in the table 4.3

**Table 4.3: Distribution of the Respondents Age Bracket**

| Age | Frequency | Percent |
|-----|-----------|---------|
| Below 30 years | 3 | 12 |
| 31-40 years | 11 | 44 |
| 41-50 years | 7 | 28 |
| Above 50 years | 4 | 16 |
| **Total** | **25** | **100** |

**Source: Author (2016)**

From the findings 45% of the respondents were aged between 31-40 years, while only 10% were above 50 years. The majority age bracket comprises of people described as generation Y. these are people who have embraced technology in their day to activities.

### 4.2.3. Distribution of the Number of Years of the Respondents in the Organization

The question sought the respondents to indicate the number of years they have been in the organization. The findings were shown in the table 4.4.

**Table 4.4: Respondents Number of Years in the Organization**

| No. of Years | Frequency | Percent |
|---|---|---|
| Below 1 year | 1 | 4 |
| 1-5 years | 4 | 16 |
| 6-11 years | 10 | 40 |
| 12-17 years | 7 | 28 |
| 24 years and above | 3 | 12 |
| **Total** | **25** | **100** |

**Source: Author (2016)**

From the findings, 42% of the respondents indicated that they had worked in their organizations between 6-10 years, while only 5% indicated they had worked in the organization for less than 1 year. This depicts that the respondents had worked in the organization longer and had experience on company's operations.

### 4.2.4. Distribution of Respondents Academic Qualification

This question sought to establish respondents' highest level of education. The findings were shown in the table 4.5

**Table 4.5: Distribution of Respondents Academic Qualification**

| Level of Education | Frequency | Percent |
|---|---|---|
| Secondary | 3 | 12 |
| College | 7 | 28 |
| University | 11 | 44 |
| Post graduate | 4 | 16 |
| **Total** | **25** | **100** |

**Source: Author (2016)**

From the findings 44% of the respondents indicated had undergraduate level of education, while 12% of the respondents had secondary level. This depicts that the respondents level of education can translate to understanding operational performance in the organization.

### 4.3. The Extent of Enterprise Mobility on Operational Performance

This section presents findings on the extent of enterprise mobility and operational performance. Findings are presented in subsequent sections.

### 4.3.1. The Extent of Access of Corporate Data and Applications

The respondents were requested to indicate whether the company allows access of corporate data and applications remotely. The findings are shown in the table 4.6.

**Table 4.6: Remote Access of Corporate Data and Applications**

|       | Frequency | Percent |
|-------|-----------|---------|
| Yes   | 18        | 70      |
| No    | 8         | 30      |
| **Total** | **25**  | **100** |

**Source: Author (2016)**

From the findings 70% of the respondents indicated that their companies allowed access of corporate data and applications remotely while 30% did not allow applications or corporate data being accessed remotely. This shows that most of the companies in Ramco Group allowed access of corporate data and applications remotely.

### 4.3.2. Provision of Company Owned Mobile Devices

The respondents were requested to indicate whether organization provide company owned mobile devices to support enterprise mobility. The findings are shown in the table 4.7.

**Table 4.7: Provision of Company Owned Mobile Devices**

|       | Frequency | Percent |
|-------|-----------|---------|
| Yes   | 14        | 55      |
| No    | 11        | 45      |
| **Total** | **25**  | **100** |

**Source: Author (2016)**

From the findings 55% of the respondents indicated that the most organizations under Ramco Group provided their employees with company owned mobile devices to support enterprise mobility, while 45% did not provide their employees with company owned mobile devices. This shows that most of the organization had embraced the idea of enterprise mobility.

### 4.3.3. Access of Applications or Corporate Data

The respondents were requested to indicate how often they access applications or corporate data while outside their company to accomplish their tasks. The findings are shown in the table 4.8.

**Table 4.8: Access of Applications or Corporate Data Internally**

| Access | Frequency | Percent |
|---|---|---|
| Very rarely | 1 | 2 |
| Rarely | 1 | 3 |
| Normally | 9 | 35 |
| Frequently | 11 | 45 |
| Very frequently | 4 | 15 |
| **Total** | **25** | **100** |

**Source: Author (2016)**

From the findings 40% of the respondents indicated that they access applications or corporate data while outside their company to accomplish their tasks frequently, while only 2% indicated they very rarely access applications. This depicts that the respondents access applications or corporate data while outside their company to accomplish their tasks frequently.

### 4.3.4. The Extent of Enterprise Mobility on Operations Performances

The respondents were requested to indicate the extent of agreement on statement regarding enterprise mobility. The responses were placed on a five Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The findings were as shown in the Table 4.9. Where SA- Strongly Agree, A- Agree, N- Neutral, D- Disagree and SD- Strongly Disagree.

**Table 4.9: Enterprise Mobility and Operations Performance**

| Statements | SA % | A % | N % | D % | SD % | Mean | Std Dev. |
|---|---|---|---|---|---|---|---|
| Enterprise mobility in my company is a reserve for a few people within the organizations | 28 | 40 | 20 | 8 | 4 | 3.66 | 0.4224 |
| The Company in which I work for allows employees/staff to access application and systems remotely to remain productive | 20 | 32 | 32 | 8 | 8 | 4.2 | 0.4332 |
| Enterprise Mobility creates a channel for distributing information promptly to mobile users with remote access | 44 | 20 | 16 | 8 | 12 | 4.4 | 0.4216 |
| Enterprise mobility enhances communication between employees, partners and customers irrespective of the location | 24 | 32 | 8 | 16 | 20 | 3.87 | 0.412 |
| Enterprise mobility enhances business operations through employee flexibility | 24 | 32 | 16 | 16 | 12 | 3.72 | 0.4436 |

Source: Author (2016)

From the findings the respondents agreed that enterprise mobility creates a channel for distributing information promptly to mobile users with remote access (mean=4.40), and that enterprise mobility in my company is a reserve for a few people within the organizations (mean=3.66). This depicts that enterprise mobility creates a channel for distributing information promptly to mobile users with remote access.

## 4.4. The Extent of Bring Your Own Device and Operational Performance

This section presents findings on the extent of bring your own device and operational performance. The findings are presented in subsequent sections

### 4.4.1. Access of Corporate Data or Applications from Employee's Personal Mobile Devices

The respondents were requested to indicate whether the organization allow access of corporate data or applications from employee's personal mobile devices within the organization to accomplish tasks. The findings are shown in the table 4.10

**Table 4.10: Access to Corporate Data or Applications from Employee's Personal Mobile Devices**

|  | Frequency | Percent |
|---|---|---|
| Yes | 13 | 52 |
| No | 12 | 48 |
| **Total** | **25** | **100** |

**Source: Author (2016)**

From the findings 52% of the respondents indicated that the organization allows access of corporate data or applications from employee's personal mobile devices within the organization to accomplish tasks while 48% were of the contrary opinion. This depicts that the organization allow access of corporate data or applications from employee's personal mobile devices within the organization to accomplish tasks.

### 4.4.2. Access of Corporate Data or Applications from Employee's Personal Mobile Devices

The respondents were requested to indicate how often they access applications or corporate data on your personal device within the organization to perform work related tasks. The findings are shown in the table 4.11.

**Table 4.11: Access of Corporate Data or Applications from Employee's Personal Mobile Devices**

|                  | Frequency | Percent |
|------------------|-----------|---------|
| Very rarely      | 1         | 2       |
| Rarely           | 1         | 3       |
| Normally         | 9         | 35      |
| Frequently       | 11        | 45      |
| Very frequently  | 4         | 15      |
| **Total**        | **25**    | **100** |

**Source: Author (2016)**

From the findings, 45 % of the respondents indicated that they are allowed to access applications or corporate data from their personal mobile device within the organization to perform work related tasks frequently, while those that rarely used their mobile devices to access applications or data were 2%. This percentage depicts that the organization policy allows access of applications or corporate data by employees from their personal device within the organization to perform work related tasks.

### 4.4.3. BYOD and Operational Performance

This section sought to find out the extent BYOD contributes to operations performance. The respondents were requested to indicate the extent of agreement on statement regarding enterprise mobility and BYOD. The responses were placed on a five Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The findings were as shown in the table 4.12. Where SA- Strongly Agree, A- Agree, N- Neutral, D- Disagree and SD- Strongly Disagree.

**Table 4.12: The Extent of BYOD on Operations Performance**

| Statements | SA | A | N | D | SD | Mean | Std Dev. |
| --- | --- | --- | --- | --- | --- | --- | --- |
| | % | % | % | % | % | | |
| BYOD framework assists employees to use their mobile devices to carry out businesses related activities, access enterprise data and systems from within the company | 47 | 27 | 6 | 11 | 9 | 4.45 | 0.2353 |
| BYOD has enhanced mobility of employees within the organization through their personal devices to access organization applications and data with ease within the organization | 44 | 26 | 8 | 6 | 16 | 4.36 | 0.2776 |
| My firm is able to reduce expenditure by adoption of BYOD technology | 11 | 19 | 37 | 24 | 9 | 3.51 | 0.3685 |
| BYOD helps in optimizing business processes across the organization | 22 | 39 | 16 | 12 | 11 | 3.6 | 0.3335 |
| BYOD assists users to invent / creates new business models | 13 | 21 | 35 | 18 | 13 | 3.55 | 0.2967 |
| BYOD allows users to access applications and data through their mobile devices while at work place to accomplish work related tasks and activities and also do quick references | 43 | 26 | 16 | 12 | 3 | 4.12 | 0.2245 |

Source: Author (2016)

From the findings the respondents agreed that BYOD framework assists employees to use their mobile devices to carry out businesses related. Respondents on the other hand rank lowest that firms are able to reduce expenditure by adoption of BYOD technology (mean=3.51). This depicts BYOD framework assists employees to use

their mobile devices to carry out businesses related activities, access enterprise data and systems from within the company.

### 4.5. Enterprise Mobility and BYOD Challenges

This section presents findings on Enterprise Mobility and BYOD Challenges. The findings are presented in subsequent sections

### 4.5.1. Provisioning of Mobile Device

This question sought to find out whether the IT Department provisioned mobile devices by apply configurations to allow access of applications and systems. The findings were as shown in the table 4.13.

**Table 4.13: Provisioning of Mobile Device**

|  | Frequency | Percent |
|---|---|---|
| Yes | 14 | 55 |
| No | 11 | 45 |
| **Total** | **25** | **100** |

**Source: Author (2016)**

From the findings above, 55% of the respondents indicated that the IT Department apply configurations to their personal mobile device while 45% were of the contrary opinion. This depicts that the IT Department apply configurations to their mobile device.

### 4.5.2. Application of Restriction on Mobile Device

The respondents were kindly asked to indicate whether the IT Department applies any restrictions to their mobile device. The findings were as shown in the table 4.14

**Table 4.14: Application of Restriction on Mobile Device**

|  | Frequency | Percent |
|---|---|---|
| Yes | 16 | 65 |
| No | 9 | 35 |
| **Total** | **25** | **100** |

**Source: Author (2016)**

From the findings above, 65% of the respondents indicated that the IT Department applied restrictions to employees' personal mobile device while 35% of the respondents were of contrary opinion. The findings at 65% it can be concluded that the IT Department applies restrictions to employees' mobile device.

### 4.5.3. Enterprise Mobility Policies

The respondents were kindly asked to indicate whether their organization has enterprise mobility policies in place. The findings were as shown in the table 4.15.

**Table 4.15: Enterprise Mobility Policies**

|       | Frequency | Percent |
|-------|-----------|---------|
| Yes   | 15        | 60      |
| No    | 10        | 40      |
| **Total** | **25** | **100** |

**Source: Author (2016)**

From the findings 60% of the respondents indicated that their organization has enterprise mobility policies in place while 40% were of contrary opinion. This depicts that their organization has enterprise mobility policies in place.

### 4.5.4. Review of Enterprise Mobility Policies

The respondents were requested to indicate when the organization review the enterprise mobility policies. The findings are shown in the table 4.16.

**Table 4.16: Review of Enterprise Mobility Policies**

|                    | Frequency | Percent |
|--------------------|-----------|---------|
| Every one year     | 5         | 20      |
| Every 1-2 years    | 9         | 35      |
| Every 2-3 years    | 10        | 40      |
| Yet to be reviewed | 1         | 5       |
| **Total**          | **25**    | **100** |

**Source: Author (2016)**

From the findings 40% of the respondents indicate that the organization review the enterprise mobility policies every 2-3 years, 35% indicated every 2-3 years, 20% indicated every 1 year, while 5% indicated yet to be reviewed. This depicts that the organization review the enterprise mobility policiesevery 2-3 years.

### 4.5.5. Extent to Which Challenges Affect Adoption of Enterprise Mobility

The respondents were requested to indicate the extent to which the challenges affect adoption of Enterprise Mobility. The responses were placed on a five Likert scale ranging from 1 (no extent) to 5 (very great extent). The findings were as shown in the table 4.17. Where SA- Strongly Agree, A- Agree, N- Neutral, D- Disagree and SD- Strongly Disagree.

**Table 4.17: Challenges Affecting Adoption of Enterprise Mobility**

| Statements | SA % | A % | NS % | D % | SD % | Mean | Std Dev. |
|---|---|---|---|---|---|---|---|
| Managing the infrastructure to support enterprise mobility | 37 | 23 | 23 | 13 | 5 | 3.99 | 0.1436 |
| Managing fear of privacy infringement by employees | 26 | 37 | 16 | 12 | 9 | 3.7 | 0.2005 |
| Managing data security and threats attacks | 22 | 17 | 36 | 20 | 5 | 3.62 | 0.2098 |
| Managing rapid changes in technology | 13 | 21 | 41 | 19 | 6 | 3.59 | 0.1243 |
| Lack of technological Skills to support Enterprise Mobility Framework | 54 | 26 | 10 | 6 | 4 | 4.02 | 0.2456 |
| Rigid Organizational Culture | 21 | 41 | 14 | 11 | 13 | 3.65 | 0.3235 |
| Lack of Top Level Management Support | 59 | 27 | 4 | 7 | 3 | 4.14 | 0.1126 |

**Source: Author (2016)**

From the findings the respondents indicated to a great extent that lack of top level management support affect adoption of enterprise mobility (mean=4.14). Managing rapid changes in technology was rated to be lowest as indicated by a mean of 3.59.

This depicts that lack of top level management support affect adoption of enterprise mobility

### 4.5.6. Extent to Which Challenges Affect Adoption of BYOD

The respondents were requested to indicate the extent to which the challenges affect adoption of BYOD in the organization.  The responses were placed on a five Likert scale ranging from 1 (no extent) to 5 (very great extent). The findings were as shown in the table 4.18. Where NE- No Extent, SE- Small Extent, ME- Medium Extent, LE- Large Extent and VLE- Very Large Extent.

**Table 4.18: Challenges Affecting Adoption of BYOD**

| Statements | NE % | SE % | ME % | LE % | VLE % | Mean | Std Dev. |
|---|---|---|---|---|---|---|---|
| Managing personal mobile devices | 8 | 12 | 16 | 32 | 32 | 3.86 | 0.198 |
| Managing data Security & threats attacks | 0 | 16 | 24 | 28 | 32 | 4.12 | 0.2112 |
| Managing the rapid Changes in technology | 8 | 8 | 12 | 40% | 32 | 3.64 | 0.2905 |
| Lack of Technological Skills to support BYOD framework | 8 | 16 | 4 | 44 | 28 | 4.36 | 0.2243 |
| Managing Fear of Privacy Infringement | 0 | 24 | 28 | 20 | 28 | 3.61 | 0.3456 |
| Managing Data compliance issues | 16 | 32 | 0 | 52 | 0 | 3.75 | 0.1897 |
| Incompatibility of personal devices | 0 | 16 | 16 | 24 | 44 | 4.25 | 0.2126 |

**Source: Author (2016)**

From the findings the respondents indicated to a great extent that lack of technological skills to support BYOD framework affect its adoption (mean=4.36) and managing fear of privacy infringement (mean=3.61). This depicts that lack of technological skills to support BYOD framework affect its adoption.

### 4.5.7. Mobile Device Management Platform

The respondents were requested to indicate whether their organization has Mobile Device Management platform. The findings are shown in the table 4.19.

**Table 4.19: Mobile Device Management Platform**

| | Frequency | Percent |
|---|---|---|
| Yes | 19 | 75 |
| No | 6 | 25 |
| **Total** | **25** | **100** |

**Source: Author (2016)**

From the findings 75% of the respondents indicated that their organization has Mobile Device Management platform while 25% were of contrary opinion. This depicts that their organization has Mobile Device Management platform.

### 4.5.8. Enterprise Mobility Management platform/Enterprise Management Suite

The respondents were requested to indicate whether their organization has Enterprise Mobility Management platform/Enterprise Management Suite. The findings are shown in the table 4.20.

**Table 4.20: Enterprise Mobility Management /Enterprise Management Suite**

| | Frequency | Percent (%) |
|---|---|---|
| Yes | 21 | 84 |
| No | 4 | 16 |
| **Total** | **25** | **100** |

**Source: Author (2016)**

From the findings 95% of the respondents indicated that their organization has Enterprise Mobility Management platform/Enterprise Management Suite while 5% were of contrary opinion. This depicts that their organization has Enterprise Mobility Management platform/Enterprise Management Suite.

### 4.6. Operations Performance

This section presents findings on operational performance. The findings are presented in subsequent sections

### 4.6.1. Activities that can be accomplished through Enterprise Mobility

The respondents were requested to indicate the extent that activities can be accomplished through Enterprise Mobility. The responses were placed on a five Likert scale ranging from 1 (no extent) to 5 (very great extent). The findings were as shown in the table 4.21. Where NE- No Extent, SE- Small Extent, ME- Medium Extent, LE- Large Extent and VLE- Very Large Extent.

**Table 4.21: Activities that can be accomplished through Enterprise Mobility**

| Statements | NE % | SE % | ME % | LE % | VLE % | Mean | Std Dev. |
|---|---|---|---|---|---|---|---|
| Order Management | 4 | 12 | 20 | 44 | 20 | 4.01 | 0.4236 |
| Quote Management | 8 | 16 | 32 | 40 | 4 | 3.75 | 0.3563 |
| Calendar Management | 0 | 16 | 52 | 32 | 0 | 3.58 | 0.3432 |
| Leave request & approval | 12 | 20 | 9 | 31 | 28 | 3.68 | 0.3986 |
| Collaboration | 16 | 20 | 12 | 12 | 40 | 3.60 | 0.412 |
| Contacts Management | 0 | 12 | 28 | 28 | 32 | 3.80 | 0.3897 |
| Inventory Management | 12 | 12 | 16 | 32 | 28 | 3.88 | 0.4123 |
| Process Automation | 0 | 20 | 24 | 32 | 24 | 3.76 | 0.1364 |

**Source: Author (2016)**

From the findings the respondents indicated to a great extent that order management activities can be accomplished through enterprise mobility (mean=4.01), followed by inventory management (mean=3.88) as well as contacts management (mean=3.80). This depicts that order management activities can be accomplished through enterprise mobility.

### 4.6.2. Effects of Enterprise Mobility on Organization's Operations Performance

The study sought to establish the extent to which various ways of Enterprise Mobility affects organization's operations performance. The responses were placed on a five Likert scale ranging from 1 (no extent) to 5 (very great extent). The findings were as

shown in the table 4.22. Where NE- No Extent, SE- Small Extent, ME- Medium Extent, LE- Large Extent and VLE- Very Large Extent.

**Table 4.22: Enterprise Mobility and Organization's Operations Performance.**

| Statements | NE % | SE % | ME % | LE % | VLE % | Mean | Std Dev. |
|---|---|---|---|---|---|---|---|
| Helps Improved productivity | 15 | 5 | 10 | 24 | 46 | 4.18 | 0.2234 |
| Improves access to information & data from any location | 5 | 10 | 5 | 24 | 56 | 4.45 | 0.2145 |
| Helps in improving decision making | 3 | 4 | 36 | 41 | 16 | 3.89 | 0.3324 |
| Enhances user satisfaction | 12 | 20 | 9 | 31 | 28 | 3.62 | 0.3345 |
| Improves the response time to requests. | 16 | 21 | 17 | 14 | 32 | 3.66 | 0.2678 |
| Improves collaboration between users and external clients | 11 | 12 | 26 | 23 | 28 | 3.78 | 0.289 |

**Source: Author (2016)**

From the findings the respondents indicated to a great extent that enterprise mobility improves access to information & data from any location (mean=4.45), followed by improved productivity (mean=4.12), as well as improving decision making (mean=3.89). This depicts that enterprise mobility has an impact on operations performance where it improves access to information & data as well as improving firm productivity.

## 4.7. Inferential Statistics

The study further applied multiple regressions to determine the predictive power of the enterprise mobility and bring your own device on operations performance

### 4.7.1 Regression Analysis

The researcher conducted a multiple regression analysis so as to test relationship among variables (independent) on the enterprise mobility and bring your own device on operations performance.

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (operations performance) that is explained by the two independent variables (enterprise mobility and Bring Your Own Device (BYOD)).

**Model Summary**

**Table 4.23: Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-----|----------|-------------------|----------------------------|
| 1 | 0.797 | 0.635 | 0.592 | 0.043 |

**Source: Author (2016)**

The two independent variables that were studied explain only 63.5% of the operations performance as represented by the $R^2$. This therefore means that other factors not studied in this research contribute 36.5% of the operations performance in RAMCO group of companies. Therefore, further research should be conducted to investigate the other factors affecting operations performance in RAMCO group of companies.

**ANOVA Results**

**Table 4.24: ANOVA of the Regression**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|-------|-------|
| 1 | Regression | 44.096 | 2 | 22.048 | 9.475 | .0031 |
| | Residual | 51.194 | 22 | 2.327 | | |
| | **Total** | **95.29** | **24** | | | |

**Source: Author (2016)**

The significance value (α) is 0.031 which is less than 0.05 thus the model is statistically significance in predicting how the enterprise mobility and bring your own device affect operations performance.

**Table 4.25: Coefficient of Determination**

| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|---|---|---|---|---|---|
| | B | Std. Error | Beta | | |
| 1  (Constant) | 1.127 | 0.2235 | | 5.0425 | 0.000 |
| enterprise mobility | 0.652 | 0.1032 | 0.1032 | 6.3178 | .000 |
| BYOD | 0.587 | 0.2130 | 0.1425 | 2.7559 | .006 |

**Source: Author (2016)**

Multiple regression analysis was conducted as to determine the effect of enterprise mobility and bring your own device on operations performance. As per the SPSS generated table above, regression equation

$(Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon)$ becomes:

$(Y = 1.127 + 0.652 X_1 + 0.587 X_2 + \varepsilon)$

According to the regression equation established, taking all factors into account (enterprise mobility and bring your own device) constant at zero, the operations performance will be 1.127. The data findings analyzed also showed that taking all other independent variables at zero, a unit increase in enterprise mobility will lead to a 0.652 increase in the operations performance; and a unit increase in BYOD will lead to a 0.587 increase in the operations performance. This inferred that enterprise mobility contributed the most to operations performance compared to BYOD. At 5% level of significance and 95% level of confidence, enterprise mobility and bring your own device were all significant.

## 4.8. Discussion of Findings

The study found that the companies allows access of corporate data and applications remotely. Also the study established that the organization provide company owned mobile devices to support enterprise mobility. Additionally, the study established that the respondents access applications or corporate data while outside their company to accomplish their tasks frequently. Further the study found that enterprise mobility creates a channel for distributing information promptly to mobile users with remote access. This agrees with a study by Bhauvik, (2014), who stated that enterprise Mobility creates a channel to distributing information through mobile devices. Allowing communication between employees, partners and customers irrespective of their location. This alter the way people carry out their work

The study also established that the respondents' access applications or corporate data on their personal device within the organization to perform work related tasks. The study further established that BYOD framework assisted the employees to use their mobile devices to carry out businesses related activities, access enterprise data and systems within the company. This agrees with a study by Kamesh, (2012), who stated that, by an organization allowing its employees to bring their own personal devices or by providing company owned mobile devices and allowing users to access organizational resources such as systems and applications will assist the employees in enhancing their efficiency. More and more users in today workplaces prefer to carry their personal devices to work to accomplish their work tasks.

The study found that the IT Department provision and apply restrictions to mobile devices to enhance security as well as protect corporate data. The study further found that the organization has enterprise mobility policies in place. The study found that the organization review the enterprise mobility policies every 1-2 years. The study established that lack of top level management support affect adoption of enterprise mobility. This agrees with a study by Sitrion (2016), who stated that lack of top level management support to users at the exact time or at the time of need may deter the adoption of the enterprise mobility. Also Security still remains one of the major challenges with almost all the studies pointing to security.

The study found that lack of technological skills to support BYOD framework affect its adoption. This agrees with a study done by Glen (2015) which stated that

enterprise mobility adoption is the unsung opportunity and identified the common challenges facing enterprise mobility ranged from the lack of skills required to manage a successful enterprise and BYOD systems in an organization. The study also established that the organization has Mobile Device Management platform. Additionally, the study established that the organization has Enterprise Mobility Management platform/Enterprise Management Suite to help enforce policies.

The study found that Enterprise Mobility and BYOD technologies assisted employees in accomplishing activities such as processing orders, creating quote, processing leave request and approval. The study also established that the enterprise mobility improves access to information & data timely and promptly. This agrees with a study by Teena, (2015), who stated that enterprise mobility allows users to access applications and data while outside their work place whether attending to client or while on tour and need quick references from or to an organizations system.

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

## 5.1. Introduction

This chapter presents summary, conclusion and recommendations on enterprise mobility and bring your own device on operations performance: a case study of RAMCO group of companies.

## 5.2. Summary

The study found that the companies allows access of corporate data and applications remotely. Also the study established that the organization provide company owned mobile devices to support enterprise mobility. Additionally, the study established that the respondents access applications or corporate data while outside their company to accomplish their work related tasks frequently. Further the study found that enterprise mobility creates a channel for distributing information promptly to mobile users with remote access.

The study found that organization allows access of corporate data or applications from employee's personal mobile devices within the organization to accomplish tasks. The study also established that the respondents' access applications or corporate data on their personal device within the organization to perform work related tasks. The study further established that BYOD framework assists employees to use their mobile devices to carry out businesses related activities, access corporate data and systems from within the company.

The study found that the IT Department apply configurations to their mobile device. The study also established that IT Department apply restrictions to their mobile device. The study further found that the organization has enterprise mobility policies in place. The study found that the organization review the enterprise mobility policies every 2-3 years. The study established that lack of top level management support affect adoption of enterprise mobility.

The study found that lack of technological skills to support BYOD framework affect its adoption. The study also established that the organization has Mobile Device Management platform. Additionally, the study established that the organization has Enterprise Mobility Management platform/Enterprise Management Suite.

The study found that employees can accomplish many activities through Enterprise mobility. The study also established that the enterprise mobility improves access to information & data from any location. The study found that enterprise mobility contributes the most to operations performance. At 5% level of significance and 95% level of confidence, enterprise mobility and bring your own device were all significant, on the effect of enterprise mobility and bring your own device on operations performance: a case study of RAMCO group of companies.

## 5.3. Conclusion

The study concluded that the company allows access of corporate data and applications remotely. Also the study concluded that the organization provide company owned mobile devices to support enterprise mobility. Additionally, the study concluded that the respondents access applications or corporate data while outside their company to accomplish their tasks frequently. Further the study concluded that enterprise mobility creates a channel for distributing information promptly to mobile users with remote access. These allow users to be productive and flexible at work.

The study concluded that organization allows access of corporate data or applications from employee's personal mobile devices within the organization to accomplish tasks. The study also concluded that the respondents' access applications or corporate data on their personal device within the organization to perform work related tasks. The study further concluded that BYOD framework assists employees to use their mobile devices to carry out businesses related activities, access enterprise data and systems from within the company.

The study concluded that lack of technological skills to support BYOD framework affect its adoption. The study also concluded that the organization has Mobile Device Management platform. Additionally, the study concluded that the organization has Enterprise Mobility Management platform/Enterprise Management Suite. The study concluded that activities can be accomplished through Enterprise mobility. The study also concluded that the enterprise mobility improves access to information & data from any location.

**5.4. Recommendations**

The study made the following recommendations:

1. BYOD and Enterprise Mobility policies should be reviewed regularly to ensure they reflect the new changes in enterprise Information Technology landscape. This assures the management and users, security of the organization data and application.

2. Training and awareness programs should be developed to equip the IT department with the skills required to support new technologies as well as to enlighten employees on importance of Enterprise Mobility and BYOD.

**5.5. Suggestions for Further Research**

The studies focused mainly on the effect of enterprise mobility and bring your own device on operations performance: a case study of RAMCO group of companies. A similar study could be undertaken on proliferation of wearable such as smart watches and the preparedness of organizations to handles Internet of Things (IoT). The two technologies are increasing in organizations and their effects need to be studied on performance of an organization.

# REFERENCES

Andy F. (2015).Why are wearables the future for businesses: Head communication and content at b60.

Arthur, M. (2010). Competing through operations and supply: The role of classic and extended resource-based advantage. *International journal of operations & production management*, *30*(10), 1032-1058.

Barney, J. (1997). Firm resource and sustained competitive advantage. *Journal of management.* Vol.17, No.1, pp. 99-120.

Citrix, Vanson B. (2012), Mobility in business. Retrieved from https://www.citrix.com/content/dam/citrix/en_us/documents/news/citrix-mobility-in-business-report.pdf

Communications of the ACM Gartner (2012) bring your own device: New opportunities, new challenges.

Croom, S., & Johnston, R. (2003). E-service: enhancing internal customer service through e-procurement. *International Journal of Service Industry Management*, *14*(5), 539-555.

Daniel K (2014). *BYOD sitrion style.* Retrieved on Aug 23 from http://www.sitrion.com/blog/byod-sitrion-style

Davidson, P. (1991). Continued entrepreneurship: Ability, need, and opportunity as determinants of small firm growth. *Journal of business venturing*.Vol.6, pp. 405- 429.

Dedeche, A., Liu, F., Le, M., &Lajami, S. (2013). Emergent BYOD security challenges and mitigation strategy.

Delaney, J.T. & Huselid, M.A. (2006). 'The impact of human resource management practices on performance in for-profit and nonprofit organizations', *Academy of Management Journal,* 39, 949–969

Dell and Intel. (2011). The evolving workforce. Report. http://i.dell.com/sites/content/shared-content/campaigns/en/Documents/Report2_The_Workforce_Perspective_Global.pdf

Dwivedi, Y. K., Wade, M. R., &Schneberger, S. L. (Eds.). (2011). *Information systems theory: Explaining and predicting our digital society* (Vol. 1). Springer science & business media.


Eddy, N. (2013). Businesses must adapt to permanent BYOD presence: Ovum.


Forrester (2012) market overview: *Cloud-hosted mobile device management solutions and managed services*.
https://www.forrester.com/report/Market+Overview+CloudHosted+Mobile+Device+Management+Solutions+And+Managed+Services/-/E-RES60987


Gartner (2012) Media tablets and beyond: *The impact of mobile devices on enterprise management.*Retrievedhttps://www.gartner.com/doc/1985016/enterprise-mobility-impact-it


Gartner (2012), Checklist for Determining Enterprise Readiness to Support employee-owned devices. Retrieved http://www.gartner.com/id=2053015


Gartner (2012), *Creating a bring your own device (BYOD) policy*. Retrieved from http://www.gartner.com/id=1983515


Good Technology (2012) *Bring Your Own Devices best practices guide*.


GSMA (2015). *Digital inclusion and mobile sector taxation report*.


Hasit P. (2016). Information technology director, Ramco group of Companies


Ho, J. (2008). 5S use in manufacturing plants: contextual factors and impact on operating performance. *International journal of quality & reliability management*, *27*(2), 217-230.


Jerome, N. (2013). Impact of sustainable human resource management and organizational performance. *International journal of Asian social sciences,* 3(6), 1287-1292.


Johnson, R. &Croom, S. (2003), "E-service: enhancing internal customer service through e-procurement", *International Journal of Service Industry Management,* Vol. 14 No. 5, pp. 539-55.

Kamau W.T, (2013), *The BYOD Phenomena: Balancing productivity and corporate data security*

Kamesh P. (2012, *The what, why, who and how of enterprise mobility adoption.* Senior Product Manager Dell Inc.

Kaplan, R. S., & Norton, D. P. (1992). Transforming the balanced scorecard from performance measurement to strategic management: Part I. *Accounting horizons*, *15*(1), 87-104.

Kerravala, Z. (2012). Bring-your-own-device requires new network strategies. *Cell*, *301*, 775-7447.

Koontz, H. & Donnell, C. (2003). Introduction to management. McGraw-Hill Inc., New York

Leong, K. B. (2013). How to fit BYOD into an enterprise mobility strategy?

Littler Mendelson (2012) *The "Bring Your Own Device" to work movement: Engineering practical employment and labor law compliance solutions*.

Lyche, F. B., &Lytskjold, J. H. (2014). Improving security Solutions in modern Smartphones.

Maas360 (2012) The Ten Commandments of BYOD. Retrieved Jul 2016 from https://www.maas360.com/lp/eb-ten-commandments/

Mark (2006). An empirical study of operational performance parity following enterprise system deployment.

Matt H. (2015). *The Bring your Own Device fad is fading.* Retrieved Aug 2016 from: http://www.computerworld.com/article/2948470/byod/the-bring-your-own-device-fad-is-fading.html

Mbalanya M.E, (2013), Bring your own device and corporate information technology security.

Miller, K. W., Voas, J., &Hurlburt, G. F. (2012). BYOD: Security and privacy considerations. IT Professional.

Mugenda,A. & Mugenda, O. (2003) Research Methods: Quantitative and Qualitative Approaches. Nairobi: African Centre for Technology Studies (ACTS).

Network World Asia, 12-14. Mansfield-Devine, S. (2012). I*nterview: BYOD and the enterprise network. Computer Fraud & Security*.

Ngatia, C. W. (2013). *Supply chain management practices and performance of Kenya tea development agency managed factories* (Doctoral dissertation, University of Nairobi).

Nigel, N., Chambers, S., & Johnston, R. (2010). *Operations management*. Pearson education.

NIST (2012) *Guidelines for managing and securing mobile devices in the Enterprise*. Natl. Inst. Stand. Retrieved Jun 2016 from http://www.nist.gov/manuscript-publication-search.cfm?pub_id=913427

Osman, H. (2013). CIOs in Asia-Pacific are embracing BYOD. Computerworld Philippines.

Peter W. (2016), Enterprise Systems Engineer, Ramco Group

Richard, O.C. (2000). Racial diversity, business strategy and firm performance: A resource-based view. *Academy of Management Journal.* Vol.43, No2, pp.164-177

Robert B. (2015); Mobility and BYOD reshapes business operations

Sigei, C. (2014). A total quality management and performance of multinational pharmaceutical firms in Nairobi*, Kenya.*A Research Project.

Stevenson, W.J. (2011). *Introduction to Operations Management.* McGraw Hill 11th Ed.

Teena M. (2015), *74 percent using or adopting BYOD*. Retrieved on Sep 12 from http://www.zdnet.com/article/research-74-percent-using-or-adopting-byod/

Trend Micro (2012) BYOD and the consumerization of IT: *Key Strategies to capture and measure the value of consumerization of IT*. Retrieved Jun 2016 from http://www.trendmicro.com/cloud-content/us/pdfs/business/white-papers/wp_forrester_measure-value-of-consumerization.pdf

USA. Cisco Systems Inc. (2012) Bring Your Own Device.USA. Cisco Public Information.

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS quarterly*, 425-478.

Wangutusi G.N. (2014), An exploration of how BYOD user behavior impacts on an organizations information Security.

WatchGuard (2013). *Ten Tips for establishing a secure foundation for BYOD*. Watch Guard Technologies Whitepaper. Retrieved July 2016 http://secure.watchguard.com/GNNews_BYODWhitePaper.html

web Finance Inc (2016). *Operations performance Measurements.*

# APPENDIX 1

# RESEARCH QUESTIONNAIRE

My name is Josphat Chege Mwangi, an MBA student at University of Nairobi conducting a research on "Enterprise mobility and bring your own device (BYOD) on operations performance: A case study of Ramco Group of Companies.'

I am kindly requesting you to take a few minutes of your time to assist in completing the following questionnaire.

**Section A: Background Information**

**NAME:** _____

**COMPANY:** _____

**DEPARTMENT:**

Human Resource [ ]　　　ICT [ ]　　　Administration [　]

Sales [ ]　　　Finance [ ]　　　Procurement [　]

1. What is your gender?

Male { }　　　　　Female { }

2. What age bracket do you belong?

Below 30 Years { }　　　　　31 – 40 Years { }

41 – 50 Years { }　　　　　Above 50 Years { }

3. Number of years in the organization

Below 1 year { }　　　1-5 years { }　　　6-10 years { }

11-15 Years { }　　　15 years and above { }

4. Highest Level of Education

Secondary { }　　　College { }　　　Under graduate { }

Post graduate { }　　　Others { }

**SECTION B: The Extent of Enterprise Mobility and operational performance**

5.  Does your company allow access of corporate data and applications remotely?

    □ Yes

    □ No

6.  Does your organization provide company owned mobile devices to support enterprise mobility?

    □ Yes

    □ No

7.  How often do you access applications or corporate data while outside your company to accomplish your tasks?

    □ Very Frequently

    □ Frequently

    □ Normally

    □ Rarely

    □ Very Rarely

8.  The following are statements on enterprise mobility. Indicate your opinion in each. In a scale of 1-5. Where, SA-strongly agree (5), A-Agree (4), N-neutral (3), D-disagree (2), SD-strongly disagree (1).

| Statement | SA | A | N | D | SD |
|---|---|---|---|---|---|
| Enterprise mobility in my company is a reserve for a few people within the organizations. | | | | | |
| The Company in which I work for allows employees/staff to access application and systems remotely to remain productive | | | | | |
| Enterprise Mobility creates a channel for distributing information promptly to mobile users with remote access. | | | | | |
| Enterprise mobility enhances communication between employees, partners and customers irrespective of the location | | | | | |
| Enterprise mobility enhances business operations through employee flexibility. | | | | | |

**SECTION C: The Extent of Bring your Own Device (BYOD) and operational performance**

9. Does your organization allow access of corporate data or applications from employee's personal mobile devices within the organization to accomplish tasks?

   □ Yes

   □ No

10. How often do you access applications or corporate data on your personal device within the organization to perform work related tasks?

    □ Very Frequently

    □ Frequently

    □ Normally

    □ Rarely

11. The following are statements on Bring Your Own Device indicate your opinion on each. In a scale of 1-5. Where, SA-Strongly Agree (5), Agree (4), N-neutral (3), D-Disagree (2), SD-Strongly Disagree (1).

| Statement | SA | A | N | D | SD |
|---|---|---|---|---|---|
| BYOD framework assists employees to use their mobile devices to carry out businesses related activities, access enterprise data and systems from within the company. | | | | | |
| BYOD has enhanced mobility of employees within the organization as their personal devices to access organization applications with ease from any location within the organization. | | | | | |
| My firm is able to reduce expenditure by adoption of BYOD technology. | | | | | |
| BYOD helps in optimizing business processes across the organization | | | | | |
| BYOD assists users to invent / creates new business models | | | | | |
| BYOD allows users to access applications and data through their mobile devices while at work place to accomplish work related tasks and activities and also do quick references. | | | | | |

12. In your own opinion, kindly indicate how does Bring your Own Device affect operational performance in your firm?

………………………………………………….

**SECTION D: Enterprise Mobility and BYOD Challenges**

13. Does the IT Department apply configurations to your mobile device?
   □ Yes
   □ No

14. Are there any restrictions to the use of personal mobile device to access organizational data?
   □ Yes
   □ No

15. Does your organization have enterprise mobility policies in place?
   □ Yes
   □ No

16. If yes, how often are they reviewed?
   □ Every Year
   □ Every 1 – 2 yrs.
   □ Every 2 – 3 yrs.
   □ Yet to be reviewed.

17. Does any of the following challenges affect adoption of Enterprise Mobility in your organization? Kindly indicate the extent to which each of the challenges apply to your organization.

| CHALLENGES | No Extent | Small Extent | Moderate Extent | Large Extent | Very Large Extent |
|---|---|---|---|---|---|
| i) Managing the infrastructure to support enterprise mobility. | ☐ | ☐ | ☐ | ☐ | ☐ |
| ii) Managing fear of privacy infringement by employees. | ☐ | ☐ | ☐ | ☐ | ☐ |
| iii) Managing data security & threats attacks | ☐ | ☐ | ☐ | ☐ | ☐ |
| iv) Managing rapid changes in technology | ☐ | ☐ | ☐ | ☐ | ☐ |
| v) Lack of technological Skills to support Enterprise Mobility Framework | ☐ | ☐ | ☐ | ☐ | ☐ |
| vi) Rigid Organizational Culture | ☐ | ☐ | ☐ | ☐ | ☐ |
| ii) Lack of Top Level Management Support | ☐ | ☐ | ☐ | ☐ | ☐ |

18. How do the following challenges affect adoption of BYOD in your organization? Kindly indicate the extent to which each of the statement apply to your organization.

| CHALLENGES | No Extent | Small Extent | Moderate Extent | Large Extent | Very Large Extent |
|---|---|---|---|---|---|
| i) Managing personal mobile devices. | ☐ | ☐ | ☐ | ☐ | ☐ |
| ii) Managing data Security & threats attacks | ☐ | ☐ | ☐ | ☐ | ☐ |
| iii) Managing the rapid Changes in technology | ☐ | ☐ | ☐ | ☐ | ☐ |
| iv) Lack of Technological Skills to support BYOD framework | ☐ | ☐ | ☐ | ☐ | ☐ |
| v) Managing Fear of Privacy Infringement | ☐ | ☐ | ☐ | ☐ | ☐ |
| vi) Managing Data compliance issues. | ☐ | ☐ | ☐ | ☐ | ☐ |
| vii) Incompatibility of personal devices | ☐ | ☐ | ☐ | ☐ | ☐ |

19. Does your organization have a Mobile Device Management platform?

□ Yes

□ No

20. Do your organization have an Enterprise Mobility Management platform/Enterprise Management Suite?

□ Yes

□ No

21. What areas would you like the organization to improve on Enterprise Mobility to enhance operations performance?

_____

_____

22. What areas would you like the organization to improve on BYOD to enhance operations performance?

_____

_____

**SECTION E: Operations Performance**

23. The following are some of the activities/tasks you can accomplish with Enterprise Mobility. Indicate the extent of use if applicable on each.

| **Tasks/Activities** | No Extent | Small Extent | Moderate Extent | Large Extent | Very Large Extent |
|---|---|---|---|---|---|
| i.) Order Management | □ | □ | □ | □ | □ |
| ii.) Quote Management | □ | □ | □ | □ | □ |
| iii.) Calendar Management | □ | □ | □ | □ | □ |
| iv.) Leave request & approval | □ | □ | □ | □ | □ |
| v.) Collaboration | □ | □ | □ | □ | □ |
| vi.) Contacts Management | □ | □ | □ | □ | □ |
| vii.) Inventory Management | □ | □ | □ | □ | □ |
| viii.) Process Automation | □ | □ | □ | □ | □ |

Any other _____

_____

24. The following are the several ways that Enterprise Mobility affects organization's operations performance. Kindly indicate the extent to which each of the statement apply to your company.

| STATEMENT | No Extent | Small Extent | Moderate Extent | Large Extent | Very Large Extent |
|---|---|---|---|---|---|
| i) Helps Improved productivity. | ☐ | ☐ | ☐ | ☐ | ☐ |
| ii) Improves access to information & data from any location | ☐ | ☐ | ☐ | ☐ | ☐ |
| iii) Helps in improving decision making | ☐ | ☐ | ☐ | ☐ | ☐ |
| iv) Enhances user satisfaction | ☐ | ☐ | ☐ | ☐ | ☐ |
| v) Improves the response time to requests. | ☐ | ☐ | ☐ | ☐ | ☐ |
| vi) Improves collaboration between users and external clients | ☐ | ☐ | ☐ | ☐ | ☐ |

**THANK YOU FOR TAKING TIME**