Strategy

# CHALLENGES IN THE IMPLEMENTATION OF THE BUSINESS AUTOMATION PROJECT AT KENYA REVENUE AUTHORITY (KRA)

## A CASE OF KENYA REVENUE AUTHORITY

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# CHALLENGES IN THE IMPLEMENTATION OF THE BUSINESS AUTOMATION PROJECT AT KENYA REVENUE AUTHORITY (KRA) A CASE OF KENYA REVENUE AUTHORITY

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## Abstract

*Purpose:*The purpose of this study was to determine the challenges encountered by KRA in implementation of business automation.

*Methodology:*The research design was descriptive in nature and stratified random sampling technique was used to sample forty (40) respondents from a population of one hundred and fifty seven (157) staff working at KRA in the Information Communication and Technology department (ICT). The staff included both management and non-management staff. The study used both primary and secondary data. Primary data was collected using self administered questionnaires while secondary data sources comprised of internal memos, strategic plans, project plans and documentation relating to Business Automation activities. The data was then tabulated and weighted to determine key challenges and responses.

The study used quantitative and qualitative methods of data analysis. Statistical Package for Social Sciences (SPSS) version 20 program was used for analysis. The results were presented using tables and pie charts. Similarly, qualitative data was summarized and categorized according to common themes and presented in continuous prose form.

*Results:* The study concluded that organizational related challenges hindered implementation of business automation at KRA.The study also concluded that environmental related challenges hindered implementation of business automation at KRA. Further, the study concluded that better mitigation strategies enhance effective implementation of business automation projects in KRA

*Unique contribution to theory, practice and policy*: The study recommends that KRA should deal effectively with the challenges highlighted above and implement their mitigation strategies.

*Keywords: organization related challenges, environment related challenges, problems*

## 1.0 INTRODUCTION

### 1.1 Background of Study

World trade has expanded more than twice as rapidly as world gross domestic product over the past decade (World Bank, 2005). This increase, for example, has resulted in an increased demand for trade integration and a range of complementary policies by customs administrations that provide traders with transparent, predictable, and speedy clearance of goods (Lane, 2008). In addition, the customs administrations have had to face changes in their operating environment including: more sophisticated and demanding clients who have invested heavily in modern logistics, inventory control and information systems; greater policy and procedural requirements associated with international commitments; proliferation of regional and bilateral trade agreements, which increases the complexity of administering border formalities and controls and heightened security concerns and demands to respond to the threats posed by international terrorism and transnational organized crime.In response to the above challenges many countries have devoted substantial resources to reforming and modernizing their operations and modernization of customs has been on the development agenda of many governments (World Bank, 2005).

Change management entails planning and coordinating the transition from one state to another in an organization. "Change management is a structured and systematic approach to achieving a sustained change in human behaviour." (Todd 1999). Organizational change can be strategic or operational. Whereas operational change aims at ensuring that organizational activities are done in the best way possible, strategic change involves fundamental changes in the business of the organization or its future direction. All changes take place under certain contexts which, invariably include forces that operate to bring about change and some of the forces that engendered the change in business processes have been mentioned in the introduction and more appear later in this chapter.

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The three main areas in corporate strategy are strategy analysis, strategy development and strategy implementation. Lynch (1999) states that there are two main approaches to corporate strategy including the prescriptive approach, which includes strategy analysis and strategy development followed by strategy implementation. Then there is the emergent approach to strategy, which holds that strategy development and strategy implementation are essentially interrelated. Strategy implementation is the most crucial of the three and this project was about how KRA implemented the Business Automation project, which involved changes that were strategic in nature. The changes that Business Automation project inculcated were on technology, service, people and administrative.

The world is on the threshold of a new era of innovation and change with the rise of the industrial internet. It is taking place through the convergence of the global industrial system with the power of advanced computing, analytics, low-cost sensing and new levels of connectivity permitted by the internet. The deeper meshing of the digital world with the world of machines holds the potential to bring about profound transformation to global industry, and in turn to many aspects of daily life, including the way many of us do our jobs. These innovations promise to bring greater speed and efficiency to industries as diverse as aviation, rail transportation, power generation, oil and gas development, and health care delivery. It holds the promise of stronger economic growth, better and more jobs and rising living standards, whether in the US or in China, in a megacity in Africa or in a rural area in Kazakhstan (Evans and Annuziata, 2012).

## 1.2 Problem Statement

Projects that involve strategic change in organizations face difficulties including organizational culture, poor planning, change of leadership, and resistance to change. The challenge becomes more complex in the case of projects that involve introduction of new technology. According to research carried out in the USA by the Standish Group, 31 percent of IT projects are cancelled before completion (Ewusi-Mensah, 1997).

One of the reasons IT projects fail say in customs administrations is because IT projects depend on a number of factors, many of which are outside the direct control of the customs administration itself, like the telecommunication technologies and infrastructure (De Wulf and McLinden, 2005). The absence of good diagnostic work has also been identified by World Bank, as a major shortcoming in the reforms and modernization projects (Barbone, DeWulf, Das-Gupta, and Hanson 2001).

KRA has effected numerous changes aimed at making it effective and efficient in collection and accounting of revenues. This has resulted in improved service delivery and collection of revenues. The changing economic, technological and operational environment has necessitated the change process. There has been change in systems, procedures, people, and structures among other components. These changes have made KRA adopt new strategies such as business automation which creates the need to address the challenges faced in implementing these strategies.

Pasts studies have been done on change management in Kenyan companies such as Wandera (2012) who sought to establish the challenges faced by KEMRI in the implementation of automation strategy. Many studies have also been done in KRA such as Change Management

Practices adopted by KRA in its Revenue and Administration Program (Odundo, 2007), Njoki (2011) who sought to establish the challenges faced in implementing strategic change in Kenya Revenue Authority (KRA). Mukhongo (2013) who sought to establish the challenges of implementing the ICT strategy at the KRA and determining the measures necessary to overcome the challenges established in that organization and Aliet (2008) who sought to determine how KRA implemented the Customs Reforms and Modernization Program, the challenges KRA encountered in implementing the reforms and modernization initiatives and how KRA responded to those challenges. However no study has been done on challenges in the implementation of Business Automation at KRA. This project therefore seeks to bridge this gap. The research question therefore is: What are the challenges in the implementation of Business Automation Projects at KRA

## 1.3 Research Questions

1.3.1What is some of the organization related challenges that face business automation project in KRA?

1.3.2What is some of the environment related challenges that face business automation project in KRA?

1.3.3How does Kenya Revenue Authority plan to mitigate these problems

## 2.0 LITERATURE REVIEW

## 2.2 Organizational Related Challenges Facing Business Automation Projects

### 2.2.1 Poor Implementation of Project Management Basics
Project management is the application of knowledge, skills, tools and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project (Duncan, 1996). Meeting or exceeding stakeholder needs and expectations invariably involves balancing competing demands among:- scope, time cost and quality, stakeholders with differing needs and expectations, identified requirements/needs and unidentified requirements/expectations.

### 2.2.2 Lack of Standard Business Logic
Wandera (2012) sought to establish the challenges faced by KEMRI in the implementation of automation strategy. This study adopted a case study since the unit of analysis was one organization. The study used primary data collected using an interview guide with six senior managers in the organization to avoid duplicity of data. KEMRI faced several challenges in its automation strategy implementation including inadequate resources to finance the implementation of the automation strategy, high resistance from staff who were meant to be the implementing agents but preferred status quo, Inadequate office and limited training on the new Enterprise Resource Planning software system. To respond to the challenges, KEMRI leadership created awareness of the automation of KEMRI business processes so as to foster positive attitude towards the planned change in work processes so as to reduce resistance from employees. It also facilitated resources availability despite the diminishing funding from the Exchequer.

### 2.2.3 Lack of Technical Expertise

Capacity to develop, maintain, upgrade information technology systems and provide reliable backup or recovery systems is very vital in ensuring efficiency in the organization operations. A major challenge, especially in government institutions is the procurement process, is the long procedure which is tedious and can drag along such that by the time a tender is approved; new technology is out in the market. In addition, projects may have all the funding required to procure the hardware and software while the employees that will be involved in the implementation of the new system have not received the required training. This can lead to poor implementation or if consultants were hired to aid in the implementation process, there would be no transfer of knowledge. This further leads to poor management of the new system and eventually higher maintenance costs to the organization as the consultants will have to be called back in the event that a breakdown in the system occurs or annual maintenance required(The Commonwealth Association of Tax Administrators, (2008).

### 2.2.4 Poor Telecommunication Facilities and Inadequate ICT Infrastructure

Over the recent past, KRA has made great efforts to automate most of the business functions by adopting web-based technologies. However, one of the serious challenges is availability of the developed systems for use by staff and taxpayers when required. There are frequent system interruptions (and slowness) due to scarce ICT infrastructure and telecommunication facilities in the country. This has hampered the efficiency of the Authority to process taxpayer information as expected leading to recurrent inaccessibility of the system to taxpayers who are required to perform certain functions on-line. However, the recent completion of the undersea fibre cable will improve on the connectivity but will also increase the risk of system breaches(The Commonwealth Association of Tax Administrators, (2008).

## 3.0 RESEARCH METHODOLOGY

*Methodology:*The research design was descriptive in nature and stratified random sampling technique was used to sample forty (40) respondents from a population of one hundred and fifty seven (157) staff working at KRA in the Information Communication and Technology department (ICT). The staff included both management and non-management staff. The study used both primary and secondary data. Primary data was collected using self administered questionnaires while secondary data sources comprised of internal memos, strategic plans, project plans and documentation relating to Business Automation activities. The data was then tabulated and weighted to determine key challenges and responses.

The study used quantitative and qualitative methods of data analysis. Statistical Package for Social Sciences (SPSS) version 20 program was used for analysis. The results were presented using tables and pie charts. Similarly, qualitative data was summarized and categorized according to common themes and presented in continuous prose form.

## 4.0 RESULTS AND DISCUSSIONS

### 4.1: Business Automation

### 4.1.1 Organizational Related Challenges

The respondents were asked whether organizational related challenges caused challenges in the implementation of business automation at KRA.   Results in table 1 reveal that 37.5% of the respondents strongly agreed while 42.5% agreed adding up to a total of 80% who agreed. Further the results showed that 5% of the respondents were neutral, 7.5% disagreed and 7.5% strongly disagreed.

**Table 1: Organizational Related Challenges**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Organizational related challenges | Strongly disagree | 3 | 7.50 |
| | Disagree | 3 | 7.50 |
| | Neutral | 2 | 5.00 |
| | Agree | 17 | 42.50 |
| | Strongly agree | 15 | 37.50 |

### 4.1.2 Environmental Related Challenges

The respondents were asked whetherenvironmental related challenges caused challenges in the implementation of business automation at KRA.   Results in table 2 reveal that a majority (67.5%) of the respondents strongly agreed while 30% agreed adding up to a total of 97.5% who agreed. Further the results showed that 2.5% of the respondents disagreed.

**Table 2: Environmental Related Challenges**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Environmental related challenges | Strongly disagree | 0 | 0.00 |
| | Disagree | 1 | 2.50 |
| | Neutral | 0 | 0.00 |
| | Agree | 12 | 30.00 |
| | Strongly agree | 27 | 67.50 |

### 4.1.3 Mitigation Strategies

The respondents were asked whetherlack of mitigation strategies caused challenges in the implementation of business automation at KRA.   Results in table 4.3 reveal that a majority (57.5%) of the respondents strongly agreed while 32.5% agreed adding up to a total of 90% who agreed. Further the results showed that 5% of the respondents were neutral and 5% disagreed.

**Table 3: Mitigation Strategies**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Lack of mitigation strategies | Strongly disagree | 0 | 0.00 |
| | Disagree | 2 | 5.00 |
| | Neutral | 2 | 5.00 |

European Journal Of Business And Strategic Management
ISSN xxxx-xxxx (Paper) ISSN 2518-265X (Online)
Vol.2, Issue 3 No.4, pp 89 - 116, 2017

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| | | Agree | 13 | 32.50 |
| | | Strongly agree | 23 | 57.50 |

## 4.2: Organization Related challenges

The study sought to establish the organization related challenges that face business automation project in KRA. The results were presented as follows.

### 4.2.1 Unsupportive Repacking of Existing Projects to New Strategy

The respondents were asked whether unsupportive repacking of existing projects to new strategy hindered business automation projects in KRA. A majority (57%) of the respondents strongly agreed while 35% agreed adding up to a total of 92.5% who agreed. Seven pont five percent (7.5%) were neutral. The results are presented in Table 4.

**Table 4: Unsupportive Repacking of Existing Projects to New Strategy**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Unsupportive repacking of existing projects to new strategy | Strongly disagree | 0 | 0.00 |
| | Disagree | 0 | 0.00 |
| | Neutral | 3 | 7.50 |
| | Agree | 14 | 35.00 |
| | Strongly agree | 23 | 57.50 |

### 4.2.2 Inadequate Resources to Finance

The respondents were asked whether inadequate resources to finance hindered business automation projects in KRA. A majority (60%) of the respondents strongly agreed while 35% agreed adding up to a total of 95% who agreed. Five percent (5%) of the respondentsdisagreed.The results are presented in Table 4.5.

**Table 5: Inadequate Resources to Finance**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Inadequate resources to finance | Strongly disagree | 0 | 0.00 |
| | Disagree | 2 | 5.00 |
| | Neutral | 0 | 0.00 |
| | Agree | 14 | 35.00 |
| | Strongly agree | 24 | 60.00 |

### 4.2.3 Inadequate Training on the New Enterprise Resource Planning Software System

The respondents were asked whether inadequate training on the new enterprise resource planning software system hindered business automation projects in KRA. Results in table 4.6 reveal that 47.5% of the respondents strongly agreed while 40% agreed adding up to a total of 87.5% who agreed. Ten percent (10%) of the respondents disagreed.

**Table 6: Inadequate Training on the New Enterprise Resource Planning Software System**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Inadequate training on the new Enterprise Resource Planning software system | Strongly disagree | 0 | 0.00 |
| | Disagree | 4 | 10.00 |
| | Neutral | 1 | 2.50 |
| | Agree | 16 | 40.00 |
| | Strongly agree | 19 | 47.50 |

### 4.2.3 Lack of Proper IT Infrastructure

The respondents were asked whether lack of proper IT infrastructure hindered business automation projects in KRA. Results in table 4.7 reveal that a majority (52.5%) of the respondents strongly agreed while 42.5% agreed adding up to a total of 95% who agreed. Five percent (5%) of the respondents were neutral.

**Table 7: Lack of Proper IT Infrastructure**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Lack of proper IT infrastructure | Strongly disagree | 0 | 0.00 |
| | Disagree | 0 | 0.00 |
| | Neutral | 2 | 5.00 |
| | Agree | 17 | 42.50 |
| | Strongly agree | 21 | 52.50 |

### 4.2.3 Lack of Enhanced IT Security

The respondents were asked whether lack of enhanced IT security hindered business automation projects in KRA. Results in table 4.8 reveal that a majority (60%) of the respondents strongly agreed while 37.5% agreed adding up to a total of 97.5% who agreed. Two point five percent (2.5%) of the respondents disagreed.

**Table 8: Lack of Enhanced IT Security**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Lack of enhanced IT security | Strongly disagree | 0 | 0.00 |
| | Disagree | 1 | 2.50 |
| | Neutral | 0 | 0.00 |
| | Agree | 15 | 37.50 |
| | Strongly agree | 24 | 60.00 |

### 4.4.6 Long Periods of Planning before the Project is Executed

The respondents were asked whether long periods of planning before the project isexecutedhindered business automation projects in KRA. Results in table 4.9 reveal that 42.5%

European Journal Of Business And Strategic Management
ISSN xxxx-xxxx (Paper) ISSN 2518-265X (Online)
Vol.2, Issue 3 No.4, pp 89 - 116, 2017

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of the respondents strongly agreed while 45% agreed adding up to a total of 87.5% who agreed. Further the results showed that 10% of the respondent disagreed while 2.5% of the respondents were neutral.

**Table 9: Long Periods of Planning before the Project is Executed**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Long periods of planning before the project is executed | Strongly disagree | 0 | 0.00 |
| | Disagree | 4 | 10.00 |
| | Neutral | 1 | 2.50 |
| | Agree | 18 | 45.00 |
| | Strongly agree | 17 | 42.50 |

**4.4.7 Lack of Adequate Project Management Resources**

The respondents were asked whether lack of adequate project management resources hindered business automation projects in KRA. Results in table 4.10 reveal that a majority (52.5%) of the respondents strongly agreed while 42.5% agreed adding up to a total of 95% who agreed. Further the results showed that 5% of the respondents were neutral.

**Table 10: Lack of Adequate Project Management Resources**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Lack of adequate project management resources | Strongly disagree | 0 | 0.00 |
| | Disagree | 0 | 0.00 |
| | Neutral | 2 | 5.00 |
| | Agree | 17 | 42.50 |
| | Strongly agree | 21 | 52.50 |

**4.5 Environmental Related challenges**

The study sought to establish the environmental related challenges that face business automation project in KRA. The results were presented as follows.

**4.5.1 Resistance to Change by Employees**

The respondents were asked whether resistance to change by employees hindered business automation projects in KRA. Results in table 4.11 reveal that 47.5% of the respondents strongly agreed while 32.5% agreed adding up to a total of 80% who agreed. Further the results showed that 5% of the respondents were neutral.

**Table 11: Resistance to Change by Employees**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Resistance to change by employees | Strongly disagree | 2 | 5.00 |
| | Disagree | 4 | 10.00 |

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| | | | |
|---|---|---|---|
| | Neutral | 2 | 5.00 |
| | Agree | 13 | 32.50 |
| | Strongly agree | 19 | 47.50 |

## 4.5.2 Power of Suppliers

The respondents were asked whether power of suppliers hindered business automation projects in KRA.  Results in table 4.12 reveal that 32.5% of the respondents strongly agreed while a majority of 57.5% agreed adding up to a total of 90% who agreed. Further the results showed that 10% of the respondents were neutral.

**Table 12: Power of Suppliers**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Power of suppliers | Strongly disagree | 0 | 0.00 |
| | Disagree | 0 | 0.00 |
| | Neutral | 4 | 10.00 |
| | Agree | 23 | 57.50 |
| | Strongly agree | 13 | 32.50 |

## 4.5.3 Complexity in Leadership

The respondents were asked whether complexity in leadership hindered business automation projects in KRA.  Results in table 4.13 reveal that 32.5% of the respondents strongly agreed while a majority of 60% agreed adding up to a total of 92.5% who agreed. Further the results showed that 7.5% of the respondents were neutral.

**Table 13: Complexity in Leadership**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Complexity in leadership | Strongly disagree | 0 | 0.00 |
| | Disagree | 0 | 0.00 |
| | Neutral | 3 | 7.50 |
| | Agree | 24 | 60.00 |
| | Strongly agree | 13 | 32.50 |

## 4.5.4 Resistance from Stakeholders and the Legal and Regulatory Framework

The respondents were asked whether resistance from stakeholders and the legal and regulatory framework hindered business automation projects in KRA.  Results in table 4.14 reveal that 45% of the respondents strongly agreed while 45% agreed adding up to a total of 90% who agreed. Further the results showed that 10% of the respondents were neutral.

**Table 14: Resistance from Stakeholders and the Legal and Regulatory Framework**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Resistance from stakeholders and the legal and regulatory framework | Strongly disagree | 0 | 0.00 |
| | Disagree | 0 | 0.00 |

European Journal Of Business And Strategic Management
ISSN xxxx-xxxx (Paper) ISSN 2518-265X (Online)
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| | | | |
|---|---|---|---|
| | Neutral | 4 | 10.00 |
| | Agree | 18 | 45.00 |
| | Strongly agree | 18 | 45.00 |

### 4.5.5 Poor Communication

The respondents were asked whether poor communicationhindered business automation projects in KRA. Results in table 4.15 reveal that 35% of the respondents strongly agreed while a majority of 52.5% agreed adding up to a total of 87.5% who agreed. Further the results showed that 12.5% of the respondents were neutral.

**Table 15: Poor Communication**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Poor Communication | Strongly disagree | 0 | 0.00 |
| | Disagree | 0 | 0.00 |
| | Neutral | 5 | 12.50 |
| | Agree | 21 | 52.50 |
| | Strongly agree | 14 | 35.00 |

### 4.5.6 Organizational Politics

The respondents were asked whether organizational politicshindered business automation projects in KRA. Results in table 4.16 reveal that 25% of the respondents strongly agreed while a majority of 65% agreed adding up to a total of 90% who agreed. Further the results showed that 10% of the respondents were neutral.

**Table 16: Organizational Politics**

| Statement | | Frequency | Percent |
|---|---|---|---|
| Organizational politics | Strongly disagree | 0 | 0.00 |
| | Disagree | 0 | 0.00 |
| | Neutral | 4 | 10.00 |
| | Agree | 26 | 65.00 |
| | Strongly agree | 10 | 25.00 |

### 4.5.7 Organizational Culture

The respondents were asked whether organizational culturehindered business automation projects in KRA. Results in table 4.17 reveal that 37.5% of the respondents strongly agreed while 45% agreed adding up to a total of 82.5% who agreed. Further the results showed that 15% of the respondents were neutral while 2.5% strongly disagreed.

Table 4.17: Organizational Culture

| Statement | | Frequency | Percent |
|---|---|---|---|
| Organizational culture | Strongly disagree | 1 | 2.50 |
| | Disagree | 0 | 0.00 |

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ISSN xxxx-xxxx (Paper) ISSN 2518-265X (Online)
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| | | | |
|---|---|---|---|
| | Neutral | 6 | 15.00 |
| | Agree | 18 | 45.00 |
| | Strongly agree | 15 | 37.50 |

### 4.5.8 Organizational Structure

The respondents were asked whether organizational structurehindered business automation projects in KRA.  Results in table 4.18 reveal that 35% of the respondents strongly agreed while a majority of 52.5% agreed adding up to a total of 87.5% who agreed. Further the results showed that 12.5% of the respondents were neutral.

Table 4.18: Organizational Structure

| Statement | | Frequency | Percent |
|---|---|---|---|
| Organizational structure | Strongly disagree | 0 | 0.00 |
| | Disagree | 0 | 0.00 |
| | Neutral | 5 | 12.50 |
| | Agree | 21 | 52.50 |
| | Strongly agree | 14 | 35.00 |

### 4.6 Mitigation Strategies

The study sought to establish how Kenya Revenue Authority mitigates the challenges encountered during implementation of business automation. The results were presented as follows.

### 4.6.1 Hiring New Staff with the Requisite Skills

The respondents were asked whether hiring new staff with the requisite skillshas helped to mitigate the challenges encountered during implementation of business automation at KRA. Results in table 4.19 reveal that 22.5% of the respondents strongly agreed while a majority of 52.5% agreed adding up to a total of 75% who agreed. Further the results showed that 7.5% of the respondents were neutral, 10% disagreed and 7.5 strongly disagreed adding up to 17.5% who disagreed.

Table 4.19: Hiring New Staff with the Requisite Skills

| Statement | | Frequency | Percent |
|---|---|---|---|
| Hiring new staff with the requisite skills | Strongly disagree | 3 | 7.50 |
| | Disagree | 4 | 10.00 |
| | Neutral | 3 | 7.50 |
| | Agree | 21 | 52.50 |
| | Strongly agree | 9 | 22.50 |

### 4.6.2 Improved Project Management Style

The respondents were asked whether improved project management style has helped to mitigate the challenges encountered during implementation of business automation at KRA.   Results in

European Journal Of Business And Strategic Management
ISSN xxxx-xxxx (Paper) ISSN 2518-265X (Online)
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table 4.20 reveal that a majority (62.5%) of the respondents strongly agreed while 37.5% agreed adding up to a total of 100% who agreed.

Table 4.20: Improved Project Management Style

| Statement | | Frequency | Percent |
|---|---|---|---|
| Improved project management style | Strongly disagree | 0 | 0.00 |
| | Disagree | 0 | 0.00 |
| | Neutral | 0.00 | 0.00 |
| | Agree | 15 | 37.50 |
| | Strongly agree | 25 | 62.50 |

### 4.6.3 Change of Organizational Structure

The respondents were asked whether change of organizational structure has helped to mitigate the challenges encountered during implementation of business automation at KRA.   Results in table 4.21 reveal that a majority (65%) of the respondents strongly agreed while 27.5% agreed adding up to a total of 92.5% who agreed. Further the results showed that 5% of the respondents were neutral and 2.5% disagreed.

Table 4.21: Change of Organizational Structure

| Statement | | Frequency | Percent |
|---|---|---|---|
| Change of organizational structure | Strongly disagree | 0 | 0.00 |
| | Disagree | 1 | 2.50 |
| | Neutral | 2 | 5.00 |
| | Agree | 11 | 27.50 |
| | Strongly agree | 26 | 65.00 |

### 4.6.4 Smooth Flow of Information

The respondents were asked whether smooth flow of information has helped to mitigate the challenges encountered during implementation of business automation at KRA.   Results in table 4.22 reveal that a majority (50%) of the respondents strongly agreed while 42.5% agreed adding up to a total of 92.5% who agreed. Further the results showed that 5% of the respondents were neutral and 2.5% strongly disagreed.

Table 4.22: Smooth Flow of Information

| Statement | | Frequency | Percent |
|---|---|---|---|
| Smooth flow of information | Strongly disagree | 1 | 2.50 |
| | Disagree | 0 | 0.00 |
| | Neutral | 2 | 5.00 |
| | Agree | 17 | 42.50 |
| | Strongly agree | 20 | 50.00 |

### 4.6.5 Capacity Building

The respondents were asked whether capacity building where employees with limited skills were trained on how to use the system has helped to mitigate the challenges encountered during implementation of business automation at KRA.   Results in table 4.23 reveal that a majority (52.5%) of the respondents strongly agreed while 42.5% agreed adding up to a total of 95% who agreed. Further the results showed that 2.5% of the respondents were neutral and 2.5% disagreed.

Table 4.23: Capacity Building

| Statement | | Frequency | Percent |
|---|---|---|---|
| Capacity building where employees with limited skills were trained on how to use the system | Strongly disagree | 0 | 0.00 |
| | Disagree | 1 | 2.50 |
| | Neutral | 1 | 2.50 |
| | Agree | 17 | 42.50 |
| | Strongly agree | 21 | 52.50 |

### 4.6.6 Incorporating of the Automation Strategy into its Employees' Daily Job Descriptions

The respondents were asked whether incorporating of the automation strategy into its employees' daily job descriptions has helped to mitigate the challenges encountered during implementation of business automation at KRA.   Results in table 4.24 reveal that 45% of the respondents strongly agreed while 42.5% agreed adding up to a total of 87.5% who agreed. Further the results showed that 2.5% of the respondents were neutral and 10% disagreed.

Table 4.24: Incorporating of the Automation Strategy into its Employees' Daily Job Descriptions

| Statement | | Frequency | Percent |
|---|---|---|---|
| Incorporating of the automation strategy into its employees' daily job descriptions | Strongly disagree | 0 | 0.00 |
| | Disagree | 4 | 10.00 |
| | Neutral | 1 | 2.50 |
| | Agree | 17 | 42.50 |
| | Strongly agree | 18 | 45.00 |

### 4.6.7 Political Support

The respondents were asked whether political support has helped to mitigate the challenges encountered during implementation of business automation at KRA.   Results in table 4.25 reveal that a majority (65%) of the respondents strongly agreed while 30% agreed adding up to a total of 95% who agreed. Further the results showed that 5% of the respondents disagreed.

Table 4.25: Political Support

| Statement | | Frequency | Percent |
|---|---|---|---|
| Political support | Strongly disagree | 0 | 0.00 |

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| | | | |
|---|---|---|---|
| | Disagree | 2 | 5.00 |
| | Neutral | 0 | 0.00 |
| | Agree | 12 | 30.00 |
| | Strongly agree | 26 | 65.00 |

## 4.7 Inferential Statistics

This section presents the correlation and regression analysis.

### 4.7.1 Bivariate Correlation

The correlation results between business automation and independent variable are presented. Table 4.26 displays the results of correlation test analysis between the dependent variable (business automation) and independent variables (organization related challenges, environmental related challenges and mitigation strategies) and also correlation among the independent variables themselves. Results on Table 4.26 show that business automation is positively correlated with all the independent variables as supported by significant p values of 0.02 and beta coefficient of -0.189 for organization related challenges, 0.061 and beta coefficient of -0.083 for environmental related challenges and 0.045 and beta coefficient of 0.123 for mitigation strategies. This reveals that any positive change in organization related challenges and environmental related challenges led to decreased implementation of business automation. In addition, any positive change in mitigation strategies led to increased implementation of business automation.

Table 4.28: Bivariate Correlation

| Variable | | Business Automation | Organization Related Challenges | Environmental Related Challenges | Mitigation Strategies |
|---|---|---|---|---|---|
| Business Automation | Pearson Correlation | 1 | | | |
| | Sig. (2-tailed) | | | | |
| Organization Related Challenges | Pearson Correlation | -0.189 | 1 | | |
| | Sig. (2-tailed) | 0.024 | | | |
| Environmental Related Challenges | Pearson Correlation | -0.083 | 0.167 | 1 | |
| | Sig. (2-tailed) | 0.061 | 0.303 | | |
| Mitigation Strategies | Pearson Correlation | 0.123 | 0.21 | -0.076 | 1 |

European Journal Of Business And Strategic Management
ISSN xxxx-xxxx (Paper) ISSN 2518-265X (Online)
Vol.2, Issue 3 No.4, pp 89 - 116, 2017

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| | | | |
|---|---|---|---|
| on | | | |
| Sig. (2-tailed) | 0.045 | 0.194 | 0.641 |

## 5.0 DISCUSSION CONCLUSIONS AND RECOMMENDATIONS

### 5.1 :Summary

The general objective of this study was to determine the challenges in the implementation of the business automation project at Kenya Revenue Authority (KRA). The specific objectives of this study were to determine the organization related challenges that face business automation project in KRA, to determine the environment related challenges that face business automation project in KRA and to establish how Kenya Revenue Authority plans to mitigate these problems.

For purposes of collecting primary data, the use of a questionnaire and a key interview guide developed by the researcher was used and their results analyzed using various statistical methods such as graphs, charts and with the aid of statistical tools such as Microsoft Excel and SPSS. A population size of 157 employees working at KRA and a sample size of 40 employees was identified through a census. A response rate of 40 (100%) was achieved out of a possible 40 questionnaires handed out. According to Mugenda and Mugenda (2003) and also Kothari (2004) a response rate of 50 % or more is ideal for data analysis. Babbie (2004) also asserted that return rate of 50% is acceptable to analyze and publish, 60% is good and 70% is very good. Based on these assertions from renowned scholars 100% response rate is adequate for the study.

The study finding indicated that majority of the respondents were male (62.5%) followed by female (37.5%), 65% of the respondents had attained university level education, 15% had attained education up to college level, 10% had attained up to post graduate level while only 10% had attained education up to secondary level. Further the results revealed 45% of the respondents were at the supervisory level of management, 37.5% were at the middle level of management while 17.5% were at the senior level of management. Results also indicate that 37.5% had worked for a period between 6 to 10 years, 37.5% had worked for over 10 years, 15% had worked for a period between 2 to 5 years while 10% had worked for less than one year. Results also revealed that 94.74% the respondents were aware of the business automation initiative while only 5.26% were not aware.

One of the study objectives was to determine the organization related challenges that face business automation project in KRA. Results indicated that majority of the respondents agreed with the statements that unsupportive repacking of existing projects to new strategy, inadequate resources to finance, inadequate training on the new enterprise resource planning software system, lack of proper IT infrastructure, lack of enhanced IT security, long periods of planning before the project is executed and lack of adequate project management resources hindered business automation projects in KRA. This implies that organization related challenges hindered business automation projects in KRA. Results from the key interview guide indicated that the organizational related challenges included inadequate resources to finance, inadequate skills, poor infrastructure, long procurement process and lack of adequate project management

resources. The relationship between business automation and organization related challenges were negative and significant as supported by p values of 0.02 and beta coefficient of -0.189. This implies that an increase in organization related challenges would lead to decreased implementation of business automation.

The second objective of the study was to determine the environmental related challenges that face business automation project in KRA. Results indicated that majority of the respondents agreed with the statements that resistance to change by employees, power of suppliers, complexity in leadership, resistance from stakeholders and the legal and regulatory framework, poor communication, organizational politics, organizational culture and organizational structurehindered business automation projects in KRA. This implies that environmental related challenges hindered implementation of business automation projects in KRA. Results from the key interview guide indicated that the environmental related challenges included resistance to change by the staff and senior stakeholders, poor communication, political interruption and organizational culture. The relationship between business automation and environmental related challenges were negative and significant as supported by p values of 0.061and beta coefficient of -0.083. This implies that an increase in environmental related challenges would lead to decreased implementation of business automation.

The third objective of the study was to establish how Kenya Revenue Authority plans to mitigate these problems. Results indicated that majority of the respondents agreed with the statements that hiring new staff with the requisite skills, improved project management style, change of organizational structure, smooth flow of information, capacity building where employees with limited skills were trained on how to use the system, incorporating of the automation strategy into its employees' daily job descriptions and political support has helped to mitigate the challenges encountered during implementation of business automation at KRA.   This implies that better mitigation strategies can enhance effective implementation of business automation projects in KRA. Results from the key interview guide indicated that KRA initiatives under the automation project included implementation of a disaster recovery and business continuity, improvement of IT infrastructure, enhanced IT Security, implement a KRA-wide Common Cash Receipting System (CCRS), implement Business Intelligence System and Performance Dashboard, facilitate e-learning, having team buildings sessions with the staff to sharpen their skills and incorporating business automation strategy into the employees' daily job descriptions. The relationship between business automation and mitigation strategies was positive and significant as supported by p values of 0.045 and beta coefficient of 0.123. This implies that better mitigation strategies would lead to better implementation of business automation.

## 5.2Discussion

### 5.2.1 Organization Related Challenges

One of the study objectives was to determine the organization related challenges that face business automation project in KRA. Results indicated that majority of the respondents agreed with the statements that unsupportive repacking of existing projects to new strategy, inadequate resources to finance, inadequate training on the new enterprise resource planning software system, lack of proper IT infrastructure, lack of enhanced IT security, long periods of planning

before the project is executed and lack of adequate project management resources hindered business automation projects in KRA. This implies that organization related challenges hindered business automation projects in KRA. Results from the key interview guide indicated that the organizational related challenges included inadequate resources to finance, inadequate skills, poor infrastructure, long procurement process and lack of adequate project management resources. The relationship between business automation and organization related challenges were negative and significant as supported by p values of 0.02 and beta coefficient of -0.189. This implies that an increase in organization related challenges would lead to decreased implementation of business automation.

These findings agree with those of Njoki (2011) who sought to establish the challenges faced in implementing strategic change in Kenya Revenue Authority (KRA). Findings in this study revealed that the main challenges faced by KRA in implementing strategic change broadly fall under the following categories: unsupportive repacking of existing projects to new strategy, complexity in leadership and resistance to change. The findings also agree with those of Wandera (2012) who sought to establish the challenges faced by KEMRI in the implementation of automation strategy. KEMRI faced several challenges in its automation strategy implementation including inadequate resources to finance the implementation of the automation strategy, high resistance from staff who were meant to be the implementing agents but preferred status quo, Inadequate office and limited training on the new Enterprise Resource Planning software system.

The findings agree with those of Mukhongo (2013) who sought to establish the challenges of implementing the ICT strategy at the KRA and determining the measures necessary to overcome the challenges established in that organization. The study had both the conceptual and contextual argument where strategy implementation and its inherent challenges are discussed with specific reference to ICT. KRA as organization was discussed to bring out its mandate and its operating environment. It was found from the study that KRA faces challenges in implementing the ICT strategy both from internal and external factors. Internal factors relate to resources, organization structure, skills and knowledge and operationalization and institutionalization of the strategy. External factors relate to power of suppliers, resistance from stakeholders and the legal and regulatory framework in which the organization operates. Overall it was concluded that KRA has been able to mitigate some of the challenges through deliberate initiatives in the respective corporate plans. The study recommends that further research is undertaken on the subject of ICT strategy implementation in other similar organizations.

## 5.2.2 Environmental Related Challenges

The second objective of the study was to determine the environmental related challenges that face business automation project in KRA. Results indicated that majority of the respondents agreed with the statements that resistance to change by employees, power of suppliers, complexity in leadership, resistance from stakeholders and the legal and regulatory framework, poor communication, organizational politics, organizational culture and organizational structure hindered business automation projects in KRA. This implies that environmental related challenges hindered implementation of business automation projects in KRA. Results from the

key interview guide indicated that the environmental related challenges included resistance to change by the staff and senior stakeholders, poor communication, political interruption and organizational culture. The relationship between business automation and environmental related challenges were negative and significant as supported by p values of 0.061and beta coefficient of -0.083. This implies that an increase in environmental related challenges would lead to decreased implementation of business automation.

The findings agree with those of (Maurer 2009) that Fortune 500 executives indicated that resistance was the primary reason changes failed while 80 percent of the chief information officers said that resistance – not a lack of technical skills or resources – was the main reason why technology projects failed. It is that soft, emotional human reaction of resistance that matters (Maurer 2009). The findings also agree with those of Mukhongo (2013) who sought to establish the challenges of implementing the ICT strategy at the KRA and determining the measures necessary to overcome the challenges established in that organization. It was found from the study that KRA faces challenges in implementing the ICT strategy both from internal and external factors. Internal factors relate to resources, organization structure, skills and knowledge and operationalization and institutionalization of the strategy. External factors relate to power of suppliers, resistance from stakeholders and the legal and regulatory framework in which the organization operates.

In addition, the changing economic, technological and operational environment played a role in advocating for the change process. There are a number of forces that have driven the change process in the Kenya Revenue Authority. There has been pressure for more revenue from the treasury. As the economy and population grows, more and more services are demanded by citizens from the government. This pressure is inevitably felt by the authority being the main revenue collection agency. There have also been rapid developments in the ICT (Bett, 2012).

These pressures and challenges have made KRA see the need for enhancement of professionalism in revenue administration processes. KRA has increasingly introduced changes in its activities every succeeding year through reform strategies which are enunciated in its three-year corporate plans. KRA's second corporate plan included strategies to address these challenges and it actuated the Revenue Administration(Bett, 2012).

Further, the findings agree with those of Kiplagat (2008) who sought to identify the challenges encountered in implementing their strategies and to establish measures taken by the Authority to cope with these challenges faced during strategy implementation. Results revealed that to a larger extent, the study found out that the Corporate strategy itself, organizational politics, structure and culture, Government decisions, inadequate resources, inadequate communication, uncontrollable factors, resistant to change as the major challenges encountered during implementation of strategies.

### 5.2.3 Mitigation Strategies

The third objective of the study was to establish how Kenya Revenue Authority plans to mitigate these problems. Results indicated that majority of the respondents agreed with the statements that hiring new staff with the requisite skills, improved project management style, change of organizational structure, smooth flow of information, capacity building where employees with

limited skills were trained on how to use the system, incorporating of the automation strategy into its employees' daily job descriptions and political support has helped to mitigate the challenges encountered during implementation of business automation at KRA.   This implies that better mitigation strategies can enhance effective implementation of business automation projects in KRA. Results from the key interview guide indicated that KRA initiatives under the automation project included implementation of a disaster recovery and business continuity, improvement of IT infrastructure, enhanced IT Security, implement a KRA-wide Common Cash Receipting System (CCRS), implement Business Intelligence System and Performance Dashboard, facilitate e-learning, having team buildings sessions with the staff to sharpen their skills and incorporating business automation strategy into the employees' daily job descriptions. The relationship between business automation and mitigation strategies was positive and significant as supported by p values of 0.045 and beta coefficient of 0.123. This implies that better mitigation strategies would lead to better implementation of business automation.

The role of IT in the reforms cannot be understated. KRA's capacity to receive, access and process data in a seamless and integrated manner and thereby provide efficient services to stakeholders and achieve higher levels of taxpayer compliance is reliant on the automation of revenue administration at all levels. However, at the inception of the reform process, KRA's Information Technology (IT) systems were found not to meet even basic operational and management requirements. The systems had been developed independently with little thought given to the advantages of integrating them or to share information. They therefore did not support efficient data processing, proper staff utilization, and they did not provide adequate management information. Additionally, the systems lacked requisite supporting infrastructure (Kenya Revenue Authority, 2008).

In view of the inherent inadequacies of the ICT systems, KRA embarked on a comprehensive business automation project whose aim was to modernize and integrate business systems in order to not only promote efficiency and effectiveness but to also enhance tax compliance. In this regard, the ICT department embarked on development of a KRA-wide ICT strategy aimed at identifying an ICT Road map that embraced integrated business architecture (Kenya Revenue Authority, 2008). The automation project would implement leading-edge integrated IT solutions capable of servicing all the needs of both internal and external stakeholders to ensure a 'Single View of the Taxpayer' across all KRA functions, for effective and efficient revenue collection and operational excellence(Kenya Revenue Authority, 2008).

These findings agree with those of Aliet (2008) who sought to determine how KRA implemented the Customs Reforms and Modernization Program, the challenges KRA encountered in implementing the reforms and modernization initiatives and how KRA responded to those challenges. The findings indicated that the greatest challenge KRA encountered was resistance to change followed by lack of requisite skills. Other challenges included lack of resources and a supportive telecommunication infrastructure. KRA responded to these challenges by training and sensitizing the staff and stakeholders and hiring new staff with the requisite skills. They also sought political support and improved their project management style. The findings also agree with those of Gakii (2010) who sought to determine the types of public management reforms, the

effects of public management reforms, and the challenges of implementing public management reforms. The study found that the reforms included automating processes, integration of systems, business process re-engineering and enhancement of tax-payer services.

## 5.3 Conclusions

This section presents the conclusions of the key findings of the study based on the already reported research objectives**.**

### 5.3.1 Organization Related Challenges

One of the study objectives was to determine the organization related challenges that face business automation project in KRA. It was possible to conclude that organizational related challenges hindered implementation of business automation at KRA. Results revealed that unsupportive repacking of existing projects to new strategy, inadequate resources to finance, inadequate training on the new enterprise resource planning software system, lack of proper IT infrastructure, lack of enhanced IT security, long periods of planning before the project is executed and lack of adequate project management resources hindered business automation projects in KRA. The findings imply that organization related challenges have a significant effect on business automation.

### 5.3.2 Environmental Related Challenges

The second objective of the study was to determine the environmental related challenges that face business automation project in KRA. It was possible to conclude that environmental related challenges hindered implementation of business automation at KRA. Results revealed that resistance to change by employees, power of suppliers, complexity in leadership, resistance from stakeholders and the legal and regulatory framework, poor communication, organizational politics, organizational culture and organizational structure hindered business automation projects in KRA. The findings imply that environmental related challenges have a significant effect on business automation.

### 5.3.3 Mitigation Strategies

The third objective of the study was to establish how Kenya Revenue Authority plans to mitigate these problems. It was possible to conclude that better mitigation strategies enhance effective implementation of business automation projects in KRA. Results revealed that hiring new staff with the requisite skills, improved project management style, change of organizational structure, smooth flow of information, capacity building where employees with limited skills were trained on how to use the system, incorporating of the automation strategy into its employees' daily job descriptions and political support has helped to mitigate the challenges encountered during implementation of business automation at KRA.  The findings imply that mitigation strategies have a significant effect on business automation.

## 5.4: Recommendations

## 5.5.1 Recommendations for Improvement

### 5.5.1.1 Organization Related Challenges

In line with study results, it is recommended that KRA should hire new staff with the requisite skills, improve project management style, incorporate capacity building programmeswhere employees with limited skills were trained on how to use the system and incorporate the automation strategy into its employees' daily job descriptions so as to curb the organizational related challenges that it faces when implementing business automation.

The study also recommended that KRA should equip their offices with the right IT infrastructure and enhance the IT security. Further, the study recommended that KRA should restructure its budget programme and channel more financial resources to business automation process so as to speed its implementation.

### 5.5.1.2 Environmental Related Challenges

The study recommends that KRA should adopt measures that will change the organizational structure and culture. In addition, KRA should ensure smooth flow of information to its entire staff, particularly about business automation, so as to sell new ideas to everyone. KRA can also involve the staff in decision making so as to make them feel part of the changes that are taking place and this would help in quick implementation of business automation. The study also recommended that KRA should seek political support to avoid interference from the political arena by persons who would resist change due to personal interests.

## 5.5.2 Recommendations for Further Studies

The study recommends that further investigation be done on the benefits of business automation process in Kenya Revenue Authority. The study also recommends that a similar study be undertaken in other state agencies such as Central Bank and various state corporations. The study can also be replicated in non-governmental organizations such as the United Nations.

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