

**CHALLENGES FACING KENYA MEDICAL RESEARCH INSTITUTE IN
THE IMPLEMENTATION OF THE AUTOMATION STRATEGY**

BY

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DECLARATION

STUDENT'S DECLARATION

I declare that this project is my original work and has never been submitted for a degree in any other university or college for examination/academic purposes.

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SUPERVISOR'S DECLARATION

This research project has been submitted for examination with my approval as the University Supervisor.

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DEDICATION

I dedicate this work to my family and friends for the support they gave me in the completion of this project.

ACKNOWLEDGEMENTS

I take this opportunity to give thanks to the Almighty God for seeing me through the completion of this project.

The work of carrying out this investigation needed adequate preparation and therefore called for collective responsibility of many personalities. The production of this research document has been made possible by invaluable support of many people. While it is not possible to name all of them, recognition has been given to a few. I am greatly indebted to my supervisor Prof. Ogutu for his professional guidance, advice and unlimited patience in reading through my drafts and suggesting workable alternatives, my profound appreciation to you.

Thank you all. May the Almighty God bless you.

LIST OF ACRONYMS

KEMRI	Kenya Medical Research Institute
ERP	Enterprise Resource Planning

ABSTRACT

Strategy implementation is one of the biggest challenges in modern day strategic management in an organization because strategic decisions influence the way organizations respond to their environment, it is very important that a firm makes strategic decisions and define strategy in terms of its function to the environment. The objective of this study was to establish the challenges faced by KEMRI in the implementation of automation strategy. The specific objectives included: determination of the challenges faced by Kenya Medical Research Institute in implementation of automation strategy and the establishment of what the Kenya Medical Research Institute did to overcome the challenges. This study adopted a case study since the unit of analysis was one organisation. 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. KEMRI also established an implementation committee which comprised of members from different departments who were put in charge of monitoring progress of the automation strategy hence promoting automation strategy implementation. To deal with these challenges, KEMRI ensured smooth flow of information by ensuring that all employees were well communicated to on matters of the automation strategy. To deal with limited employee skills on ERP system, KEMRI invested into capacity building where employees with limited skills were trained on how to use the system. It also ensured successful automation strategy by incorporating the automation strategy into its employees' daily job descriptions which meant it became part of employees' evaluation key deliverable indicator.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

According to Jauch and Glueck (1984), strategy is a unified and integrated plan that relates the strategic advantages of the firm to the challenges of the environment and that is designed to ensure that the basic objectives of the enterprise are achieved through proper execution by the organization. Pearce and Robinson (2007) defines strategy as the company's "game plan" which results in future oriented plans interacting with the competitive environment to achieve the company's objectives. Strategy which is a fundamental management tool in any organization is a multi dimensional concept that various authors have defined in different ways. Thompson (1993) defined it as the match between an organization's resources, skills and the environmental opportunities as well as the risks it faces and the purposes it wishes to accomplish. Strategy is at the heart of strategic management as it helps an organization to plan, formulate and implement various tasks in its attempts to prosper and attain its objectives and goals. Strategy can help a firm establish long term direction in its development and behavior (Grant, 2002). It is meant to provide guidance and direction for the activities of the organization.

Since strategic decisions influence the way organizations respond to their environment, it is very important that a firm makes strategic decisions and define strategy in terms of its function to the environment (Hendry and Kiel, 2004). The purpose of strategy is to provide directional cues to the organization that permit it to achieve its objectives while responding to the opportunities and threats in the environment (Piercy, 2002). Equally important, a strategy serves as a vehicle for achieving consistent decision making across different departments and individuals. For a strategy

to be successful, it needs to be well implemented by planning in time how different challenges can be encountered.

Automation strategy has been used at Kenya Medical Research Institute (KEMRI) to gain a competitive advantage by ensuring the organization's activities are being performed in the best way possible and focus on excellence in whatever the organization does to ensure efficiency in the operations. This goes a long way in reducing the inefficiencies and accuracy among staff in the delivery of services to the organization. The automation strategy ensures that employees produce at optimum since there are few wastes in terms of time and resources.

1.1.1 Concept of Strategy Implementation

According to Mintzberg (1996), implementation means carrying out the predetermined plans. Some strategies are planned and others just emerge from actions and decisions of organizational members. Strategy implementation is concerned with the translation of strategy into organizational action through appropriate structure and design, resource planning and the management of strategic change (Johnson and Scholes, 2002). When considering implementation, questions relating to who should be responsible for carrying out the predetermined strategic plans, what the structures in place are and the changes necessary must be addressed.

Strategic implementation is thus putting strategy into action. The way in which the strategy is implemented can have a significant impact on whether it will be successful or not. In most cases, different people from those who formulated it do the implementation of the strategy. For this reason, care must be taken to communicate the strategy and the reasoning behind it. Otherwise, the implementation might not succeed if the strategy is misunderstood or if the affected parties

resist its implementation because they do not understand why the particular strategy was selected (Thompson, 1993).

Mintzberg (1996), a strategy has little effect on an organization's performance until it is implemented and as Hendry and Kiel, (2004) claims; a strategic plan unimplemented but kept in a cabinet is a great source of employee negativity. Thus, putting the strategy into effect and getting the organization moving in the direction of strategy accomplishment calls for a fundamentally difference set of managerial tasks and skills (Johnson and Scholes, 2002). Whereas crafting strategy is largely an entrepreneurial activity, implementing strategy is primarily an internal administrative activity. Whereas strategy formulation entails heavy doses of visions, analysis, and entrepreneurial judgment, successful strategy implementation depends upon the skills of working through others, motivating, culture-building and creating strong fits between strategies and how organization does things, ingrained behavior does not change just because a new strategy has been announced. Implementing strategy poses the tougher, more time-consuming management challenge.

Strategy implementation process might involve changes within the overall culture, structure and management system of the entire organization except when such drastic corporate wide changes are needed, however the implementation of a strategy is typically conducted by middle level and lower level managers with review by top management. Strategy implementation often involves day to day decisions in resource allocation.

Organizations seem to have challenges while implementing their strategies, however. Research has revealed a number of problems in strategy implementation such as: weak management roles in implementation, a lack of communication, lacking a commitment to the strategy, unawareness

or misunderstanding of the strategy, unaligned organizational systems and resources, poor coordination and sharing of responsibilities, inadequate capabilities, competing activities, and uncontrollable environmental factors (Beer and Eisenstat, 2000). The implementation of any strategy faces many challenges ranging from resistant to change to inadequate resources. In the current turbulent economic times, firms in Kenya operate under increasing competitive and ever-changing environment which puts them under pressure to continually review their strategic plans or formulate new ones to suit the existing trends. This study seeks to establish the challenges faced by KEMRI in the implementation of automation strategy.

1.1.2 Automation strategy

Automation is a business strategy where firms attempt to gain a competitive advantage by ensuring organization activities are being performed in the best way possible and focus on excellence in whatever the organization does to ensure efficiency in the operations (Hammer and Champy, 1993). Business Process Automation (BPA) solutions provide the tools, technologies, and infrastructure to automate complex business processes end to end in order to help increase competitive advantage and deliver tremendous value and visibility to your business, customers, and trading partners. This enables increased personal and organizational productivity by automating business policies and best practices, removing manual tasks, and eliminating error-prone reentry of information. BPA boosts individual and team efficiency which enables organizations to deliver results faster and with greater predictability. It also leads to better decision making by providing real-time insight into key business metrics and providing proactive alerts and notifications and gives broader insight into essential business processes critical to a business and provides real-time analytics that enable you to make better decisions faster. BPA further leads to enhanced operational excellence (Lucey, 2005).

Before automation of various services organizations normally experience problems in service quality such as delay in service, lack of accuracy in the data due to manual transfer, lack of consistency in handling data as a result of lack of standard and more so there is the problem of lack of completeness of data in many instances, (Lucey, 2005). Automation improves the staff productivity thereby improving customer satisfaction as the inefficiencies in the processes are eliminated or minimized.

1.1.3 Public Sector and Information and Communication Technology

To improving efficiency and transparency of government service delivery, government authorities may increase the frequency of interaction between citizens and government as well as improving the quality of the government services and trust. Information and Communication Technologies (ICTs) is the solution to build more reliable and efficient contact with citizens thereby ensuring quality service delivery. Like the developing and developed countries, Kenya also has been processing the various aspects of ICT, IT, and e-Government (Nikkhahan *et al.*, 2009).

According to Centeno *et al.*, (2005), ICT in government offices has become an explicit component of public sector reform, as an instrument to increase efficiency, strengthen competitiveness and enhance modernization. Automation facilitates quickly and easy location of data one is looking for by setting a task to search parameters. Once retrieved, the automation software automatically generates reports and sends the finished report to appropriate persons

1.1.4 Kenya Medical research Institute

Kenya Medical research Institute is a state corporation established through science and technology (Amendment)Act of 1979,as the national body responsible for carrying out health

research in Kenya it has grown from a humble beginning 27 years ago to become a regional leader in human research. The institute has a diverse range of modern and specialized health research facilities located within Nairobi and its research stations in Kisumu, Busia, Kericho, Kilifi, Malindi and Kwale. These facilities include research laboratories, research equipment, clinics and field research sites. Other facilities include the training centre, Graduate school and production Unit. Research activities are undertaken in the various units and coordinated by the research and Training Department. Research centers accommodate several research labs, projects and they are headed by Centre Directors. Centers also host collaborative projects /programmes which are semi-independent research or service entities involving international collaborators coordinated by KEMRI. KEMRI has been using semi automated system where some processes are computerized and some manual running parallel. This has been a challenge in the streamlining of activities that are interrelated. There was need to connect all the satellite centers and provide fast service and improve efficiency in the operations and be able to interlink the units.

1.2 Statement of the Problem

Strategy implementation is one of the biggest challenges in modern day strategic management in an organization. Johnson, Scholes and Whittington (2005) noted that it requires managers to develop appropriate strategies to specific circumstances of an organization. However, these circumstances change over time and it requires some clarity on the issues that are more important and critical than others and an ability to reconcile the conflicting pressures from the business environment, an organization's strategic capability and the expectations of stakeholders. The apathy to strategy implementation can be ascribed to several reasons, among them: greater likelihood of failures in implementing strategies; higher complexity in the process of strategy

implementation; strategy implementation being considered to be less glamorous than formulation; and practical difficulties in research involving middle-level managers for instance (Alexander, 1991). Strategy implementation is the most important stage in strategic management process because of it involves changing of the status quo which may bring about resistance if not well managed.

As global competition continues to intensify, companies are seeking new ways to improve products and services as a means of attracting and holding customers. KEMRI as an organization has not been spared. The organization embarked on a system upgrade so as to improve information management and sharing. The organization has is currently implementing an Electronic Resource Programme to assist it manage organizational wide resources.

Local studies have been done on the challenges of strategy implementation. For instance, Kiptugen (2003) did a study to determine the strategic responses of Kenya Commercial Bank to a changing competitive environment. Since he focused mainly on strategies that can be adopted in a competitive environment; the study failed to cover the processes involved in strategy implementation and challenges in the implementation phase. Muturi (2005) on the other hand did a study to determine the strategic responses of Christian churches in Kenya to changes in the external environment. He based his survey on evangelical churches in Nairobi. This study focused on a different context and concept from what the current study seeks to cover. Kamanda (2006) also did a study on Kenya Commercial Bank (KCB) with the objective of determining the factors that influence its regional growth strategy. His study, however, does not cover the issues of strategy implementation. Situma (2006) also covered KCB but focused on its turnaround strategy. Muguni (2007) studied the role of executive development in strategy implementation. His was a comparative study of KCB and National Bank of Kenya. The study also fails to

capture the process of strategy implementation process and challenges. Given the importance of these processes, this study seeks to fill the gap by seeking answers to the question on implementation of strategic decision. All these studies have concentrated on other organizations yet every organization is unique. This study therefore seeks to provide organizational specific information to by investigating the challenges facing Kenya Medical Research Institute in the implementation of the automation strategy. The research will seek to answer the following questions: What challenges is KEMRI facing in the implementation of automation strategy? What is KEMRI doing to overcome these challenges?

1.3 Research Objectives

The objectives of this study will be to establish the challenges faced by KEMRI in the implementation of automation strategy. The specific objectives will include:

- i) Determine challenges facing Kenya Medical Research Institute in implementation of automation strategy
- ii) Establish what the Kenya Medical Research Institute is doing to overcome the challenges.

1.4 Value of the study

The study will be of important to KEMRI management and managers in other industries and institutions especially on challenges of automation strategy implementation. It will help them understand the Challenges of automation strategy implementation and how to overcome them.

The government Ministries and policy makers will also gain knowledge of the challenges faced by organizations in automation strategy implementation. This will be important in the

formulation of policies and procedures necessary in supporting automation process in organization. This may be in terms of taxation of automation hardware and software.

The study will be a source of reference material for future researchers on other related topics; it will also help other academicians who undertake the same topic in their studies. This study will be used as a source of reference by future scholars and academicians. In addition, it will help them by providing areas for further research where more research needs to be done.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the related literature on the subject under study presented by various researchers, scholars, analysts and authors. It will also review literature with respect to the research objective on the challenges faced by KEMRI in the implementation of automation strategy. The specific areas covered here are concept of strategy implementation, effective strategy implementation process and finally the challenges of strategy implementation.

2.2 Concept of Strategy Implementation

Mintzberg (1996), implementation means carrying out the predetermined plans. Some strategies are planned and some others just emerge from actions and decisions of organizational members. Strategy implementation is concerned with the translation of strategy into organizational action through appropriate structure and design, resource planning and the management of strategic change (Johnson and Scholes, 2002). When considering implementation, questions relating to who should be responsible for carrying out the predetermined strategic plans, what are the structures in place and what changes are necessary must be addressed. Strategic implementation is thus putting strategy into action. The way in which the strategy is implemented can have a significant impact on whether it will be successful or not. In most cases, different people from those who formulated it do implementation of the strategy. For this reason, care must be taken to communicate the strategy and the reasoning behind it. Otherwise, the implementation might not succeed if the strategy is misunderstood or if the affected parties resist its implementation because they do not understand why the particular strategy was selected (Thompson, 1993).

Strategy implementation has attracted much less attention in strategic and organizational research than strategy formulation or strategic planning. Alexander (1991) suggests several reasons for this: strategy implementation is less glamorous than strategy formulation, people overlook it because of a belief that anyone can do it, people are not exactly sure what it includes and where it begins and ends. Furthermore, there are only a limited number of conceptual models of strategy implementation. In the world of management, increasing numbers of senior people are recognizing that one of the key routes to improved business performance is better implementation (Renaissance Solutions, 1996). However, at the same time, it is also understood that implementation is one of the more difficult business challenges facing today's managers (Piercy, 1992).

Implementing strategies successfully is about matching the planned and the realizing strategies, which together aim at reaching the organizational vision. The components of strategy implementation communication, interpretation, adoption and action are not necessarily successive and they cannot be detached from one another. Okumu and Roper (1998) observe that despite the importance of the strategic execution process, far more research has been carried out into strategy formulation rather than into strategy implementation, while Alexander concludes that literature is dominated by a focus on long range planning and strategy content rather than the actual implementation of strategies, on which "little is written or researched (Alexander, 1985). More practical problems associated with the process of strategy implementation, meanwhile, include communication difficulties and "low" middle management skill levels (Otley, 2001).

2.3 Effective Strategy Implementation

Strategic decisions determine the organizational relations to its external environment, encompass the entire organization, depend on input from all of functional areas in the organization, have a direct influence on the administrative and operational activities, and are vitally important to long-term health of an organization (Grant, 2000). Strategies must be well formulated and implemented in order to attain organizational objectives. Thompson (1993) determined that the strategy implementation process included the many components of management and had to be successfully acted upon to achieve the desired results. Here, the critical point is that effective and successful strategy implementation depends on the achievement of good “fits” between the strategies and their means of implementation.

Chakravarthy and White (2001) have taken into consideration that no matter how effectively a company has planned its strategies, it could not succeed if the strategies were not implemented properly. Hendry and Kiel (2004) also clarified that the more ineffective the top management decisions, the more ineffective are the choices made at lower levels of management. Similarly, if top management's strategic choices tend to be successful, it reflects favorably on choices made in other parts of the organization. Simons (1994) refer to three categories of factors that affected strategic decision-making process: environmental factors; organizational factors; and decision-specific factors. Here, environmental factors mean external agents such as national culture, national economic conditions, and industry conditions. Organizational factors refer to organizational structure, organizational culture, structure of decision making bodies, impact of upward influence, and employee involvement. Decision-specific factors can be explained as time, risk, complexity, and politics. According to Porter (1980) strategists must assess the forces affecting competition in their industry and identify their company's strengths and weaknesses,

then strategists can devise a plan of action that may include first, positioning the company so that its capabilities provide the best defense against the competitive force; and/or second, influencing the balance of the forces through strategic moves, thereby improving the company's position; and/or third, anticipating shifts in the factors underlying the forces and responding to them, with the hope of exploiting change by choosing a strategy appropriate for the new competitive balance before opponents recognize it.

Petersen and Welch (2000) noted two dimensions of strategy implementation: structural arrangements, and the selection and development of key roles. Kaplan and Norton (2004). The quality of people as skills, attitudes, capabilities, experiences and other characteristics required by a specific task or position. Structure refers to the way in which tasks and people are specialized and divided, and authority is distributed; how activities and reporting relationships are grouped; the mechanisms by which activities in the organization are coordinated Systems refer to the formal and informal procedures used to manage the organization, including management control systems, performance measurement and reward systems, planning, budgeting and resource allocation systems, and management information systems. Staff refers to the people, their backgrounds and competencies; how the organization recruits, selects, trains, socializes, manages the careers, and promotes employees. Skills refer to the distinctive competencies of the organization; what it does best along dimensions such as people, management practices, processes, systems, technology, and customer relationships.

2.4 Challenges of Strategy Implementation

This section covers the challenges organization face during strategy implementation. The specific challenges discussed here include: leadership styles, resources availability, corporate structure and organization culture.

2.4.1 Leadership Style

Leadership is the process of persuasion, where an individual induces a group to pursue certain objectives. Effective leadership involves restructuring organizational architecture in a manner that motivates employees with the relevant knowledge to initiate value-enhancing proposals (Dubrin, 2001). Drucker (1994) captures an environmental scanning analysis that depicts leadership as that, which should manage the fundamentals like people, inflation among others. Strategic leadership should ensure that values and culture within an organization are appropriate for satisfying key success factors. This should lead to environmental-value-resources (E-V-R) congruence. Bartlett and Goshal (1996) recognize the role of middle managers, arguing they are the key actors who have a pivotal role in strategic communication. They talk about middle managers as threatened silent resistors whose role needs to change more towards that of a “coach”, building capabilities, providing support and guidance through the encouragement of entrepreneurial attributes. So, if they are not committed to performing their roles the lower ranks employees will not be provided support and guidance through encouragement of entrepreneurial attributes. In addition to the above, another inhibitor to successful strategy implementation that has been receiving a considerable amount of attention is the impact of an organization’s existing management controls (Langfield-Smith, 1997) and particularly its budgeting systems (Marginson, 2002).

Successful strategic plan implementation requires a large commitment from executives and senior managers. Therefore, planning requirement which may be done even at departmental levels requires executive support. Executives must lead, support, follow-up and live the results of strategic planning implementation process. According to Healthfield (2009), without commitment of senior executives, participants feel fooled and misled. This complements what

Rap (2004) claims that the commitment to the strategic direction is a prerequisite for strategy implementation, so top managers have to show their dedication to the effort. To implement strategy successfully, senior executives must not assume that lower level managers have the same perceptions of the strategic plan and its implementation, its underlying rationale, and its urgency. Instead, they must assume they don't, so executives must persuade employees of the validity of their ideas. This notwithstanding what Chris Ahoy (1998) argues; that upfront commitment by leaders include an adherence to the full and thorough process of strategic planning which must culminate in implementing programs and services and commit allocations to meet the objectives of the strategic plan at a level that is doable for the organization and the level of activity.

2.4.2 Availability of Resources

All organizations have at least four types of resources namely: financial, physical, human resources and technological resources (Thompson, 1990). These resources are available to an organization as simple tangible resources (money, human resources and infrastructure) or intangible resources such as public power e.g. in law enforcement and tax collection or knowledge base. Resource based view to strategy management view knowledge, skills and experience of human resource as a key contributor to firm's bundle of resource and capabilities (Musyoka, 2008). Johnson et al. (2005) argues that putting strategy into action is concerned with ensuring that strategies are working in practice. It involves structuring an organization to support successful performance. This includes organizational structures, processes and relationships. It also involves enabling success through the way organization resources such as people, information, finances and technology support strategies.

As companies change and as skills expertise become recognized as a major asset of the firm, the heightened efforts in cultivating and enhancing them becomes significant part of development strategy (Saunders, 1994). During the process of strategy implementation, how relationships and beyond the organization are fostered and maintained will influence performance further while organizations and groups may be assumed as taking strategic actions, it is individuals who ultimately, in practical terms take action and are responsible for driving an organization or a group towards objective. Perhaps the most important resource of an organization is its people (Johnson and Scholes, 2003). Furthermore, organization is a social system relationship (formal and informal) among the people who individually and jointly subscribe to same goal(s) and to which they direct their actions. Where the needs of the individual and the demands of an organization are incompatible transactions and conflict are bound to occur and strategy implementation cannot be achieved (Mullins, 2005).

Recruitment and staff development strategies need to support the other factors. In addition aspects of job design, reward package and conditions of the labor market and the hopes and expectations of people (Saunders, 1994). Audits to assess human resources requirements to support strategies identify goal setting and performance appraisals, reward systems, competence based recruitment, training and development as key human resources activities known to help liable successful strategy implementation. Performance management is not only essential but it is processes should be adjusted to support changing strategies. Yasemin and Hussen (2005) found out that systems process and routines for organizing, allocating and developing new programs during implementation directly depend on human resources. A number of factors commonly prohibit effective resource allocation. These include an overprotection of resources too great an emphasis on short run financial criteria, organizational politics, vague strategy targets, a

reluctance to take risks and a lack of sufficient knowledge (David, 1997). Identifying the appropriate resources and competencies to support strategy implementation unless the organization is also able to allocate resources and control performance in line with strategy (Musyoka, 2008).

2.4.3 Corporate Structure

According to Robins and Coulter (2002), organization structure influences the type of strategy used by an organization. Bowman (1987) while comparing power structures of firms and those of the not for profit organizations (NFPs) argued that the later display a wide variety of power structures. NFPs evoke a strong ideological or normative commitment from their members. Mintzberg (1996) identified that strong ideology will lead to strong resistance to change and freedom of action is severely constrained. Structural designs typically begin with organizational chart. It pertains managers responsibilities, their degree of authority and the consideration of facilities, departments and decisions, tasks design and production technology. Whereas Hall et al. (2003) identifies three organizational structure variables (formality, complexity and centralization), Mintzberg (1979) comes up with five variables which have varying degree of formality, complexity and centralization. They include: simple structure, machine bureaucracy, professional bureaucracy, divisionalized form and autocracy. The structural design of the organization helps people to pull together activities that promote effective implementation (Musyoka, 2008)

The structure of the organization should be consistent with the strategy to be implemented. Moreover the nature of the organizations structure to be used in implementing strategy is influenced by the environment stability and the interdependence of the different units (Daft, 2000). Failure to address issues of the broad structural design of roles, responsibilities and lines

of reporting can at a minimum, constrain strategies development and performance (Johnson & Scholes, 2002; Koske, 2003). Disorder, friction, malfunctions or reduced performance results when managers use the wrong structure for the environment (Reuter, 1991). The structure of the organization should therefore be compatible with the chosen strategy and if there is incongruence adjustment will be necessary either for the structure or the strategy itself (Koske, 2003). Chandler (1962) pointed out this important relationship by arguing that ‘structure followed strategy’. Hax and Majluf (1991) stated that strategy and structure interact, strategy does influence structure but structure also constraints strategy alternatives. Learned et al (1969) states that structure of organizations in certain circumstances are unimportant e.g. small companies where an individual direct planning and execution of activities structure therefore applies I large organization where they have many people (Koske, 2003). Symptoms of an ineffective organizational structure include: too many levels of management, too many meetings attended by too many people, too much attention being directed toward solving interdepartmental conflicts, too large span of control and too many unachieved objectives (David, 1997).

2.4.4 Organization Culture

Organizational culture refers to the leadership style of managers – how they spend their time, what they focus attention on, what questions they ask of employees, how they make decisions; also the organizational culture (the dominant values and beliefs, the norms, the conscious and unconscious symbolic acts taken by leaders (job titles, dress codes, executive dining rooms, corporate jets, informal meetings with employees). Organizational culture is among the major issues, because the cultural dimension is central to all aspects of organizational behavior (Alvesson, 2002). If strategy implementation is going to realize its full potential of dramatically improving the way companies do business, changing of the organizational culture must be

considered an integral part of the process. Systems cannot be developed irrespective of the people that will be managing and operating those systems. One of the biggest reasons why some process strategy implementation projects do not achieve the level of success the organization expects is because the organization or functional manager did not deal with the issue of organization culture change. Greengard (1993) says that an organization should strive to involve the staff at all stages of the implementation process.

Woolridge and Floyd (1990) note “It can be much easier to think of a good strategy than it is to implement it”. Much of the shortcomings in the strategy area is attributable to failures in the implementation process rather than in the formulation of strategy itself (Beer et al., 1990; Woolridge and Floyd, 1990). The available literature in the 1990s on strategy implementation was examined in order to identify potential strategy implementation challenges. Of the 22 identified earlier by Alexander (1985) only 15 implementation problems have been cited.

Eisenstat (1993) indicates that most companies attempting to develop new organization capacities stumble over these common organizational hurdles: competence, coordination, and commitment. These hurdles can be translated into the following implementation problems: Coordination of implementation activities was not effective enough, Capabilities of employees were insufficient, Training and instruction given to lower level employees were inadequate, and Leadership and direction provided by departmental manager were inadequate.

Schmidt (1994) claims that a strategic change can be successfully implemented through a four-stage process: Assess the organizational capabilities and behavior needed to move from what the company is to what it needs to become, Determine what work processes would be required to implement the strategy and design current work processes to fit those requirements, Identify

what information needs the work processes generate, and determine what information systems and databases would be required to meet those needs and Determine which organizational structure would best support those work processes.

This strategic change model can be translated into the following implementation problems: Key implementation tasks and activities were not sufficiently defined, Information systems used to monitor implementation were inadequate, and overall goals were not sufficiently well understood by employees. Lingle and Schiemann (1994) found that there are six areas of vital importance to long term successful strategy implementation. These areas are: market, people, finance, operation, adaptability, and environment.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter defines the various stages and phases that were followed in completing the study. This section is an overall plan or structure conceived to aid the researcher in answering the raised research question. In this stage, most decisions about how research were executed and how respondents will be approached, as well as when, where and how the research was to be completed. Specifically the following subsections are included; research design, data collection and finally data analysis.

3.2 Research Design

This study adopted a case study since the unit of analysis is one organisation. A case study is an in-depth investigation of an individual, institution or phenomenon (Mugenda and Mugenda, 2003). The primary purpose of a case study is to determine factors and relationships among the factors that have resulted in the behavior under study. Since this study seeks to gather in-depth information regarding the challenges faced by KEMRI in the implementation of automation strategy, a case study design is deemed the best design to fulfill the objectives of the study. Several scholars have successfully used case study research design. Situma (2006) used case study research design to study the turnaround strategies adopted by KCB while Muguni (2007) used case study research design to investigate the role of executive development in strategy implementation.

3.3 Data Collection

In this study, emphasis was given to primary data which was collected using an interview guide. An interview guide is a set of questions that the interviewer asks when interviewing (Mugenda and Mugenda, 2003). It makes it possible to obtain data required to meet specific objectives of the study. The interviewees are the top managers including: Information Communications and Technology Manager, Center Director, Monitoring and Evaluation Head, Deputy Director Finance and Administration, Deputy Director Research and Training and Principal Internal Auditor since they are more versed with strategic issues for it is them that formulate and oversee the implementation of strategic decisions and are experienced in that area. To avoid duplicity of data obtained, the researcher selected six managers from KEMRI in the positions named above. The researcher administered the interview guides through personal interviews.

Given that those who were interviewed were not so many and the researcher was required to get in-depth information on issues surrounding strategy implementation challenges at KEMRI, interviews are regarded as the best method and the interview guide gives a clear guidance on what questions to ask.

3.4 Data Analysis

The data obtained from the interview guide was analyzed using qualitative analysis. Qualitative data analysis makes general statements on how categories or themes of data are related (Mugenda and Mugenda, 2003). The qualitative analysis was done using content analysis. Content analysis is the systematic qualitative description of the composition of the objects or materials of the study (Mugenda and Mugenda, 2003). It involves observation and detailed description of objects, items or things that comprise the object of study. The variables that were

to be used in the analysis were broadly classified into two: factors influencing strategy implementation and challenges in strategy implementation. Several researchers have successfully used content analysis in their studies. For example, Kiraithe (2011) used it in explaining the strategic change management at Kenya Police.

CHAPTER FOUR

DATA ANALYSIS, INTERPRETATIONS AND DISCUSSIONS

4.1 Introduction

This chapter presents analysis and findings of the study as set out in the research methodology. The results are presented on the challenges faced by KEMRI in the implementation of automation strategy. The specific objectives included: determining the challenges facing Kenya Medical Research Institute in implementation of automation strategy and establish what Kenya Medical Research Institute is doing to overcome the challenges. The study targeted a total of six managers from KEMRI. The chapter specifically covers general information of the study, challenges of distribution, response strategies and discussions. All the six targeted interviewees responded by scheduling and attending the interview thus giving a response rate of 100%. This excellent response rate was attained because of the researcher's aggressiveness in booking and attending the interviews in person. This response rate was excellent and representative and conforms to Mugenda and Mugenda (2003) stipulation that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

4.2 Background Information

The interviewees' were asked to indicate the progress made in the implementation of automation strategy at KEMRI. From the interviewees' responses, the automation strategy was well on course especially considering the fact that this was the second year since the implementation of the automation strategy started. The interviewees' indicated that the implementation progress had so far been good considering that some of the set short term goals had been achieved. Other

interviewees' however were of the view that progress had been a challenge since a number of automation projects were behind schedule due to various reasons amongst them being lack of fulfillment of some technical requirements prior to implementation of the automation projects, concurrent implementation of several automation projects and the inherent bureaucracy in KEMRI administrative and procurement processes.

The interviewees' were also asked to indicate the main drivers of automation strategy programmes at KEMRI. From the interviewees' responses, it was noted that there were various drivers of automation strategy programme. The main drivers of automation were the need to improve efficiency in the various KEMRI work processes, reduce costs in communication and to improve the work environment for staff. Specific drivers for automation strategy as indicated by the interviewees' included cumbersome filing system, cumbersome retrieval and tracking of records, save the organization some costs like on stationery, delayed and inefficient communication within the organization through hard copies, easing the reconciliation processes, increase the accuracy levels among staff in their work, and reduce the lead time.

The interviewees' were asked to indicate other external environment factors that had affected the automation strategy implementation at KEMRI. From the interviewees' responses, it was noted that the external factors that affected the strategy for automation implementation included limited funding from the Exchequer, downtimes on the ISP's fiber optic cable hence affecting availability of KEMRI Online services and delays in delivery of equipment to suppliers of ICT equipment from overseas. All these worked to slow down the pace at which the strategy was implemented.

The interviewees' were asked to indicate the influence of leadership at KEMRI on the automation strategy implementation. From the interviewees' responses, the interviewees

indicated the leadership especially the top management greatly supported the automation strategy implementation through provision of the necessary equipment, sharing with the employees their views about automation strategy and the reasons for its implementation. They also appointed project champion heads in each department including individuals who were not heads of department but had passion for technological advancement. This ensured that the automation strategy was all inclusive and encompassing.

The interviewees' were asked to indicate as to whether there was a system to monitor the progress of automation strategy implementation at KEMRI. From the interviewees' responses, it was apparent that KEMRI had put in place a system to monitor the progress of automation strategy implementation. This was done through setting of short term goals that the team was supposed to achieve with clear deliverables and measures. This ensured that the tasks were performed in accordance with the strategic goals and objectives of the automation strategy.

4.3 Challenges of strategy implementation

The study sought to establish from the interviewees' the challenges that KEMRI faced in the implementation of automation strategy. From the research findings, the interviewees indicated that KEMRI faced several challenges. On whether there had been some challenges during the implementation of automation strategy, the interviewees' indicated that the organization faced a fair share of challenges in the implementation of the automation strategy.

4.3.1 Inadequate resources

First, a major challenge included inadequate resources to finance the implementation of the automation strategy. The automation strategy required both software and hardware infrastructures which were quite expensive and the position was even made worse by the

depreciation of Kenyan currency against the United States Dollar and high inflation in the country. Due to currency depreciation, the infrastructure became more expensive than had been budgeted earlier.

The interviewees also indicated that inadequate office equipment hampered the implementation process of automation strategy at KEMRI. The existing hardware in some offices were very old and incompatible with the new ERP system. This meant that the employees had to share some equipment at one time or the other. This reduced the speed of automation strategy implementation hence the reason for behind schedule of some tasks.

The interviewees also indicated that the automation strategy suffered setbacks as a result of frequent power outages leading to loss of precious data and man hours during the implementation stage. The organization did not have enough power back-up equipment and standby power in case there were blackouts.

4.3.2 Staff Challenges

Another challenge faced in the implementation of the automation strategy at KEMRI as indicated by the interviewees included high resistance from staff who were meant to be the implementing agents. The interviewees indicated that staff were resistant to the automation strategy as they feared they would be laid off following the successful implementation of automation strategy. This led to some staff not actively participating in the automation strategy implementation process. However, to help fast track the implementation process, the interviewees indicated that KEMRI had to incorporate the automation strategy in the job descriptions and other performance indicators forming part of the employees' day to day duties.

The interviewees' indicated that another challenge facing automation strategy implementation at KEMRI involved limited training on the new Enterprise Resource Planning software system. This was partly attributed to limited financial resources and high resistance among employees. Many employees working with KEMRI were not conversant with the functioning of such software and as such it was necessary to train and update them on the usage of the software.

4.3.3 Other Challenges

Another challenge facing the implementation of the automation strategy at KEMRI as indicated by the interviewees' involved large size of the organization this made it difficult to launch the automation strategy in one phase. The interviewees indicated that the automation strategy had to be rolled out in phases in order to cover all the regional offices of the organization. As at the time of conducting the interviews for this study, some branches had just started rolling out the automation strategy and it was being hampered by the poor internet connection which slowed down the implementation speed.

The interviewees also indicated that since the automation system being introduced was internet based, unreliable internet services by the ISP provider hampered the implementation especially for branches outside Nairobi. The limited internet provision slowed down the speed at some branches with others being grounded. This meant that the activities could not be undertaken as earlier planned hence causing the unforeseen delays in the implementation.

The interviewees also indicated that KEMRI faced the challenge of high consultancy costs. The implementation of ERP system required the hiring of special services of the ERP expert to help in the roll out process. This cost continued to grow following the slow speed of roll out

especially caused by slow internet speeds and in some instances lack of it. This has led to the organization spending more than it had budgeted for the project.

The interviewees were asked to indicate the influence organization culture at KEMRI on automation strategy implementation. From the research findings, the interviewees indicated that the culture at KEMRI affected automation strategy implementation. Culture at KEMRI had been a challenge to the automation implementation strategy because the automation implementation targeted changing the KEMRI work culture from largely manual work processes to automated ones. For the employees who were not conversant with changes in technology and were content with status quo the organization worked closely and were not willing to embrace change.

4.4 Response to challenges by KEMRI

The interviewees' were asked to name a few strategies that KEMRI had employed to reduce the effects of the identified challenges on automation strategy implementation. Some of the responses were as follows:

4.4.1 Creation of awareness

First, the interviewees indicated that KEMRI leadership had tried to create 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. To achieve this, the organization enhanced its communication process by involving departmental heads in the implementation process who held meetings in their departments to communicate information from strategy formulation team to other employees. In addition, the organization employed use of Memos and emails to pass on information to all staff in the organization.

The respondents also indicated that another way that the management responded to challenges of automation strategy implementation was through facilitation of resources availability. The management enhanced resources available for the automation strategy implementation from other sources despite the diminishing funding from the Exchequer. These included the required hardware and software for the smooth roll out of the automation strategy. This ensured that resources required for the implementation were availed as and when required to reduce chances of strategy failure.

The management also responded by establishing an implementation committee which comprised of members from different departments who were in charge of monitoring progress of the automation strategy and ensuring that the activities progressed as scheduled. This ensured that the automation strategy was not derailed and stayed on course. This also promoted the level of accountability and responsiveness of the deferent departments since they had been represented on this committee.

4.4.2 Training, awareness and promotion of change process ownership

The interviewees also indicated that the management through the ICT department had facilitated the implementation of the automation strategy through training and awareness by ICT staff for all employees at all levels. The training equipped employees with knowledge on how the ERP shall be operating and helping out with any challenges experienced when using the system. This helped in acquiring the goodwill of the employees and commitment in the implementation process. This further played a big role in the reduction of employee resistance to the automation strategy.

To respond to challenges experienced in the automation strategy implementation, KEMRI management moved to assure all staff that the automation strategy was meant to improve efficiencies and effectiveness of the operations at the Organization and was not meant to declare anybody redundant. This motivated staff to work extra hard to ensure successful automation strategy implementation. KEMRI also put in place control by allocating user names and passwords to staff to help track the contribution and work done by each staff in the automation strategy.

4.5 Discussion of the findings

4.5.1 Challenges Faced by KEMRI in implementation of automation strategy

Strategy implementation at KEMRI faced several challenges. These included limited resources to finance strategy implementation, resistance from employees, software and hardware inadequacies and the large size of the organization all which slowed down the pace of automation strategy implementation. The experience at KEMRI in the implementation of the automation strategy is consistent with the suggestion of Grant (2000) who established that strategic decisions determine the organizational relations to its external environment, encompass the entire organization, depend on input from all of functional areas in the organization, have a direct influence on the administrative and operational activities, and are vitally important to long-term health of an organization as they enable the organization to create a strategic fit with its operating environment. Through the implementation of automation strategy, KEMRI was able to align itself with the changes in its operating environment and improve the efficiency and effectiveness. The accuracy levels among employees were improved and information management and storage improved.

From the study findings discussed above, the study established that KEMRI had planned and arranged for the automation strategy implementation prior to ensure successful strategy execution. As Chakravarthy and White (2001) noted, no matter how effectively a company has planned its strategies, it could not succeed if the strategies were not implemented properly. KEMRI did not leave anything to chance. First the committee encompassing employees from different departments were involved in the strategy formulation process to ensure inclusiveness. In addition, KEMRI ensured smooth flow of information by encouraging departmental meetings to discuss the planned automation strategy and why it was important to the organization. With such good prior arrangements, it was necessary for the reduction of resistance especially during implementation period.

Leadership of the organization plays an important role in the formulation and implementation of any strategy in an organization. This is because leadership provides direction and control of all activities that are to take place during strategy implementation. In addition, the leadership is solely responsible for all the happening at the organization. Strategic leadership should ensure that values and culture within an organization are appropriate for satisfying key success factors. As Dubrin (2001) discovered, effective leadership involves restructuring organizational architecture in a manner that motivates employees with the relevant knowledge to initiate value-enhancing proposals. This is true for KEMRI as the leadership were involved in the whole implementation processes by availing all the necessary resources required for the full implementation of the automation strategy. These findings are also consistent with Healthfield (2009), who argued that without commitment of senior executives, participants feel fooled and mislead while Rap (2004) claims that the commitment to the strategic direction is a prerequisite

for strategy implementation, so top managers have to show their dedication to the effort for successful strategy implementation in an organization.

Alvesson (2002) noted, organizational culture is a major issue, because of its centrality to all aspects of organizational behavior. In KEMRI, the organization culture had to change to ensure successful strategy implementation. If strategy implementation is going to realize its full potential of dramatically improving the way KEMRI managed its information and employee effectiveness and efficiency, changing of the organizational culture was considered as an integral part of the automation strategy implementation because systems could not be developed irrespective of the people that would be managing and operating those systems. Just like Greengard (1993) said, an organization strived to involve the staff at all stages of the implementation process through departmental meetings and including the deliverables on the automation strategy in each employees' job description and thus key deliverable indicator. With the inclusion of the automation strategy into daily job descriptions of the employees, the employees became more responsible and supportive to the automation strategy.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter entails the summary, conclusion and given recommendations based on the overall findings. The overall objective of this study was to determine the challenges facing Kenya Medical Research Institute in the implementation of automation strategy and establish what Kenya Medical research Institute is doing to overcome the challenges.

5.2 Summary of the findings

The study targeted six top managers at KEMRI who all participated in the study giving a response rate of 100%. The automation strategy was well on course especially considering the fact that this was the second year since the implementation of the automation strategy started. The implementation progress had so far been good considering that some of the set short term goals had been achieved. The main drivers of automation included the need to improve efficiency in the various KEMRI work processes, reduce costs in communication and to improve the work environment for staff. Specific drivers for automation strategy included cumbersome filing system, cumbersome retrieval and tracking of records, save the organization some costs like on stationery, delayed and inefficient communication within the organization through hard copies, easing the reconciliation processes, increase the accuracy levels among staff in their work, and reduce the lead time

The external factors that affected the strategy for automation implementation included limited funding from the Exchequer, downtimes on the ISP's fiber optic cable hence affecting availability of KEMRI online services and delays in delivery of ICT equipment by suppliers

from overseas. It was also apparent that KEMRI had put in place a system to monitor the progress of automation strategy implementation so as to allow the taking of the necessary corrective action before things ran out of hand. This was done through setting of short term goals that the team was supposed to achieve with clear deliverables and measures.

KEMRI faced several challenges in its automation strategy implementation. A major challenge included inadequate resources to finance the implementation of the automation strategy. Another challenge faced included high resistance from staff who were meant to be the implementing agents. Another challenge facing automation strategy implementation at KEMRI involved limited training on the new Enterprise Resource Planning software system. Inadequate office equipment also hampered the implementation process of automation strategy at KEMRI as the existing hardware in some offices was very old and incompatible with the new ERP 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. The management also responded to challenges of automation strategy implementation through facilitation of resources availability despite the diminishing funding from the Exchequer. The management also responded by establishing an implementation committee which comprised of members from different departments who were in charge of monitoring progress of the automation strategy. The management through the ICT department facilitated the implementation of the automation strategy through training and awareness by ICT staff for all employees at all levels.

5.3 Conclusion of the Study

From the findings, the study concludes that KEMRI faced many challenges in its automation strategy implementation. These included limited funding as the exchequer support kept on

diminishing from one year to another. In addition, due to limited funding from the Exchequer, KEMRI faced the challenge of inadequate resources to finance the implementation of the automation strategy. The resources available at its disposal for the implementation of the automation strategy were limited hence the management had to look for alternative sources of finance to ensure successful strategy implementation. The organization also faced a challenge of high resistance from staff who were meant to be the implementing agents. Employees felt like the automation strategy would render them redundant hence they did not want to have it implemented. Some employees were satisfied with the status quo and did not appreciate the change process. Another challenge included the huge size of the organization together with branches spread wide in the country which slowed down the implementation process.

To deal with these challenges, KEMRI adopted several strategies. In dealing with employee resistance, the organization ensured smooth flow of information by ensuring that all employees were well communicated to on matters of the automation strategy. At the strategy formulation process, the department representatives were incorporated in the committee which again cascaded information back on their departments so as to reduce employee resistance. To deal with limited employee skills on ERP system, KEMRI invested into capacity building where employees were trained on how to use the system. KEMRI also ensured successful automation strategy by incorporating the automation strategy into its employees' daily job descriptions which meant it became part of employees' evaluation key deliverable indicator. This ensured that employees worked hard to ensure successful strategy implementation.

5.4 Limitations of the Study

Being that this was a case study on one Institution the data gathered might differ from the challenges faced in the implementation of automation strategy. In addition, the Institution under

study is a government owned institution which may mean that it has a lot of political influence in strategy formulation and implementation. Different organizations in a different setting develop different strategies to respond to changes in the operating environment. The study however, constructed an effective research instrument that sought to elicit general and specific information on the challenges faced by KEMRI in the implementation of automation strategy and how the organization responded to these challenges.

The study faced both time and financial limitations. The duration that the study was to be conducted was limited hence exhaustive and extremely comprehensive research could not be carried on challenges of automation strategy implementation and responses since the strategy is still under implementation. Due to limited time the study could not collect information through observation over a period of time of automation strategy implementation to assess the challenges and how the organization responds to them. The study, however, minimized these by conducting the interview at the Institution's headquarter and with senior managers who had substantive experience about the organization since it is where strategies are made and rolled out to other office that operate on the strategic plan.

5.5 Suggestions for Further Research

The study suggests that further research should be done on the challenges faced by other parastatals in the implementation of automation strategy. The government has been in the fore front in the implementation of automation strategy as it seeks to implement e-government. This will help generalize the findings to the whole public sector organizations.

The researcher further suggests that a similar study be done on the private sector institutions for the purposes of benchmarking. Operating environment has become very volatile following the

high level of globalization effects on organizational performance. Organizations are forced to invent new ways of dealing with their current problems in order to survive the high competition. The external environment is turbulent and therefore further study should be done to show whether such organizations create a strategic fit between themselves and the environment by formulating relevant strategies and implementing them with regular reviews to deal with the ever changing environment.

5.6 Recommendations for Policy and Practice

The Kenyan public sector especially KEMRI should use the study to benefit the organization by properly formulating and implementing automation strategies especially on challenges of automation strategy implementation. It would help them understand the Challenges of automation strategy implementation and how to overcome them. The operating environment for the organization is ever changing calling for constant management of change so as to ensure the Institute meets its strategic objectives and delivers on its mandate.

The government and policy makers should get insight from the study in formulating policies regarding regulatory requirements to changes in the operating environment and the implementation of automation strategies especially in the government parastatals. This would help government and other organizations to ensure balanced and stable strategy implementation by overcoming the challenges of strategy implementation.

The academicians should use this study as a basis upon which further studies on challenges facing organizations in automation strategy implementation could be researched. The findings should contribute to professional extension of existing knowledge in challenges of automation strategy implementation and how to respond to these challenges. The wide area of strategic

management will be enhanced by providing literature on challenges of automation strategy by organizations to changes in their operating environment.

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APPENDIX: Interview Guide

CHALLENGES OF STRATEGY IMPLEMENTATION AT KENYA MEDICAL RESEARCH INSTITUTE

Section A: Challenges of strategy implementation

1. KEMRI has been implementing automation strategy in its operations. What is the progress like?
2. What were the main drivers of automation strategy programmes at KEMRI?
3. Has there been some challenges during the implementation of automation strategy? What are some of these challenges that came up during automation strategy implementation that had not been anticipated?
4. How has KEMRI dealt with these challenges to ensure successful automation strategy implementation
5. What other external environment factors have affected the automation strategy implementation at KEMRI?
6. How has the leadership at KEMRI facilitated smooth automation strategy implementation?
7. Has the resources affected the automation strategy implementation at KEMRI? Please explain
8. How has the culture at KEMRI affected automation strategy implementation?

9. Is there a system to monitor the progress of automation strategy implementation? What effects has this had on the implementation process?
10. What role has communication played in the automation strategy implementation? How effective has the communication been at KEMRI?
11. What are the other challenges you face in automation strategy implementation at KEMRI?
12. What are the possible solutions to the challenges of strategy implementation at KEMRI?

SECTION B: Measures being put in place by KEMRI

13. What has KEMRI done to ensure proper management of the automation strategy implementation?
14. What has KEMRI done to ensure inclusiveness and reduce resistance from staff and other stakeholders in the automation strategy implementation?
15. Are the middle level managers involved in strategy implementation at KEMRI? Please indicate their level of involvement and its effects on strategy implementation.
16. What has KEMRI done to improve the success rate of automation strategy implementation?