

## **Enterprise Resource Planning and Project Implementation in State Regulatory Agencies in Kenya**

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### **ABSTRACT**

*Over the past decade Project Management has acquired much significance and is gaining popularity in many organizations. According to modern business environment the feature that sets apart an organization and determines its success or failure, is basically its capability to suit its business process to new and innovative methods faster than the competition. A lot of organizations internationally and locally have adopted Enterprise resource planning (ERP) implementation as a major business direction determinant in modern world, unfortunately ERP implementation success estimations are substandard and very low. This study sought to assess the influence of enterprise resource planning on project implementation in state regulatory agencies in Kenya. In particular, the study was guided by four specific objectives; to determine the influence of top management support on project implementation in state regulatory agencies in Kenya, to evaluate the influence of project planning on project implementation in state regulatory agencies in Kenya, to establish the influence of technological adoption on project implementation in state regulatory agencies in Kenya and to determine the influence of project monitoring and evaluation on project implementation in state regulatory agencies in Kenya. The study was founded on several theories such as Pinto's model of project management, project life cycle model, technology acceptance model and resource based theory. In attempting to fulfill the aforementioned objectives the study utilized a descriptive and correlational research design. The study's target organizations comprised of all 25 state regulatory corporations in Kenya. The study used census and purposive sampling technique. This is because the 25 corporations were studied and from each corporation three respondents were handpicked, they included project manager, Business development manager and operational manager. The study collected primary data through administering questionnaires. The obtained data was further edited to ensure completeness; it was coded and computed into Statistical Package for Social Sciences (SPSS) for analysis. Analysis of the data was done using both descriptive and inferential statistics. The descriptive statistics used included the percentages, frequencies, mean and standard deviations while the inferential statistics used by the study included correlation and regression analysis. Correlation analysis was implemented to understand the nature and strength existing between variables whereas the regression analysis was done to find out the influence of the independent variables on the dependent variable. Findings from the study showed that improved ERP project implementation in state regulatory agencies in Kenya which was associated with effectiveness of critical success factors hence successful project implementation. These factors included top management support, project planning, technological adoption and monitoring and evaluation. The study concluded that top management support, project planning, technological adoption and monitoring and evaluation influenced the implementation of Enterprise Resource Planning projects in state regulatory agencies in Kenya. The study recommends that the top management should improve on their involvement on ERP implementation to enhance and better employees' attitude and also provide the resources required for ERP. There is need for the management of any business to continue providing required exposure to the top management in terms of*

*trainings in application software to realize the importance or positive contribution it may have on the organization's processes. This is expected to improve the management's ability and understanding towards information technology.*

**Key Words:** *Enterprise Resource Planning, Project Implementation, State Regulatory Agencies in Kenya*

## 1. INTRODUCTION

Nowadays, business design, individuals thoughts on the efficiency and reliability of information sharing and service provision in organizations has been greatly been altered by the use of information and communication technologies (ICTs) (Bhatnagar & Apikul, 2006). In fact according to a survey in 2011 by PWC (2012) many business owners want to use technology to attain business efficiency and at the same time be distinct. Organizations seek technology to innovate, automate, empower and collaborate so as to stand out against competitors. The idea of adopting information technology (IT) for competitive business advantage is nowadays a public platitude. The benefit of using information technology differ, from having improved strategies of efficiency and effectiveness in carrying out commercial duties, to significant replacements in the organizational design Chung, Hsu, Tsai and Huang (2012) proposed that major changes in type of job and the business design are greatly required for proper implementation of information technology. He surmises that information technology will in the future be the fundamental pillar of corporations. A high implementation of IT is a key factor in creating an efficient and effective business performance management system (Chung, Hsu, Tsai & Huang, 2012).

In Modern business environment, the feature that sets apart an organization and determines its successes or failures, is its capability in adapting to its businesses process to new and innovative methods faster than the competition. According to Pearlson and Saunders (2009), the process of adjusting to the changing market place compels the desire for business change and hence for effective project management. The fast paced change in the business environment makes it difficult to align IT aspects with business strategy. IT intensive projects have also become more complex due to the volatility of technology. This increases the likelihood of the completed process failing to meet its originally intended purpose. The purpose of improving software process is basically to enhance the product quality, increase productivity, and reduce the products cycle time. Managing projects to implement information systems is challenging. Many companies succumb to project failure due to various reasons. Both public and private organizations alike have been victims of information systems project failure (Kerzner & Kerzner, 2017). While this is true there have been some success stories where the organization benefits that a successful implementation system brings in terms of efficiency and effectiveness. Most projects fail to meet expected requirements in normal projects success criteria's: scheduling, budgeting, and performance criteria's. Although projects are increasingly called for, most fail in meeting expectations.

Such use of technology is in integration and convergence of corporate data in a bid to make operations efficient. This has led to many companies seeking superior information systems to provide real time data and decision making systems for instance ERP systems. As Addo & Helo (2011) put it, ERP systems enables the company make whole each of the fundamental business so as to enhance quality while upholding competitive position but with unsuccessful adoption of the system, the expected gains of enhanced productivity won't be experienced (Addo & Helo, 2011). ERP is a wide information system that directs organizational activities information, align transactions to ensure performance, ensure optimization using universally accepted practices. ERP has the potential to cover the entire value chain under a cohesive

platform supporting management decisions, information access, process support and improvements. According to Gardiner et al. (2010) many factors have been pointed out by various authors as determinants of ERP system adoption and implementation. The main factors that play a vital role that are given much attention include: the management commitment, organization resources, client participation and contribution and organizational culture. ERP software sector has one of the most extensive information technology markets globally. A new, recently undertaken study opines that the annual financial usage on ERP reached \$166 billion during 2012 (Kiarie, 2017). It is one of the most extensive, rapidly exponential and highly efficient sectors in the software department in this and forthcoming decade (Albano et al., 2009). Many different reasons exist to explain why an exponential increase of ERP projects should be anticipated (Stensrud, 2009) the ERP dealers continue to widen and improve the functions of their components by improving and developing new better functionalities to aid in business activities, this include automating sales, managing supply chain, orders handling, data storage, repair and maintenance among others. The current study sought to assess the ERP aspects in projects execution on parastatals in Kenya. Parastatals in the country are founded in regards to the law of State Corporations Act chapter 446 in Kenya's laws, which allow them to conduct activities and focus on certain duties so as to better services to customers. Nevertheless this study prioritized on the 25 regulatory corporations.

## **2. STATEMENT OF THE PROBLEM**

Many firms globally have turned to ERP implementation, it has grown to be a significant commercial driver in modern business, Nevertheless, ERP implementation success rates continue to disappoint and are still really low (Ge & Voss, 2009; Zabjek, 2009; Garg , 2010). Throughout the years a good number of theories and justifications have popped in an attempt to explain as to why most of the implementation projects have been unsuccessful. Therefore, these low success rates of ERP implementation have been looked into by researchers globally in an attempt to figure out the crucial success factors. Many scholars have established that improper management of the crucial success factors (CSF) related with implementing enterprise wide systems is responsible for the elevated rate of failure. ERP system utilization is bound to few massive firms in Kenya and specifically to commercial oriented parastatals, for instance Kenya energy ministry, KTDA parastatals which have adopted information systems as a tool to improve efficiency and effectiveness, visibility and transparency (Masika, 2012). ERP projects are capital intensive and whereas different companies adopt different methods while implementing ERP systems, they undergo many challenges and overcoming these challenges determine the level of success of the project.

Several studies have been conducted on ERP implementation in different contexts. For instance: Gajic, Stankovski, Ostojic, Tesic and Miladinovic (2014) study evaluated the impact of ERP implementation critical success factors—a case study in oil and gas industries. Madapusi and D'Souza (2012) study examined the influence of ERP system implementation on the operational performance of an organization. Motwani (2016) study examined the impact of Enterprise Resource Planning (ERP) implementation process on user's performance. Karimi (2017) study examined the effects of Enterprise Resource Planning Implementation on Organizational Performance in the Transport Industry in Kenya. According to the researcher, in regards to knowledge obtained, very few studies focusing on critical success factors of ERP project implementation in Kenya have been undertaken especially in state regulatory agencies in the country. This study will therefore go forward

seeking to fill this knowledge gap by assessing the influence of ERP on the implementation of projects in government regulatory institutions in Kenya.

### **3. OBJECTIVES OF THE STUDY**

The general objective of this study was to assess the influence of ERP on project implementation in state regulatory agencies in Kenya.

Specific objectives were:

- i. To establish the influence top management support on project implementation in state regulatory agencies in Kenya.
- ii. To determine the influence of project planning on project implementation in state regulatory agencies in Kenya.
- iii. To evaluate the influence of technological adoption on project implementation in state regulatory agencies in Kenya.
- iv. To determine the influence of project monitoring and evaluation on project implementation in state regulatory agencies in Kenya.

### **4. THEORETICAL REVIEW**

Theoretical review is the analysis of theoretical foundations that supports any study. A theoretical research bases its findings on available theories and hypothesis; meaning, practical application does not exist in the research, while an empirical research bases its findings on the verification by means of experiments, experiences and observations. This study was founded on both theory and empirical literatures. Ensuing are the theories upon which this study was founded upon. They are Pinto's model of project management, project life cycle model, technology acceptance model and resource based theory.

#### **4.1 Pinto's Model of Project Management**

Between the years of 1987 and 1990, Pinto and many other authors released a variety of writings on critical success factors. He went on to document the popular and globally known 10 critical success factors. Pinto made use of a fifty-item instrument known as Project management Profile (P.I.P) used to evaluate a project's score on each of the ten factors while compared to over 400 projects studied. The 10 critical success factors identified by Pinto (1986) are listed as follows:

“Project mission –clarifying of targets and goals, Top management support – managers readiness to give essential funds, Project schedule/plans, Client consultation – effective communication and consultations with all stakeholders, Personnel – ways in which the employees are recruited, selected and necessary training given to the project team, Technical tasks – availability of the required technology and expertise to accomplish the specific technical action steps, Client acceptance – the act of “selling” the final project to its intended users, Monitoring and feedback – timely provision of comprehensive control information at each stage in the implementation process, Communication – provision of an appropriate network and necessary data to all key actors in the project management and troubleshooting – ability to handle unexpected crises and deviations from plan” (Pinto, 1986).

The initial seven factors can be presented in a steady critical manner, but the remaining three factors should by all means be presented at all point during implementation. Specific factors are stressed upon throughout the project as it goes along its life cycle. The first three factors (mission, top management support and schedule) are connected to the “planning phase” of project management while the remaining seven are involved with the execution stage of the

project life cycle. Both strategic and tactical are crucial for proper and effective project management, thus their need changes along with the project throughout its life cycle. At the early stages Strategic issues are of the most important while tactical issues are important when finalizing. It's imperative for a good project manager to have the ability and know how required to successfully shift between strategic and tactical considerations throughout the project as it goes forward (Pinto, 1986). Pinto's model of project management is an essential theory in this study as it helped in understanding the critical success factors and how well project teams can take into consideration these factors when executing projects. As a result, a good knowledge of critical success factors model ensures timely completion and acquisition of the project and also ensures that it satisfies expectations.

#### **4.2 Project Life Cycle Model**

The project life cycle model presents a project in four distinct stages, initiation, planning, execution (may involve monitoring and controlling) and evaluation. The Initiation phase starts with defining the scope, aim, goals, resources, deliverables, timelines and structure of the project, the next stage, planning phase, involves the formulation of a detailed project plan that will be used as a reference point by the project managers all through the projects so as to supervise and manage timelines, costs and project value (Brown, 1998). The next and third stage is project execution phase, in this stage the involved teams produce the deliverables as the managers monitor and directs the project delivery process. The final fourth stage according to this model is the evaluation phase (also known as a Post-Implementation Review)". During this stage the project is evaluated in an attempt to determine its general achievement and evaluate if the advantages desired were actually realized (Brown, 1998). The model was an essential theory in the study as it helped in understanding how project teams can be totally successful as the understanding of the project life cycle is applicable to project management. Therefore an understanding of the project life cycle are useful at ensuring that resources are well coordinate to achieve predictable results. This theory addresses two variables in this study namely; project planning and project monitoring and evaluation.

#### **4.3 Technology Acceptance Model (TAM)**

Davis' (1989) TAM is extensively looked upon for reference on the topic of individuals' approval of technology. The models, perceived usefulness (PU) and perceived ease of use (PEOU) encourages an individual's orientation in relation to system exploitation, this affects a person's ability to manipulate the system, and need for the system hence directly ascertaining real system usage. Davis describes PU as 'the extent to which an individual trusts the efficiency and effectiveness of a system in improving his workability (Davis, 1989) and PEOU as 'the extent to which a worker thinks that employing the functions of a specific system would be effortless (Davis, 1989). The simpler a software is to exploit the more useful it becomes thus perceived ease of use is believed to affect perceived usefulness, these concepts mirror the user's opinion on the subject of evaluating a system, hence could or could not possibly signify the objective reality. System approval will be worse if clients do not regard a system as effective and user friendly (Davis, 1989).

Demographic variables such as environment are also the precedents that cause the assumed effectiveness and generally recognized ease of use. Hence, TAM is founded on both crucial perceptive factors such as perceived usefulness and perceived ease of use. TAM is extensively employed in information technology researches. This is seen on the research



carried out by (Mohammad, 2009) in which he pointed out that TAM is very popular model for explaining and predicting system use. Overall original TAM model concentrates on the specific 'user' of a software, with the idea of 'perceived usefulness', with extra additions to introduce more parts to expound on user 'perceives' 'usefulness', while ignoring the necessary and important social procedures of IS creation and installation, while failing to consider whether technology is in fact of benefit, and the social repercussions associated with Information Systems use (Bagozzi, 2007). TAM was measured and tested by carrying field and laboratory studies. According to Adams et al. (1992) the variables perceived ease of use and usefulness were looked into to examine their authenticity and reliability. This theory supports the study since it gives the reasons as to why organizations and individual adopt new technologies. This theory addresses the third variable of the study on technological adoption.

#### **4.4 Resource Based Theory**

The Resource Based Theory was introduced by Penrose (1959). The theory implies that “firms have resources enable firms to stand out competitively and result in higher quality and extended performance. Worthy and scarce resources can enhance a suitable competitive position. This and many more benefits may be extended over longer durations to the extent that the organization has the capability to defend itself from resource shortcomings, transfer or change” (Frawley & Fahy, 2006). Information system facilities may adopt most characteristics of dynamic capabilities and could be of benefit to organizations working in rapidly changing environment. Information facilities may not however directly stimulate the organizations state positively or enhance it to greater advantage competitively but they could be important to the organizations future competitiveness in rapid environments (Wade and Hulland, 2004). Resources such as adequate finance are required for effective project planning and its implementation in a fast paced business setting (Wade & Hulland, 2004). The interchanging abilities that involve processes, ways of handling and controlling capital in value addition that allows organizations to direct its actions in enhancing effectiveness. An organization equipped with necessary capital resource is required to have greater effect on the operability of project planning competent leadership. Resource based theory was too appropriate as it elaborates how resources controlled by an organization are to be considered in facilitating the planning which oversees the overall objectives of certain projects. This theory addresses the first variable on top management support.

### **5. CONCEPTUAL FRAMEWORK**

A conceptual framework is a research instrument meant to assist a researcher in gaining awareness and understanding of the subject under study and to effectively communicate it. When undoubtedly presented it helps a researcher to understand subsequent findings. Furthermore it expounds and shows the likely correlation between the dependent and independent variables (Smyth, 2004).

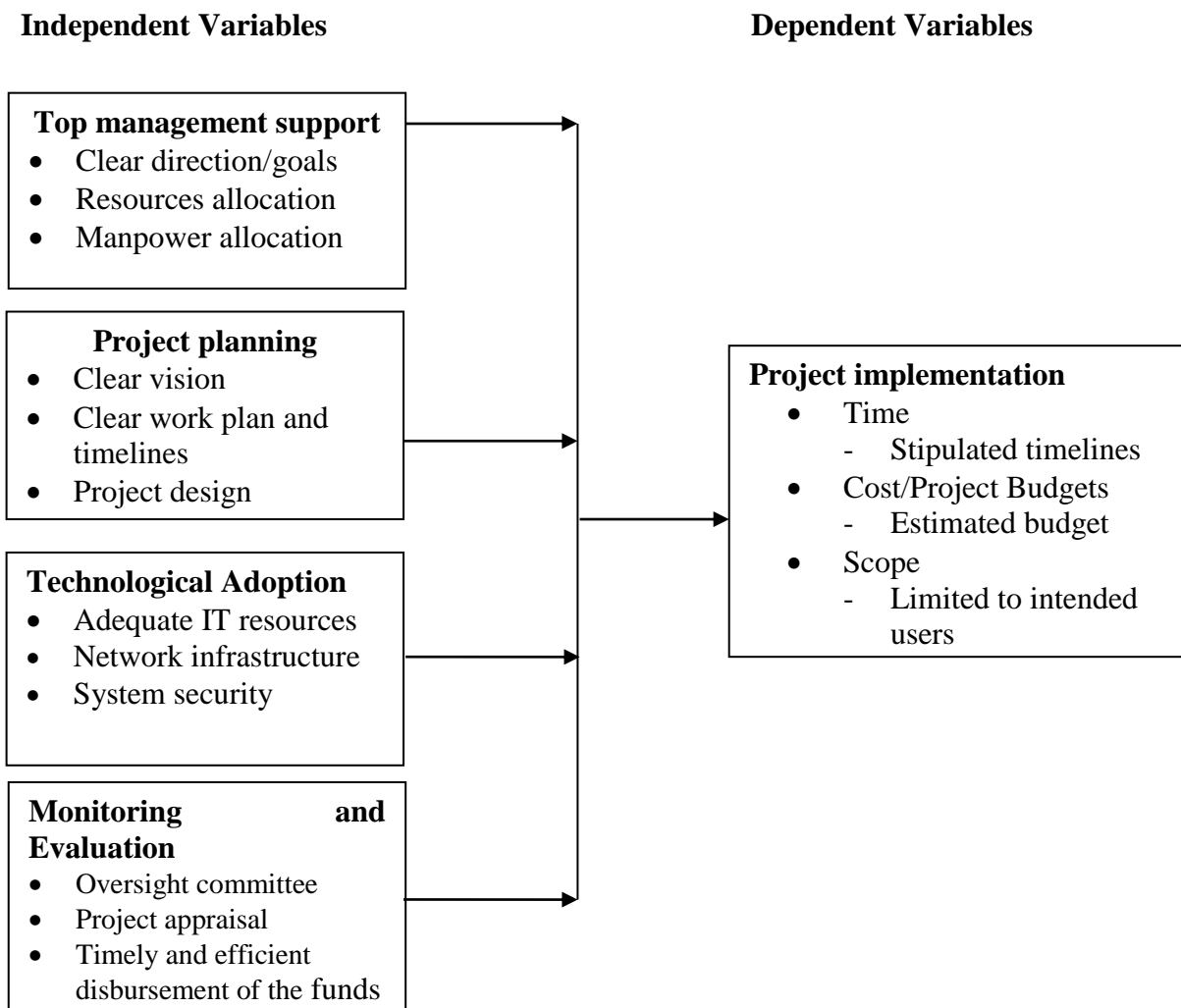


Figure 2.1: Conceptual Framework

## 6. RESEARCH METHODOLOGY

Research design is the laid out plan to facilitate collection, measurement and analysis of the data. The study made use of a descriptive and correlational research design. The target population for this study was all the 25 state regulatory corporations in Kenya. The study sample was made up of all state regulatory corporations in Kenya. A census was employed to encompass all the 25 corporations. Given that the sample size was relatively minimal, hence the study sample was from the entire 25 corporations as indicated in the presidential taskforce reforms. This study mainly relied on primary data which was gathered using self-administered questionnaires consisting of both closed and open ended questions. A questionnaire was a pre-planned drafted set of questions which the respondents give feedback to which are frequently given with strongly outlined choices. Data collected was purely quantitative in nature. For quantitative data the study used Statistical Package for Social Sciences (SPSS) software to produce both the descriptive and the inferential statistics. Descriptive statistics is the analysis of data that assists in describing, presenting or briefly showing data in a helpful ways such that, for example, patterns might be obtained from the input. It however, does not enable researches to make any conclusions beyond the analyzed data nor arrive at conclusions regarding any hypotheses that might have been made. They are just but brief ways to describe data. Descriptive analysis includes use of frequencies, trends

and percentages. Inferential statistics is mathematical methods that uses probability theory to deduce (infer) the characteristics of a population out of the analysis of the properties of a data sample drawn from the same population. It carries out precision and reliability of the inferences drawn, this study used regression analysis and correlation tests. The study findings were presented using tables, and figures to briefly show a distinct image of the results. Regression analysis was adopted to demonstrate effect of independent variables on dependent variable.

## 7. RESEARCH FINDINGS

Table 1 displays the results of correlation test analysis between the dependent variable (ERP project implementation) and independent variables and also correlation among the independent variables themselves. Results prove that there was a positive and significant relationship between project implementation and all the independent variables. This shows that any positive change in top management support, project panning, technological adoption and monitoring and evaluation leads to improved ERP project implementation.

**Table 1: Bivariate Correlation**

Variable		Project implementation	Top management support	Project planning	Technology	Monitoring and evaluation
Project implementation	Pearson Correlation	1				
	Sig. (2-tailed)					
Top management support	Pearson Correlation	0.797	1			
	Sig. (2-tailed)	0.000				
Project planning	Pearson Correlation	0.842	0.789	1		
	Sig. (2-tailed)	0.000	0.000			
Technology	Pearson Correlation	0.754	0.628	0.748	1	
	Sig. (2-tailed)	0.000	0.000	0.000		
Monitoring and evaluation	Pearson Correlation	0.751	0.653	0.766	0.617	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	

The results indicated that there exists a positive and significant ( $r=0.797$ ,  $p$  value= $0.000$ ) correlation between top management support and project implementation. The correlation between the variables indicates that increased project implementation would be associated with improved top management support effectiveness as indicated by a positive correlation between the two variables. The results also indicated that there exist a positive and significant ( $r=0.842$ ,  $p$  value= $0.000$ ) correlation between ERP project implementation and project planning. The correlation between the variables indicates that if project planning effectiveness is improved and enhanced then this would be associated with improved project implementation as indicated by a positive correlation between the two variables.

Table 4.8 further shows the correlation results which indicate that there was a positive and significant relationship between technological adoption and ERP project implementation at



state regulatory corporations in Kenya. This reveals that any positive change in technological adoption directly improved ERP project implementation. The relationship has been illustrated by the correlation co-efficient of 0.754, implying a positive relationship between project planning and ERP project implementation. This was also evidenced by the p value of 0.000 which is less than that of critical value (0.05). Finally, the results obtained showed that there exist a positive and significant ( $r=0.751$ ,  $p$  value= 0.000) correlation between ERP project implementation and monitoring and evaluation. The correlation between the variables indicates that if monitoring and evaluation effectiveness is improved and enhanced then this would be associated with improved ERP project implementation as indicated by a positive correlation between the two variables.

So as to establish the statistical importance of the independent variables on the dependent variable (ERP project implementation) regression analysis was adopted. The results presented in the Table 4.9 below indicate that the goodness of fit for the regression of independent variables and ERP project implementation was satisfactory. An R squared of 0.799 indicates that 79.9% of the variations in ERP project implementation in state regulatory corporations are jointly accounted for by the variations in top management support, project planning, technological adoption as well as monitoring and evaluation. From this it can thus be asserted that the variables adopted in the study jointly explained a greater proportion of the variation in project implementation at state regulatory corporations in Kenya and that the unexplained variation is small. From the model summary table below adjusted  $R^2$  was 0.784 this indicates that the combined overall effect of predictor variables (top management support, project planning, technological adoption, monitoring and evaluation) explains 78.4% of variations in project implementation. The correlation coefficient of 89.4% indicates that the combined overall effect of the predictor variables has a strong and positive correlation with project implementation. This additionally indicates that a change in the drivers of ERP project implementation (top management support, project planning, technological adoption and monitoring and evaluation) has a significant and positive effect on implementation of a project.

**Table 2: Regression Model Fitness**

Model	R	R Square	Adjusted Square	R Std. Error of the Estimate
1	.894a	0.799	0.784	0.3482

*a Predictors: (Constant), Monitoring and evaluation, Technology, Top management support, Project planning*

Prior to estimation of the regression model the goodness of fit was performed and the results are presented in the Table 4.10 below where the results indicated that the overall model was significant, that is, top management support, project planning, technological adoption, monitoring and evaluation are good joint explanatory variables for ERP project implementation ( $F = 52.742$ ,  $p$ -value=0.000). The findings suggest that all the independent variables were statistically significant in explaining changes in project implementation. This is demonstrated by a p value of 0.000 which is less than the acceptance critical value of 0.05.

*Table 3: Analysis of Variance (ANOVA)*

Model	Sum Squares	of df	Mean Square	F	Sig.
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1	Regression	25.579	4	6.395	52.742	.000b
	Residual	6.426	53	0.121		
	Total	32.005	57			

*a Dependent Variable: Project implementation*

*b Predictors: (Constant), Monitoring and evaluation, Technology, Top management support, Project planning*

Table 3 displays the regression coefficients of the independent variables. Regression results indicated that the existing relationship between top management support and ERP project implementation was positive and significant (beta=0.253, p value, 0.004). This implies that an increase in top management support by 1 unit leads to improved ERP project implementation at a rate of 25.3 percent. The findings therefore imply that top management support was statistically significant in explaining ERP project implementation in state regulatory corporations. This means that top management support is the most influencing factor among the factors that contribute to the variation of project implementation and this obviously crucial factor to the effective ERP implementation. This is because the support of management may even influence all the other determinants of project implementation, given that all decisions in regards to the project implementation are made by top management. The study findings are in agreement with Dezdar and Ainin (2011) who studied organizational factors (i.e. top management support, training and education, enterprise-wide communication) that may affect the success of the enterprise resource planning system implementation process in Iran. The results showed that the organizations' top management must readily provide absolute support and commitment to the project so as to ensure its success.

Results further indicate that project planning and ERP project implementation had a positive and significant relationship (beta=0.247 p value 0.04). This signifies that one percentage change in project planning effectiveness is associated with 24.7 percentage increase in ERP project implementation. The findings imply that project planning was statistically significant in explaining ERP project implementation in state regulatory corporations. This means that for any organization to achieve a successful project implementation it must have a well laid out project plan that is followed to the later and all stakeholders involved during project planning. Results are in tandem with Parr and Shanks (2010) who asserted that implementing the ERP system is a gradual process that starts with planning for the system. Deliberate planning has been perceived as one of the most crucial factors for successful enterprise systems implementation; most implementation failures are caused by inadequate planning.

The study findings also indicated that technological adoption had a positive and strong relationship with ERP project implementation (beta=0.207, p value, 0.015). This suggests that an increase in technological adoption effectiveness by 1 unit leads to improved ERP project implementation at state regulatory corporations by 0.207 units. The findings imply that technological adoption was a key determinant of ERP project implementation in state regulatory corporations. This means that those organizations that are in the frontline to adopt new and recent technological changes happening globally, the higher the success rate of ERP project implementation. The study findings are consistent with those of Kimani (2013) who conducted a study on factors affecting the implementation of enterprise resource planning in state corporations and found that top management, training, systems security and IT infrastructure and effective project management influence ERP implementation because of the frequent requirement to better business processes.

**Table 4: Regression Coefficients**

Mode I		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	Constant	0.576	0.22		2.618	0.012
	Top management support	0.253	0.085	0.303	2.99	0.004
	Project planning	0.247	0.118	0.276	2.101	0.04
	Technology	0.207	0.082	0.235	2.518	0.015
	Monitoring and evaluation	0.175	0.086	0.197	2.029	0.047

*a Dependent Variable: Project implementation*

Finally, the study findings indicated that monitoring and evaluation had a positive and significant relationship with ERP project implementation (beta=0.175, p value, 0.047). This implies that an increase in monitoring and evaluation effectiveness by 1 unit leads to improved ERP project implementation at state regulatory corporations at rate of 17.5 percent. This further means that those organizations that adopt monitoring and evaluation during project implementation, their success rate is higher than those that don't adopt project monitoring and evaluation. Results are in support of Naidoo (2011) who outlines that effective project monitoring and evaluation improves the underlying condition for evidence-based project management decisions.

## 8. CONCLUSIONS

Basing on the findings from the study; there was enough evidence obtained to come to a conclusion that ERP project implementation in state regulatory agencies in Kenya had increased as most corporations had embraced the implementation process which was associated with effectiveness of critical success factors hence successful project implementation. The study concluded that top management support influences the implementation of Enterprise Resource Planning projects in state regulatory agencies in Kenya. It is worth noting that management's role in project implementation in any organization is crucial. The study established that top management performs a critical role in providing direction and the needed resources for the project implementation in the organization. With the top management involved, the success of implementing the ERP project was guaranteed. Therefore, management's commitment and support played a critical role in the implementation of ERP project. Hence the variable is a significant factor in the implementation process.

The study concluded that project planning influenced ERP project implementation at state regulatory agencies. The study established that the capability to develop and set clear purposes for the projects, the ability to anticipate short-term disruptions and determining the starting and finishing dates of ERP implementation is critical in facilitating project implementation. The study therefore further concludes that the organizations had well laid down strategy plan with clear vision and mission statements to help achieve the organizations goals and objectives. An organizations investment in information technology structure was critical towards successful implementation of any project. This is due to the fact that the technology provided the base upon which the ERP application software could be built upon. Thus, existence of adequate technology in an organization became an important component in the process of implementing the ERP project. The organization's technology affected the ways in which organizational members interacted with one another to accomplish the routine tasks. Thus these technology systems were of much importance and required for the

successful implementation of the project. The study concludes that technological adoption influenced ERP project implementation at state regulatory agencies in Kenya. Monitoring and evaluation is a critical activity in the project management and implementation. The study concludes that the organizations had strong project committees that executed monitoring and evaluation of the project thus successful implementation, this was enhanced by ensuring timely and efficient disbursement of the funds and efficiently managing the utilization of funds allocated to the ERP projects implementation.

## **9. RECOMMENDATIONS**

The study recommends that the top management ought to improve on their participation in ERP implementation to improve employees' attitude and also provide the resources required for ERP. There is need for the management of involved organizations to continue providing the required exposure to the top management in terms of trainings in application software to realize the importance or positive contribution it may have on the organization's processes. This will tend to improve the management's ability and understanding towards information technology. Planning an advanced ERP project must be taken seriously and with much forethought. The process should be closely equated with upholding scope while implementing. Top management need to publicly establish the project implementation as a level one priority project and managers in turn should legitimately recognize new goals and objectives. Long term and short term plans should be prepared and effected and a clear mechanism to monitor and take corrective action during implementation should be put in place to ensure set targets are being achieved.

There is need for the organization to continue investing in modern technology while at the same time ensuring staff are trained in the use of this technology. This further help in ensuring successful implementation of changes in the information technology infrastructure. It is also a recommendation that firms must acknowledge the need for sound project management practices in regards to developing and implementing modern projects in their businesses. Therefore the management is recommended that investment in Technology be stressed on in the organization because of the huge role it plays in overall achievement of organizational goals and objectives. The study recommends that monitoring and evaluation of projects should be emphasized to ensure that the project funds are adequate, well budgeted and disbursed as planned. The project staff should also exhibit skills and competence in monitoring and evaluation. The effectiveness of monitoring and evaluation can be enhanced when project team learn how to apply technical and systematic methodologies in executing M&E activities. The study has policy implications for project managers by pointing out areas that adopting companies should emphasize in order to successfully implement an ERP system and, therefore, harvest its potential benefits. The management should also embrace change to enhance success implementation of the ERP system. The training of the developers and technical staff should be given consideration. While implementing ERP the management should take care of redundancy issues amongst employees since the various duties created from the use of the system need more departments integrated as others are formed. All the major driving forces towards adoption of new systems should be carefully considered.

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