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DETERMINANTS OF THE SUCCESS OF INFORMATION TECHNOLOGY PROJECTS IN COMMERCIAL BANKS IN KENYA

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Abstract: The banking industry is one sector that intensely uses information technology. Electronic banking emergence in the banking industry has led to a constant adoption of information technology as a way of making service delivery cheaper and faster. However, commercial banks in Kenya have been experiencing high rates of information technology failures. This study therefore sought to identify the determinants of the success of information technology projects in commercial banks in Kenya. The study also sought to establish the influence of stakeholder's involvement, project leadership, resources allocation and staff competence on the success of information technology projects in commercial banks in Kenya. This study used a descriptive research design. The target respondents were all the 129 heads or their equivalent of ICT, Operations and Project Management units in all the 43 commercial banks in Kenya. This study adopted a census inquiry in collecting required data. This means that the whole population was considered in the study. The study used primary data, which was collected by use of a structured questionnaire. Quantitative data collected was analysed using descriptive statistics by the help of SPSS (V. 22) and presented through frequencies, percentages, mean and standard deviation. Data was then presented in tables, figures and charts. In addition, multivariate regression was used to establish the relationship between the dependent and the independent variables. The results indicated that stakeholder's involvement, project leadership, resources allocation and staff competence have a significant influence on IT projects success in commercial banks in Kenya. The study recommends that commercial banks in Kenya should ensure that all stakeholders are involved in all steps of information technology projects. This will help to increase the acceptance of the projects and reduce resistance to change. In addition, the management should undertake training activities to ensure that project leadership skills are improved across the board. This would increase the success rates for the projects undertaken by the commercial banks. Further, commercial banks should have policies that guide proper allocation of resources so as to ensure that the right resources are allocated in a specific project. In addition, the study recommends that the commercial banks' managers should give their full support to the projects so as to ensure that the resources are delivered at the right time.

Key Words: Information Technology, Project Leadership, Project Success, Project

Introduction

Project management is a relatively new branch of management study and practice, and therefore the processes and procedures of project management in developing countries have not been practiced for long as other areas of management (Agboola & Salawu, 2008). Information technology (IT) project management in developing countries is a rather more recent phenomenon, as the use of IT in developing countries is far behind that in developed countries, due to differences in economic, social and political contexts (Anangwe, 2014). The banking sector is one of the industries that intensely use Information Technology. The emergence of electronic banking has led to a constant information technology adoption in the banking industry as a way of increasing efficiency and reducing cost of

service delivery (Ala & Ngugi, 2013). However, the delivery of information and technology projects is most of the times found to be challenging both globally and locally.

A US based Information Technology leader in a project by the Standish Group which is also a project value performance measurement publishes an yearly report outlining the trends in the global stage in IT project performance. In their 2009 publication, the group reported that only 32% of all IT projects run in the US were successful, (delivered on budget, on time and with required functions/features); 44% were challenged (over budget, late and/or with less than the required functions and features); and 24% failed (delivered and never used or cancelled prior to completion). In addition to the tremendously low success figures above, Standish Group International further stated that projects in IT with budgets over USD 10 Million only had a 2% chance of coming in on budget and on time (Rahman, 2007). In the banking industry various commercial banks around the world have experience failure in their information technology projects. In the United States, Chulkov and Desai (2014) found that in the banking industry a large number of IT projects fail and are never brought to completion. In the year 2011, 31 percent of IT projects failed, 40 percent were unsuccessful, and 28 percent were cancelled. In Nigeria, Omorowa (2011) found that the banking industry had experienced information technology failure in 73% of its projects. This was measured in terms of projects failure to meet the set objectives, cost overrun and time overrun.

The industries that have been quick to adopt and utilize this new technology wave in Kenya include the banking industry. Most Kenyan banks have been spending millions of shillings on technology projects. NIC Bank alone has spent in excess of KES 740 Million for a new central banking system (T24) in the last financial year. This rapid adoption of IT systems and technology has however not been easy and in most cases the bank's customers have complained of poorer or even utter lack of banking services instantly after the introduction of the new IT banking platforms. The Central Bank of Kenya implemented a new bond trading system in early 2012 which slowed down activities in the bond market. Trading declined by nearly half in one week immediately after the new system implementation project had been said to be successfully implemented. Consequently, it is very crucial that banks outline strategic decisions specific to their IT projects and recognize factors that will contribute towards implementation success in order to guarantee projects deliver on the anticipated benefits and most essentially without any adverse effects on the already existing banking services and products (Nyamongo & Temesgen, 2013).

Statement of the Problem

The banking industry is one sector that intensely uses information technology. Electronic banking emergence in the banking industry has led to a constant adoption of information technology as a way of making service delivery cheaper and faster (Nzuve & Omolo, 2012). However, commercial banks in Kenya have been experiencing high rates of information technology failures (Nyamongo & Temesgen, 2013).

Onsongo (2008) did an evaluation of information technology investment in commercial banks in Kenya and established that 56% of commercial banks in Kenya have experienced at least two IT projects failures. Onsogo (2008) established that the highest project failures occurred among small banks which accounted for 41% as opposed to 25% among large banks. In addition, Owino, Keraro & Wanjiku (2015) established that some of the biggest challenges of ICT projects are cost overruns and schedule overruns placing ICT projects failure rate at 70%. Also, Njururi (2013) established that only 27% of the ICT projects implemented in commercial banks in Kenya succeed in meeting their objectives, 73% do not meet their objectives. These failures were measured in terms of meeting their

objectives, staying within the stipulated budget and being implemented with the set time frame. Success of Information Technology projects has a significant impact on commercial banks in Kenya. With the increase in the adoption of Information Technology, Commercial banks in Kenya may increase their innovation and hence their IT projects. This means that if the factors that influence the delivery of IT projects are not determined and aligned accordingly, the number of failed projects in the banking sector may increase.

Studies conducted in the banking industry on information technology projects include, Kamau (2014) study on information technology project management methodologies and information technology projects performance in Kenyan commercial banks which focused on the relationship between project management aspects and performance of information technology. The study did not outline other factors, other than project management aspects, that influence the success of information technology projects. Kariuki (2015) study on the factors affecting the success of information technology projects in Commercial Bank of Africa was limited to Commercial Bank of Africa and hence its findings cannot be generalized to the whole banking sector. There is therefore little empirical evidence on the determinants of the success of information technology projects in commercial banks in Kenya. The studies mentioned above did not highlight other important relations to the success of information technology projects. This study therefore sought to fill this gap by looking into the determinants of the success of information technology projects in commercial banks in Kenya.

The specific objectives of this study were;

1. To establish the influence of stakeholder's involvement on the success of information technology projects in commercial banks in Kenya.
2. To identify the influence of project leadership on the success of information technology projects in commercial banks in Kenya.
3. To determine the influence of resources allocation on the success of information technology projects in commercial banks in Kenya.
4. To establish the influence of staff competence on the success of information technology projects in commercial banks in Kenya.

Theoretical Review

This section presents theories related to the variables of the study. The theories used included systems theory, human capital theory and the theory of constraints.

Systems Theory

This theory is a chain of closely related meanings, hypotheses, and it makes claim about all categories of systems from the atomic particles through atoms, molecules, crystals, viruses, cells, organs, individuals, small groups, societies, planets, solar system, and galaxies (Young & Leveson, 2014). General behavior systems theory is a smaller category of such theory, handling the living systems, moving further roughly from viruses through societies. In many cases multiple elements and their special relationship with each other play a major role to the assumption of some specific state in a particular project. According to Young and Leveson (2014), the behavior of specific complex system relies on how the components interact and how they relate with each other instead of with its components. This aids in understanding fundamental structure of various systems applying similar underlying issues. This applies properly to the project management. The fundamental factors are similar for a project manager, funding agencies, people, consumers, resources, available time and

communication practice. But the way in which these factors relate with each other is what makes a project not only special but also to have a unique system with its own dynamics.

The systems theory is used to explain the role of stakeholders' involvement in project's success. Projects in the banking industry in Kenya are complex and dynamic in nature. There are many parts and each part can have different states. In addition, projects have many stakeholders who play a great role in all the processes of a project. Due to this fact, there can be a great number of connections. For instance, a bank can fund a project to develop a system. System developers are the ones to implement the project but before implementation they must get a go ahead from the bank management and must consider the customers views. Each part of the system does influence the whole system in its unique way. The systems theory indicates that a complex system tries to reach a state of equilibrium and then resists any significant change. This is due to the fact that the parts are connected and their connections define the system properties. But when the change occurs, it can be sudden and dramatic. Effective communication between the stakeholders and the project managers has the potential to make complex project systems in the banking industry be a success

Theory of Constraints

The Theory of Constraints is an approach that is used to develop specific management techniques. It was first popularize by the novel, The Goal that applied the principles to operations management (Blackstone, Cox & Schleier, 2009). Since 1997 it has found application in two areas within project management. This first is scheduling of a single project to reduce project duration and simplify project control. This is the main theme of the novel 'Critical Chain'. Only towards the end of this novel there is an indication of its use in project resources allocation. Project planning surfaces any constraints such as resources in terms of staff required, equipment and finances within which the project's objectives must be accomplished.

Hence, the theory has been used in the study to explain the importance of resource allocation on the success of information technology projects in commercial banks in Kenya. Commercial banks manage multiple projects simultaneously. These projects share resources. With the use of critical chain project management, many projects can be synchronized and effectively scheduled with one of few key resources. Resource allocation is a key factor in managing multiple projects. The use of limited resources creates competitive for those resources. If a project does not have a systematic way to allocate resources managers may build in buffers to cope with the risk of having insufficient resources (Chiu-Chi, Ping-Hung & Ying-Chin, 2002).

Human Capital Theory

Human Capital theory was proposed by Theodore Schultz in 1960s. Schultz argues that both knowledge and skill are a form of capital, and that this capital is a product of deliberate organizational growth. The concept of human capital implies an investment in people through education and training. Schultz compares the acquisition of knowledge and skills to acquiring the means of production. Schultz argues that investment in education and training leads to an increase in human productivity, which in turn leads to a positive rate of return and hence an improvement in project implementation and success. For the employer investments in training and developing people is a means of attracting and retaining people. These returns are expected to be improvements in performance, productivity, flexibility and the capacity to innovate that should results from enlarging the skills base and increasing levels of knowledge and competence. Tan (2014) suggest that the general message in persuasive skills, knowledge and competences are key factors in determining whether organizations and firms will prosper. In this study, the human capital theory has been used to explain the role of staff competence

on the success of IT projects. The competence of staff in an organization is pegged on their level of education, experience and the training that they have received (Acosta & Muchai, 2012). The level of education project team members has role to play in project success. In addition, employer investments in training and developing the staff are one way of improving project performance (Chepchirchir, 2014).

Conceptual Framework

The dependent and independent variables are identified and their relationship interpreted. The dependent variable was the success of information technology projects in commercial banks in Kenya while the independent variables include stakeholder's involvement, project leadership, resources allocation and staff competence. A representation of a conceptual framework reflecting the relationship of various variables with the dependent variable is shown in the figure below.

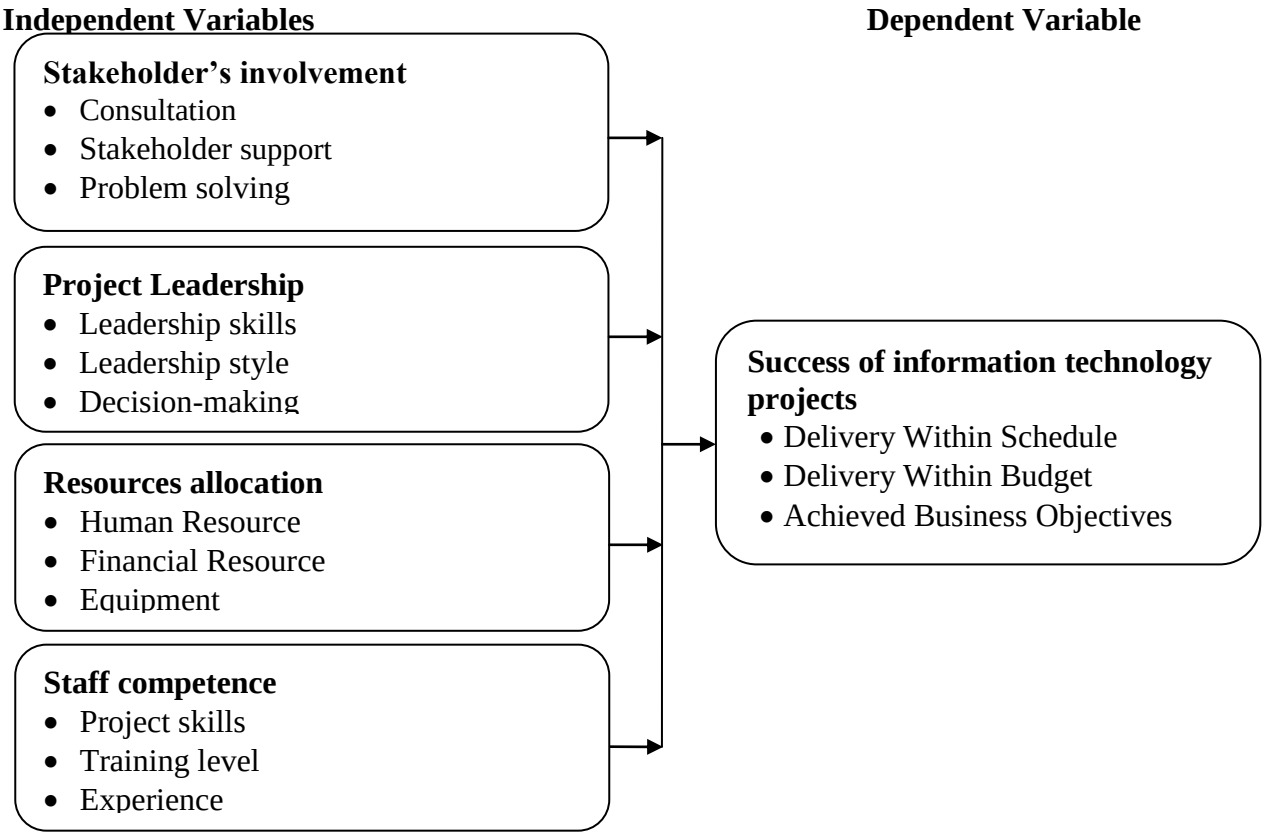

Figure 1: Conceptual Framework

Empirical Review

Stakeholders' Involvement and Success of Projects

In Australia, Doloi (2012) conducted an assessment of stakeholders' influence on social performance of infrastructure projects. The study adopted a descriptive survey design. The results revealed that involvement of stakeholders was a key factor in ensuring the social performance of infrastructure projects. Fageha and Aibinu (2016) carried out a study on the identifying stakeholders' involvement that enhances project scope definition completeness in Saudi Arabian public building projects. The results revealed that the involvement of stakeholders in all the steps of project management had a significant influence on the success of public building projects. In Kenya, Nyandika and Ngugi (2014)

conducted a study on the influence of stakeholders' participation on performance of road projects at Kenya National Highways Authority. This study used descriptive research design. The results indicated that awareness, feasibility, conferences and seminars in user involvement have a great positive influence in road projects performance. In addition, IT skills, computer aided designs, use of intranet and internet and IT policies were found to influence the performance of road projects to a great extent. Top management support was found critical in overseeing funding approvals, good will/commitment, participation and approval of projects which influence positively to road projects performance in KeNHA.

Project Leadership and Success of Projects

In Pakistan, Chaudhry et al. (2012) conducted a study on the impact of leadership on project performance. Leadership factors of HR planning were adopted on the basis of project nature and analyzed the effect of the factors on the performance of the project. The results indicated leadership had positive links with project performance. Marzagão and Carvalho (2016) conducted a study on the influence of project leaders' behavioural competencies on the performance of Six Sigma projects using a survey research design. This study analysed 225 Six Sigma Projects in Brazil, Chile and Colombia, led by 191 Project Leaders. Based on independence statistical testing, it was identified that project success depends on both competencies of the project leader, innovation and direction. In Kenya, Kariuki (2015) carried out a study on project manager leadership style and performance of water projects in Kenya. The study findings were that there is statistically significant relationship between project manager's leadership style and project time performance and teamwork. This implies that clients should consider leadership style and team building capabilities of project managers before allocating them projects.

Resources Allocation and Success of Projects

In Hong Kong, Li, Love and Drew (2000) conducted a study on the effects of overtime work and additional resources on project cost and quality. To reduce project delays, several options representing various combinations of prescribing over-time work and injecting additional resources were found to be effective. In China, Lee et al. (2007) carried out a study on the effects of resource allocation policies for reducing project durations. The study adopted a descriptive research design. Resource demand estimates and resource adjustment times are two policy features that managers can readily alter to influence project durations. These features are used to describe allocation policies in a relatively simple project model. In Rwanda, Umulisa et al. (2015) conducted a study on the effects of project resource planning practices on project performance of Agaseke Project in Kigali. The results revealed that Human resource planning, financial resource planning and Material and time resource planning had a significant influence on project performance measures quality services delivery, cost performance and client satisfaction.

Staff Competence and Success of Projects

In the United Kingdom, Abdel-Wahab et al. (2008) conducted a study on the trends of skills and productivity in the UK construction industry. The results revealed that there was inconsistency in the industry's productivity performance, despite the overall increase in qualification attainment levels and participation rates in training over the same period. However, the year-on-year change in the participation rate of training was not consistently associated with an improvement in productivity performance. In France, Laura (2014) conducted a study on the impact of the customer focus competence group on project performance. The multiple regression model was based on a dataset from Trimo, an engineering and production company of prefabricated buildings. The results indicated that

customer focus competence had a significant influence on the performance of projects. In Kenya, Mutula (2013) conducted a study on the influence of human resource factors on project performance in Nairobi County. The research design used was descriptive survey. The results indicated that technical expertise of the staff had a significant influence on project performance. Technical expertise led to attainment of set targets, timely attainment of set targets (efficiency) and productivity (effectiveness).

Research Methodology

This study used a descriptive research design. In addition, descriptive research design was selected in this study as it is designed to provide a picture of a situation as it naturally happens, that is, there is no changing of the variables. The target population of this study was the 43 commercial banks in Kenya and the target respondents was the heads of ICT, Operations and Project Management units in all the 43 commercial banks in Kenya or their equivalent. This study used a census inquiry in collecting required data. This means that the whole population was considered in the study. The target population in this study was therefore 43 commercial banks.

Table 1: Target Respondents

Department	Target respondents	Percentage (%)
ICT	43	33.33
Operations	43	33.33
Project management	43	33.33
Total	**129**	**100.00**

The study used primary, which was collected using questionnaires. In addition, the questionnaire comprised of both structured and unstructured questions. Questionnaires were used in this research because of the element of anonymity as some of the information required is sensitive. The questionnaire comprised of six sections.

A pretesting was conducted involving 13 staff (equivalent to 10% of the target respondents) from the credit department, since the department was not involved in the main study. According Robinson (2002), 10% of the population is appropriate for pilot testing. In this study, the content validity was improved by seeking the opinions of experts in the field of study, particularly the supervisor. Also, the face validity of the research instrument was improved by carrying out a pilot test and changing any unclear and ambiguous question. Reliability of the research instrument was ensured by assessing the internal consistency of the responses. The Cronbach reliability alpha for all the variables was more than 0.7 and hence the research instrument was considered reliable.

The questionnaire generated quantitative data, which was analysed using descriptive statistics by the help of SPSS (Version 22) and presented through frequencies, percentages, mean and standard deviation. Data was then presented in tables, figures and charts. In addition, multivariate regression was used to establish the relationship between the dependent and the independent variables. The study tested the significance level of each independent variable against the dependent variable at a 95% confidence interval. A 95% confidence interval reflects a significance level of 0.05. This shows that for an independent variable to have a significant effect on the dependent variable, the p-value should be below the significance level (0.05).

The multivariate regression model was:

$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$

Where: Y = projects success in commercial banks in Kenya; β_0 = Constant Term; β_1, β_2, β_3 and β_4 = Beta coefficients; X_1= stakeholders involvement; X_2= project leadership; X_3= resource allocation; X_4= staff competence; ε = Error term

Research Findings and Discussion

Out of the 129 staff, 123 responses were obtained. This gives a response rate of 95.34%. A 100% response rate was not achieved as some of the questionnaires had some inconsistent information and some were half way filled and thus could not be used in the study. According to Kothari (2004), a response rate of 50% or more is adequate for analysis, which shows that 95.34% was an acceptable basis for drawing a conclusion.

Effect of Stakeholders Involvement on IT projects Success

According to the findings, 47.2% of the respondents indicated that consultation with stakeholders had a high effect on the delivery of the project within budget in their banks, 45.5% indicated that it had a very high effect, 4.9% indicated that it had a moderate effect and 2.4% indicated that it had a low effect. This implies that consultation with stakeholders had a high effect on the delivery of the project within budget in commercial banks in Kenya. These findings agree with Scott-Young and Samson (2004) argument that consultation in projects influences the probability of finishing the project within the set budget.

In addition, 66.7% of the respondents indicated that support of stakeholders influences project delivery schedule in their banks to a very high extent, 22.8% indicated to a high extent, 8.1% indicate to a moderate extent and 2.4% indicated to a low extent. This implies that support of stakeholders influences project delivery schedule in their banks to a very high extent. These findings agree with Turner and Muller (2005) argument that the consultation stage is necessary because the requirements of the stakeholder or the final users of the intended project are taken into consideration before the implementation of the project and hence it improves delivery time.

Further, the respondents indicated that stakeholders support had a positive influence on the delivery of projects within the set budget. This is because it leads to minimal error and conflicts between stakeholders. These findings agree with Magutu, Muganda and Ondimu (2011) findings that the stakeholders support is one effective way of ensuring the success of the project in terms of completion within the budget.

In addition, 59.3% of the respondents indicated that support of stakeholders had a very high influence on project achievement of business objectives in their banks, 29.3% indicated that it had high influence, 6.5% indicated that it had moderate influence and 4.9% indicated that it had low influence. This implies that support of stakeholders had a very high influence on project achievement of business objectives in commercial banks in Kenya. These findings agree with Nyamongo and Temesgen (2013) stakeholders support influences project achievement of the set objectives.

Table 2: Effect of Stakeholders Involvement on IT projects Success

	Very low	Low	Moderate	High	Very High
Influence of consultation with stakeholders on delivery of the project within budget	0.0	2.4	4.9	47.2	45.5
Influence of support of stakeholders on project delivery schedule	0.0	2.4	8.1	22.8	66.7
Influence of support of stakeholders on project achievement of business objectives	0.0	4.9	6.5	29.3	59.3

Effect of project leadership on IT projects Success

From the findings, 53.7% of the respondents very highly rated the influence of leadership skills on project delivery within budget in their banks, 35% highly rated it, 6.5% lowly rated it and 4.9% moderately rated it. These results imply that leadership skills very highly influence project delivery within budget in commercial banks in Kenya.

In addition, the respondents indicated that leadership skills and style could either be good or bad. In addition, bureaucratic leadership negatively affects achievement of business objectives. These findings concur with Tshinu et al. (2008) findings that it is paramount for leaders of a project to apply appropriate project management practices in the course of execution and planning of a project.

Further, 52% of the respondents very highly rated the influence of leadership style on project delivery and achievement of business objectives in their banks, 28.5% highly rated it, 9.8% moderately rate it and the same percent lowly rated it. These findings imply that leadership style very highly influences project delivery and achievement of business objectives in commercial banks in Kenya. These findings concur with Tshinu et al. (2008) findings that leadership in a project is supposed to access and address the needs of the individuals and empowering their environment so that it is conducive.

In addition, 48.8% of the respondents indicated that decision making has a positive influence on the project delivery within schedule in their banks, 39.8% indicated that it had a very positive influence, 6.5% indicated that it had a very negative influence and 4.9% indicated that it had a negative influence. These findings imply that decision making has a positive influence on the project delivery within schedule in commercial banks in Kenya. These findings agree with Rajarathinam and Mangalam (2013) findings that stakeholders' involvement has a positive influence on project delivery within schedule.

Table 3: Effect of project leadership on IT projects Success

	Very low	Low	Moderate	High	Very High
Influence of leadership skills on project delivery within budget	0.0	6.5	4.9	35.0	53.7
Influence of Leadership Style on Project Delivery and Achievement of Business Objectives	0.0	9.8	9.8	28.5	52.0
Influence of decision making and project delivery within schedule	0.0	6.5	4.9	48.8	39.8

Effect of Resource allocation on IT projects Success

From the findings, 45.5% of the respondents indicated that human resource influences achievement of business objectives within schedule in their banks to a great extent, 38.2% indicated to a very great extent, 13% indicated to a moderate extent and 3.3% indicated to a low extent. This implies that human resource influences achievement of business objectives within schedule in commercial banks in Kenya to a great extent. As indicated by Nzuve and Omolo, (2012), the various policies governing the allocation of resources determine the amount of resources that various tasks will receive and hence affect the implementation of information technology projects.

In addition, 79.7% of the respondents indicated that financial resources influence project delivery within schedule in their banks to a great extent, 14.6% indicated to a very great extent, 4.1% indicated to a moderate extent and 1.6% indicated to a low extent. This implies that financial resources influence project delivery within schedule in their banks to a great extent. According to Mutsune (2014), schedule performance can be improved by increasing the amount of resources, productivity, and the utilization of those resources like human resource, equipment and financial resources.

According to the findings, 63.4% of the respondents indicated highly rated the influence of financial resources on project delivery within budget in their banks, 28.5% moderately rated it, 4.9% lowly rated it and 3.3% very highly rated. This implies that financial resources highly influence project delivery within budget in commercial banks in Kenya. These findings are in line with Nyamongo and Temesgen, (2013) findings that with effective resource utilization of financial resources is paramount in the reduction of project durations and it influences project delivery within the budget.

Further, from the findings, 73.2% indicated that availability of relevant equipment influences the achievement of business objectives in their banks to a great extent, 17.9% indicated to a very great extent, 5.75 indicated to a moderate extent and 3.3% indicated to a low extent. These findings imply that availability of relevant equipment influences the achievement of business objectives in commercial banks in Kenya to a great extent. According to the findings, 70.7% of the respondents highly rated the influence of availability of relevant equipment on the delivery of projects within budget in their banks, 19.5% very highly rated it and 9.8% lowly rated it. These findings imply that availability of relevant equipment highly influences the delivery of projects within budget in commercial banks in Kenya.

Table 4: Effect of Resource allocation on IT projects Success

	No extent at all	**Low extent**	**Moderate extent**	**Great extent**	**Very great extent**
Influence of human resource on project delivery and achievement of objectives	0.0	3.3	13.0	45.5	38.2
Influence of financial resources on project delivery within schedule	0.0	1.6	4.1	79.7	14.6
Influence of financial resources on project delivery within budget and project achievement of business objectives	0.0	3.3	4.9	28.5	63.4
Influence of availability of relevant equipment on achievement of business objectives	0.0	3.3	5.7	73.2	17.9
Influence of availability of relevant equipment on delivery of projects within budget	0.0	0.0	9.8	70.7	19.5

Effect of Staff competence on IT projects Success

From the findings, 69.1% of the respondents indicated that staff skills influence achievement of business objectives within schedule in their banks to a great extent, 16.3% indicated to a moderate extent and 14.6% indicated to a very great extent. These findings imply that staff skills influence achievement of business objectives within schedule in commercial banks in Kenya to a great extent. These findings agree with Agboola and Salawu (2008) argument that direct success of a project is achieved with the right and competent personnel involved in the project. According to the findings, 47.2% of the respondents indicated that staff skills and training level influence the delivery of projects within budget in their banks to a great extent, 27.6% indicated to a moderate extent, 19.5% indicated to a very great extent and 5.75 indicated to a low extent. These findings imply that staff skills and training level influence the delivery of projects within budget in their banks to a great extent.

According to the findings, 45.5% of the respondents indicated that staff training level influences the delivery of projects within budget in their banks, 42.3% indicated to a great extent, 6.5% indicated to a very great extent and 5.7% indicated to a low extent. The findings imply that staff training level influences the delivery of projects within budget in commercial banks in Kenya to a great extent. In addition, 65.9% of the respondents very highly rated the influence of staff training level on project achievement of business objectives in commercial banks in Kenya, 26.8% highly rated it and 7.3% moderately rated it. These findings show that staff training level highly influences project achievement of business objectives in commercial banks in Kenya. These findings agree with Agboola and Salawu (2008) findings that training policies and duration of training significantly influence the implementation of information technology projects.

Further, 45.5% of the respondents indicated that staff experience influences the delivery of projects within schedule in their banks to a very great extent, 29.35 indicated to a great extent and 25.2% indicated to a moderate extent. These findings imply that staff experience influences the delivery of projects within schedule in commercial banks in Kenya to a very great extent.

Table 5: Effect of Staff competence on IT projects Success

	No extent at all	**Low extent**	**Moderate extent**	**Great extent**	**Very great extent**
Influence on staff skills on the achievement of business objectives within schedule	0.0	0.0	16.3	69.1	14.6
Influence of staff skills and training level on delivery of projects within budget	0.0	5.7	27.6	47.2	19.5
Influence of staff training level on delivery of projects within budget	0.0	5.7	45.5	42.3	6.5
Influence of staff training level on project achievement of business objectives	0.0	0.0	7.3	26.8	65.9
Influence of staff experience on delivery of projects within schedule	0.0	0.0	25.2	29.3	45.5
Influence of staff experience on delivery of projects within budget	0.0	0.0	8.9	61.0	30.1

Success of Information Technology Projects

The findings show that in the year 2012, the average number of projects successfully completed in the 43 commercial banks in Kenya was one, two projects were partially completed and 3 projects were not completed. In the year 2013, the average number of projects successfully completed was one, 3 were partially completed and the same number was not completed. In the year 2014, an average of 2 projects was successfully completed, 3 projects were partially completed and 4 projects were not completed. In year 2015, the average number of projects successfully completed, 2 were partially completed and 3 were not completed. In the year 2016, an average of one project was successfully completed in commercial banks in Kenya, 4 were partially completed and 5 were not completed. These findings imply that commercial banks had more uncompleted and partially completed IT projects as compared to successfully completed projects.

From the findings, 63.4% of the respondents indicated that projects in their banks had an average delivery time of over 3 months, 25.2% indicated they took between 2 and 3 months and 11.4% indicated they were taking 0 to 2 months. In the year 2013, 63.4% of the respondents indicated that projects in their banks had an average delivery time of over 3 months, 25.2% indicated they took between 2 and 3 months and 11.4% indicated they were taking 0 to 2 months. In the year 2014, 83.7% of the respondents indicated that IT projects in their banks had an average delivery time of over 3 months and 16.3% had an average delivery time of between 2 and 3 years. In the year 2015, all the IT projects in commercial banks in Kenya had an average delivery time of over 3 months. In the year 2016, 88.6% of the respondents indicated that their banks had an average delivery time of over 3 months while 11.4% indicated that they had a delivery time of between 2 and 3 months.

According to the findings, in the year 2014 commercial banks had an average estimated cost of Ksh. 50.439 million and a completion cost of Ksh.65 million. In the year 2013 commercial banks had an average estimated cost of Ksh. 64.7154 million and an average completion cost of Ksh. 68 million. In the year 2014, commercial banks in Kenya had an average Ksh. 76 million and an average completion cost of Ksh. 81 million. In the year 2015, commercial banks in Kenya had an average estimated cost of Ksh. 85 million and an average completion cost of Ksh. 92 million. In the year 2016, commercial banks had an average estimated cost Ksh 150 million and completion cost of Ksh. 154 million.

Table 6: Success of Information Technology Projects

Number of Information Technology Projects	**2012**	**2013**	**2014**	**2015**	**2016**
Successfully completed	1.00	1.00	2.00	2.00	1.00
Partially completed	2.00	3.00	3.00	2.00	4.00
Not completed	3.00	3.00	4.00	3.00	4.00
Average Delivery Time					
0-2 months	11.4	11.4	0.0	0.0	0.0
2-3 months	25.2	25.2	16.3	0.0	11.4
Over 3 months	63.4	63.4	83.7	100.0	88.6
Total	100.0	100.0	100.0	100.0	100.0
Average Estimated and Completion Cost					
Estimated cost in millions	50.4390	64.7154	76.0000	85.0000	150.0000
Completion cost in millions	65.0000	68.0000	81.0000	92.0000	154.0000

Inferential Statistics

The study used both correlation analysis and regression analysis to investigate the association between the independent variables and the dependent variable.

Correlations Analysis

According to the findings, there is a positive association between stakeholders involvement and the information technology projects' success in commercial banks in Kenya (r=0.556, p-value=0.000). The results also show that there exists a positive association between project leadership and information technology project's success in commercial banks in Kenya (r=0.504, p-value=0.000). In addition, resource allocation was found to have a positive influence on the success of information technology projects in commercial banks in Kenya (r=0.939, p-value=0.000). Further, the study found that staff competence has a positive influence on the success of information technology projects in commercial banks in Kenya (r=0.967, p-value=0.000).

Table 7: Correlations Analysis

		IT projects success	Stakeholders involvement	Project leadership	Resource allocation	Staff competence
IT projects success	Pearson Correlation	1				
	Sig. (2-tailed)					
Stakeholders involvement	Pearson Correlation	.556	1			
	Sig. (2-tailed)	.000				
Project leadership	Pearson Correlation	.504	.446	1		
	Sig. (2-tailed)	.000	.000			
Resource allocation	Pearson Correlation	.527	.563	.449	1	
	Sig. (2-tailed)	.000	.000	.000		
Staff competence	Pearson Correlation	.584	.587	.443	.632	1
	Sig. (2-tailed)	.000	.000	.000	.000	

**. Correlation is significant at the 0.01 level (2-tailed).

Regression Analysis

The study used multiple regression analysis to examine the weight of the relationship between the independent variables (stakeholder's involvement, project leadership, resources allocation and staff competence) and the dependent variable (the success of information technology projects).

The R-squared shows the variation in the dependent variable that can be explained by the independent variables being studied. The R-squared in this study was 0.6856. This implies that the four independent variables (stakeholder's involvement, project leadership, resources allocation and staff competence) can explain 68.56% of the dependent variable (IT projects success in commercial banks in Kenya).

Table 8: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.828	0.685584	0.5623	0.29488

The analysis of variance shows whether or not a model is a good fit for the data. The F-calculated (25.601) is greater than the F-critical (2.46), which shows that the model can be used in predicting the influence of the independent variables on the dependent variable. In addition, the p-value (0.000) is less than the significance level (0.05), which shows that the model is a good fit for the data.

Table 9: Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	8.904	4	2.226	25.601	.000[b]
	Residual	10.261	118	.087		
	Total	**19.165**	**122**			

From the findings, stakeholders' involvement has a positive influence on IT projects success in commercial banks in Kenya as shown by a regression coefficient of 0.144. The relationship was significant because the p-value (0.013) was less than the significance level (0.05). This study concurs with Standish Group survey, (2010) that indicates that the involvement of all stakeholders has been identified as the most important factor to the success of any project. The results show that project leadership has positive influence on IT projects success in commercial banks in Kenya as shown by a regression coefficient of 0.141. The relationship was significant because the p-value (0.005) was less than the significance level (0.05). These findings agree with Mutsune (2014) argument that implementation can be improved by increasing the amount of resources, productivity, and the utilization of those resources like human resource, equipment and financial resources.

Further, the results indicated that resources allocation has a positive influence on IT projects success in commercial banks in Kenya as shown by a regression coefficient of 0.189. The association was significant as the p-value (0.000) was less than the significance level (0.05). Lastly, the results indicated that staff competence has a positive influence on IT projects success in commercial banks in Kenya as shown by a regression coefficient of 0.182. The association was significant as the p-value (0.00) was less than the significance level (0.05). These findings are in line with Wahab et al. (2008) findings that staff competence and skills has a positive and significant influence on the performance of projects.

The results also show that resource allocation was the most significant factor influencing the performance of IT projects success in commercial banks in Kenya most, followed by staff competence, project leadership and stakeholders involvement. These findings agree with Lepartobiko (2012) findings that resource allocation was the most significant factor in the performance of projects.

Table 10: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	1.735	0.244		7.119	0.000
Stakeholders involvement	0.144	0.057	0.224	2.526	0.013
Project leadership	0.141	0.049	0.227	2.878	0.005
Resource allocation	0.189	0.064	0.128	2.953	0.000
Staff competence	0.182	0.063	0.271	2.889	0.000

Conclusion

This study concludes that stakeholder's involvement has a significant influence on IT projects success in commercial banks in Kenya. All the measures of stakeholder's involvement including consultation, stakeholder support and problem solving influence on IT projects success. The study concludes that project leadership has a significant influence on IT projects success in commercial banks in Kenya. The study established that leadership skills, leadership style and decision-making had an influence on IT projects success.

The study concludes that resources allocation has a significant influence on the success of information technology projects in commercial banks in Kenya. The study revealed that human resource, financial resource and equipment influence the success of information technology projects. Lastly, the study concludes that staff competence has a significant influence on IT projects success in commercial banks in Kenya. The study established that Project skills, Training level and Experience influence the success of information technology projects.

Recommendations

The study recommends that commercial banks in Kenya should ensure that all stakeholders are involved in all steps of information technology projects. This will help to increase the acceptance of the projects and reduce resistance to change.

The management of commercial banks in Kenya should undertake training activities to ensure that project leadership skills are improved across the board. This would increase the success rates for the projects undertaken by the commercial banks.

The study further recommends that the organization should have policies that guide proper allocation of resources so as to ensure that the right resources are allocated in a specific project. In addition, the study recommends that the commercial banks' managers should give their full support to the projects so as to ensure that the resources are delivered at the right time.

The study recommends that commercial banks in Kenya should ensure that all employees as well as end users of the projects are trained on how to use various information systems and other projects before they are implemented.

Areas for Further Studies

This study was limited to commercial banks in Kenya and hence its finding cannot be generalized to other finance institutions in Kenya. This study therefore recommends further studies in other financial institutions like microfinance institutions and Savings and credit Cooperative Societies (SACCO) in

Kenya. The study also recommends further studies on the determinants of time and cost overrun in information technology projects in commercial banks in Kenya.

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