



The Strategic
**JOURNAL of Business & Change
MANAGEMENT**

ISSN 2312-9492 (Online), ISSN 2414-8970 (Print)



www.strategicjournals.com

Volume 5, Issue 2, Article 25

**DETERMINANTS OF SUCCESSFUL PROJECT IMPLEMENTATION IN SELECTED CONSUMER GOODS
COMPANIES IN NAIROBI, KENYA**

Mulei, W., Were, S., & Kwena, R.

DETERMINANTS OF SUCCESSFUL PROJECT IMPLEMENTATION IN SELECTED CONSUMER GOODS COMPANIES IN NAIROBI, KENYA

Mulei, W.,^{*1} Were, S.,² & Kwena, R.³

^{*1}Jomo Kenyatta University of Agriculture and Technology [JKUAT], Nairobi, Kenya

²PhD., Jomo Kenyatta University of Agriculture and Technology [JKUAT], Nairobi, Kenya

³Jomo Kenyatta University of Agriculture and Technology [JKUAT], Nairobi, Kenya

Accepted: April 13, 2018

ABSTRACT

This study's objective was to examine the determinants of successful project implementation in consumer goods companies in relation to five leading CG companies in Nairobi, Kenya. The target population was staff involved in the work processes and project implementation at Unilever, Proctor and Gamble, Proctor and Allan, Nestle Foods and East African Breweries Limited in Kenya. The study adopted a census approach to include all the 122 staff involved in project planning, execution, monitoring and closing within the various departments of the five CG companies. Descriptive survey research design was adopted where questionnaires with both open and close-ended questions were administered, to collect primary data. Secondary data was gathered from documented studies and general literature pertinent to the research focus. The collected data was processed using Statistical Package for Social Science (SPSS) version 21. Analyzed data showed that all the independent variables were significant ($p < 0.05$) implying that the results were statistically significant. The t -values revealed that scope management ($t = 6.611$) was the greatest determinant for successful project implementation in the CG company followed by quality management ($t = 4.687$), then project resources ($t = 3.890$) and finally risk management ($t = 2.101$). The correlation coefficient (r) between successful project implementation and scope management was found to be 0.721 at ($p = 0.000$) while that of the dependent variable and quality management, project resources and risk management was 0.696, 0.686 and 0.647 respectively. All the independent variables were found to significantly influence the dependent variable. The study recommends that CG companies adopt PM processes and techniques for maximized performance and outputs. The findings of the study should be used to create work guidelines, in line with the four theories, for CG companies to factor in their project operations.

Key terms: Scope Management , Risk Management, Quality Management, Project Resources, Project Implementation

INTRODUCTION

Project Management (PM) practices are currently applied in all business and project based organizations, regardless of size or cost. PM managers have been sought in most organizations to spearhead and direct the application of the PM methodologies in the various work units. Organizations have found that PM provides order and basis for accountability and progress tracking. Consumer goods (CG) companies, just like the other operational organizations were found to implement PM principles in their production, marketing and sales departments (Newton, 2015).

Consumer goods companies primarily engage in the production, distribution and marketing operations of consumer goods. The way in which CG companies' work processes are planned and carried out, follows a sequence beginning with an agreed strategy, which leads to an idea for a specific action, oriented towards achieving a set of objectives, which then is formulated, implemented, and evaluated with a view to improving the strategy and further action. Similarly, projects are known to comprise of tasks that lead to realization of initially set objectives, within a defined time, cost and scope (Forest, 2017).

In his description of the phases in the project management cycle, Westland (2006) refers to project implementation as the project executing phase. Here, the activities include monitoring and control where the project team is expected to perform - time management, risk management, cost management, issue management, quality management, procurement management, change management, acceptance management and communications management.

In its definition of project implementation, PMI (2013) talks about 'execution', which is one of the four process groups in the PMBoK. It refers to the executing process group consisting of those processes performed to complete the work

defined in the project management plan. Some of the relating activities here include coordinating people and resources, managing stakeholder expectations, as well as integrating and performing the activities of the project in line with the project management plan.

To distinguish between project implementation success and project success Rolstadas, Tommelein, Schiefloe and Ballard (2014) state that project success may be measured against:- (i) project objectives – i.e. what the project organization is expected to deliver at the close of the project (scope, quality, cost, time); (ii) business objectives – i.e. what the project owner expects to obtain from using the project results after the project has been handed over from the project organization, and; (iii) social and environmental objectives – i.e. what benefits the local society expect from the project both during project execution and during the use of the project results.

They further expound that project implementation success is measured against the traditional measures of performance against scope, quality, cost, and time (Rolstadas, Tommelein, Schiefloe & Ballard, 2014). These four elements referred to as knowledge areas in PM. The PMI (2015) states that these four are part of ten knowledge areas that have specific methodologies and tools for PM success. They are listed as, in their order of importance - Integration Management, Scope Management, Time Management, Cost Management, Quality Management, Human Resource Management, Communications Management, Risk Management, Procurement management and stakeholder management. This study focused on three of the above namely, scope, quality and risk management.

The consumer goods (CG) sector represents one of the largest industries worldwide. It is mainly characterized by companies that supply low-cost

products that are in constant high demand. Products that are classified under the CG banner include food, beverages, personal hygiene and household cleaning utensils. The term “fast-moving” stems from the fact that consumer goods company products usually have a short shelf life and are non-durable. The big names in the CG sector include Sara Lee, Nestle, Reckitt Benckiser, Unilever, Procter & Gamble, Proctor and Allan, Nestle Foods, East African Breweries Limited (EABL), Coca - Cola, Carlsberg, Kleenex, General Mills, Pepsi, Mars and Johnson & Johnson.

Developing countries are becoming hotbeds of innovation in much the same way as Japan did from the 1950s onwards. They are coming up with new products and services that are dramatically cheaper than their Western equivalents. They are reinventing systems of production and distribution, and they are experimenting with entirely new business models. All the elements of modern business, from supply-chain management to recruitment and retention, are being reinvented in one emerging market or another (PMI, 2011). On the other hand, as explicated by an Ernst & Young (2011) report, the CG sector in Africa has significant scope to expand.

The manufacturing sector in Kenya is characterized by several players, increased competition, regulatory changes, changing consumer styles and expectations, availability of a wide variety of substitutes, and shorter distribution channels as manufacturers gain direct access to most markets. The CG sector is one of the major drivers of the country’s economy and happens to be one of the most volatile and competitive. The CG companies found in Kenya include some of the traditional FMCG giants like Unilever, Nestle Foods, GlaxoSmithKline and British American Tobacco Kenya Limited, EABL, Procter and Gamble, Proctor and Allan among many others..

The study examined project implementation processes at, Unilever, Proctor and Gamble, Proctor and Allan, Nestle Foods and East Africa Breweries Limited (EABL), CG companies found in Kenya. The five were selected because of their long establishment in the country and their formidable products and services that are common in most households (Wangari, 2016). The five CGs multinationals were considered since they have local manufacturing operations in Kenya therefore their annual spend on capital and operating expenditure was high.

According to aforementioned 2016 GeoPoll report, Geisha from Unilever was the leading brand in the beauty soap section controlling 44% of the market. Ariel from Procter and Gamble dominated the washing powder market with 51% followed by Sunlight from Unilever at 22%. Guinness from EABL as the most consumed beer brand dominated the beer market with a 40% market share. Proctor and Allan continued to lead breakfast cereals in Kenya in second position with a 14% value share followed by Nestle Foods Kenya that generated 11%. (Wangari, 2016; Euro monitor International, 2016).

Statement of the Problem

As a measure of success, at the end of an innovative project, the:- (i) cost, time and scope (quality) framework should have adhered to the preset project plans, and (ii) the project team’s innovative ideas successfully translated into new processes and products that satisfy customer and company expectations without conflict (Trott, 2005). This is not always the case in the CG Company. Unlike the typical project, project implementation in the CG Company faces higher uncertainty and risk, particularly in the production or innovation department. The final outcome is not known at the outset and issues emerge during the work processes, and therefore, decisions must be made with incomplete information. Risks often

only become apparent in the later stages, and at great expense.

Apart from the high risk, the CG Company's likelihood to fail is attributed to change in scope. In their study, Mirzaa, Pourzolfagharb and Shahnazar (2013) established that project scope with clearly defined goals and objectives is a key dimension for project success. A Price Waterhouse Coopers survey in 2014 reported that changes in scope mid-project (at 41%), poor estimates in the planning phase (at 39%) and insufficient resources (at 30%) - were the top three reasons for project failure.

The survey further indicated that the warning signs of a failing project included overruns of schedule and cost, and increase in overtime amongst others (PwC, 2014). Most projects do not achieve much success because of lack of a clear definition for project and product scope as well as improper control of them (Mirzaa, Pourzolfagharb & Shahnazar, 2013).

Time is another factor as emphasized by the Boston Consulting Group (2012) who state that speed in innovation and imitation becomes a leading source of competitive advantage for FMCG. The Group's study of a cross-section of FMCG companies in a variety of industries showed a significant gap between high and ordinary performers where leading FMCG players were those that developed new products within 15 months - 7 months faster than the median, 22 months.

The lack of empirical research on the influence of PM methodologies on the work processes in the consumer goods organizations in Kenya intensified the need for intervention (Somba, 2015; Gwaya, 2015). A critical look at PM methodologies in quality management, risk management, scope management and resources and how they affect project implementation in five of Kenya's private and well performing companies is important to help ascertain the link

for the overall performance. This study thus considered the link between PM and project implementation in five CG Companies in Kenya. It aimed to establish the determinants of success in project implementation in Unilever, P&G, Proctor and Allan, Nestle Foods and EABL.

Objectives of the study

The general objective was to examine the determinants of successful project implementation in selected consumer goods companies in Nairobi, Kenya. The specific objectives were:-

- To determine the effect of scope management on the success of project implementation in selected consumer goods companies in Nairobi, Kenya.
- To examine the effect of risk management on the success of project implementation in selected consumer goods companies in Nairobi, Kenya.
- To highlight the effect of quality management on the success of project implementation in selected consumer goods companies in Nairobi, Kenya.
- To determine the effect of project resources on the success of project implementation in selected consumer goods companies in Nairobi, Kenya.

LITERATURE REVIEW

Theoretical Framework

Theory of Triple Constraints

The key attributes of the theory of the triple constraint as stipulated by Van Wayngaad, Pretorius, and Pretorius (2012) are:- (i) The triple constraint constitutes a balance of the three interdependent project elements of scope, time and cost as a function of the project higher purpose; (ii) The cause and effect of new or changing triple constraint requirements are constantly negotiated during all phases of a

project; (iii) The three key triple constraint relationships signify that at least one of the triple constraint variables must be constrained (otherwise there is no baseline for planning), and at least one of the variables must have capacity for exploitation (otherwise quality may be affected).

The scope of a project is a fundamental element as all subsequent processes and resources are reliant on it. Many projects fail on this constraint because the scope of the project is either not fully defined or understood from the start. When you increase a project's scope, you either have to increase its cost or time. The Theory of Triple Constraints is best suited here as it automatically binds the project cost and time factors to the scope and so in this context, it is considered that scope management automatically has great bearing on the two. This theory supports the independent variable, scope management as it provides comprehensive description and expected inputs for ensuring that the project boundaries are well defined, to avoid time and cost overruns.

Active Threat and Opportunity Management (ATOM)

The ATOM Risk Process developed by Hillson and Simon has similar basis of reasoning and process as that developed by PMBOK for the risk management knowledge area. The steps included are identifying risks, assessing risks, planning risk treatment, reporting, implementing and reviewing. The risk management plan is the starting point in the process and is developed during the project initiation stage. This is followed by risk identification, assessment and response planning. Reporting and reviewing risk continuously throughout the project is important in order to identify new risks, ensure the risk responses are working as intended and updating necessary project documents. At the end of the project, a project level review is done to help future risk management.

The process developers emphasize the importance of a supportive organization, competent people, an appropriate supporting infrastructure and a good process as major factors for effective risk. Having a solid infrastructure is important as it ensures the organization has the proper tools necessary to manage risks that are relevant to them. The organization should ensure that the process that is set can be scaled to all projects and risks within the organization. (Antonsson & Vojvodic, 2017).

For this study, the ATOM risk process was followed in assessing the independent variable – risk management. The highlighted steps formed the measurable indicators for examining risk management processes within the selected CG companies in Kenya. If applied, the acts of identifying risks, assessing risks, planning risk treatment, reporting, implementing and reviewing in the CG company and according to the ATOM Risk Process help to minimize or mitigate risk for successful outcomes. This theory supports the independent variable, risk management in that it covers the necessary actions needed for comprehensive management of risk in any project.

Juran's Theory

Dr. Joseph Juran is responsible for the "quality trilogy" which is made up of quality planning, quality improvement, and quality control. The quality trilogy is an improvement cycle that is meant to reduce the cost of poor quality by planning quality into the product/process. If a quality improvement project is to be successful, then all quality improvement actions must be carefully planned out and controlled. Juran believed there were ten steps to quality improvement.

These steps are: - (i) An awareness of the opportunities and needs for improvement must be created, (ii) Improvement goals must be determined, (iii) Organization is required for

reaching the goals, (iv) Training needs to be provided, (v) Initialize projects, (vi) Monitor progress, (vii) Recognize performance, (viii) Report on results, (ix) Track achievement of improvements, and (x) Repeat (Neyestani, 2017).

Resource Based View Theory

The central premise of Resource based view addresses the fundamental question of why firms are different and how firms achieve and sustain competitive advantage by deploying their resources. The founding idea of viewing a firm as a bundle of resources was pioneered by Edith Penrose in 1959. She argued that it is the heterogeneity, not the homogeneity, of the productive services available from its resources that give each firm its unique character.

The notion of firm’s resources heterogeneity is the basis of the RBV. Penrose was one of the first scholars to recognize the importance of resources to a firm’s competitive position. In 1959, she argued that a firm’s growth, both internally and then externally through merger, acquisition, and diversification, is due to the manner in which its resources are employed (Newbert, 2007).

A growing body of literature that embraces the RBV of the firm offers new insights. According to this influential perspective, the presence of different organizational resources and capabilities positively affects the outcome of the production process. In an analysis of RBV-grounded empirical articles, Newbert (2007) concluded that it may well be the firm’s organizing context and its valuable, rare, inimitable capabilities (dynamic and otherwise) and core competencies rather than its static resources that are essential to determining its competitive position.

Organizational resources and capabilities are those that underlie and determine a firm’s capacity for production. Within this perspective, organizational resources (tangible and intangible) are taken to provide the input that in turn is

combined and transformed by capabilities to produce innovative forms of competitive advantage.

This theory was applied in the examination of project resources, as one of the independent variables. The implied measurement angles include resources availability, the level and extent, and quality. This theory supports the independent variable, resource management in that it not only provides sound basis for categorization of resources needed for production, it highlights the basis for measurement.

Conceptual Framework

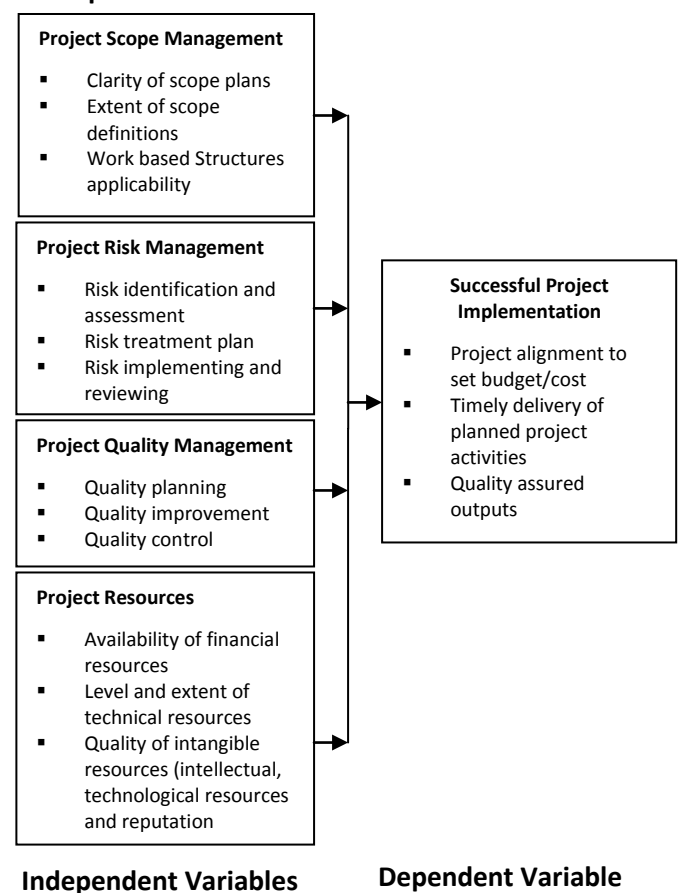


Figure 1: Conceptual Framework

Successful Project Implementation

The study’s dependent variable, project implementation success was defined in line with PMI’s project process – execution. To be considered were the Unilever, Proctor and

Gamble, Proctor and Allan, Nestle Foods and EABL work processes performed to complete the projects as defined in the respective project management plan. The time taken, quality of outputs and cost incurred are factored in the determination of whether the project is successfully implemented or not.

Factors here include the management of the project budget, time, resources, stakeholders, and monitoring. The actual execution of the planned activities and tasks were considered against the baseline as initially set at the beginning of the projects at the operations and marketing departments of Unilever, Proctor and Gamble, Proctor and Allan, Nestle Foods and EABL.

Project Scope Management

The independent variable 'project scope management' is concerned with defining and controlling what is expected or planned for in the project. It entails determining, documenting, and managing stakeholder needs and requirements to meet project objectives. In line with the theory of triple constraints, at least one of the triple constraint variables (i.e. time, cost or scope) must be constrained - otherwise there is no baseline for planning, and at least one of the variables must have capacity for exploitation -otherwise quality may be affected. Considering scope, as the variable selected for this study, the scope management plans of the CG companies were scrutinized. The detailed description of the CG projects and products were sought and Work Breakdown structures assessed where practicable (PMI, 2015).

Project Risk Management

Project risk management project risk is important to increase the likelihood and impact of positive events, and decrease the likelihood and impact of negative events in the work processes (PMI, 2015). This is an independent variable that involved scrutiny of the CG companies' risk management plans in order to identify and assess

the risks. Other indicators, as guided by the ATOM risk process included the risk treatment plan, reports, actual implementation and reviews at Unilever, Proctor and Gamble, Proctor and Allan, Nestle Foods and EABL, Kenya.

Project Quality Management

Project Quality Management includes the processes and activities of the company that determine quality policies, objectives, and responsibilities so that the final products satisfy the needs of the consumers and other stakeholders. This is an independent variable that considered the CG companies' quality planning, quality improvement, and quality control, based on Juran's quality trilogy. The companies' quality management system was examined to establish it supports continuous process improvement activities and the connection with the final project outcome or implementation success.

Project Resources

Project resources, as important to project implementation was assessed as an independent variable affecting project implementation. The premise is based on the fact that any positive output requires resources. The resource-based view (RBV) dictates that Organizational resources and capabilities determine the organization's capacity for optimal performance. Project resources, which are tangible (financial, technical) and intangible (Human, knowledge), are taken to provide the input that in turn is combined and transformed by capabilities to produce innovative forms of competitive advantage.

Empirical Review

This section reviews literature regarding project management practices and their impact on the success of project implementation. Previous studies or research conducted by various scholars, spanning the globe are examined to gather any similarity or bearing to this study. To fully address the study variables and how the interconnect, the

review includes the 5 study elements of project management – scope management, quality management, risk management and project resources – and how they relate to the success in project implementation.

Successful Project Implementation

Project implementation success focuses on the successful application of PM tools and techniques in the daily operations of the CG Company's projects. As argued by Jeyathevan (as cited in Strauss, 2002), when looking at the use of enterprise resource management (ERM) systems, that it is not the application software that earns their censure, but rather the implementation itself that often do not achieve the aims of the organization. Although some business managers with enough understanding of technology are made to head IT projects, the problem with project management is that it lacks a methodology. It is not enough to simply make use of the PM methodologies, but to know when, and how to ensure that project objectives are met within the three basic constraints of time, cost and scope.

Umhlaba Development Services (2017) outlines three major principles of project implementation that are applicable in the management of CG companies. These are:- (i) Planning and re-planning - The initially prepared Implementation Schedule, Logframe and Activity Plans and Budgets in the CG company should be regularly reviewed, refined, and updated accordingly.

(ii) Monitoring - Project management has the task of establishing sufficient controls over the CG company project to ensure that it stays on track towards the achievement of the set objectives. This is done through the systematic and continuous collection, analysis and use of information for management control and decision-making. In this instance implementation is seen as a continuous learning process where experience gathered is analyzed and fed back into

planning and updated implementation approaches.

(iii) Reporting - The project management or implementing agency has to provide reports on progress. The aim of these reports is to provide sufficiently detailed information to check the state of advance of the project in light of its objectives, and the hoped for Results and the Activities to be carried out. These reports cover also details of budget implementation, and include the details of the future budgetary provisions for the following reporting period.

Centre for Business Practices (2005) affirm that project implementation measures are undertaken to provide information to managers in order to exert control over the project. Those measures must be appropriate to the organizational level that can immediately effect change based on information it learns in order to control the performance of the project at hand (measuring the earned value of the project was provide information on the performance of the project to allow managers to make critical decisions to bring the project to closure successfully). These measures must be collected fairly often, perhaps even weekly, depending on the duration of the project.

The project resources and processes affect the overall performance of the project-based or business-based organization. While assessing the direct and indirect impact of project management variables on project performance, Zulu (2007) concluded that project management variables impacting on project performance can be portrayed as a myriad of causal relationships both directly and indirectly impacting on project implementation and performance.

The PM variables are project management leadership, project team, project management policy and strategy and project communication. The five, which merge into this study's variables, influence the project implementation. In their

study of the hotel industry, Samuel, Siagian and Octavia (2017) state that successful project implementation is gauged by how fast, how good the ideas are implemented and how much value is created in the short and long run.

Project Scope Management

Lo Valvo (2015) states that traditionally, all activities related to defining and framing a project and its objectives are comprised in the scoping process. That is, from analyzing the client's needs to specifying the product or service to be created, from constructing the meaning of the project to analyzing the context in which the initiative is to be undertaken, from defining all the necessary activities (developing the Work Breakdown Structure) to supervising the project to ensure that it proceeds in accordance with the objectives defined in the initial phases. Particular emphasis is laid on scoping topics, stressing that the correct set-up of a project is crucial for its success.

While discussing scope management Cohn (2006) mentions one of the key strategies used that involve the practice of daily stand-up meetings. This is a daily meeting, where all project team members attend, and while remaining standing, they each relate their status to the other team members and their plan for the day based on the progress that they've made. Standing helps keep the meetings short, between 5 and 15 minutes. The purpose is for the team members to inspect and adapt its work plan (iteration backlog) by quickly sharing information about the progress (or lack of) being made by each individual regarding the tasks that were committed to during the project planning meeting. These stand-ups help the team to remain focused on the agreed-to scope and goals of the project.

Project Risk Management

Effective risk management can help to deliver projects to meet the constraints of cost, schedule, and specification; and avoid painful and expensive fire fighting. Kwak and Dixon (2008) in their study

of risk management in pharmaceutical companies contribute that project managers and senior managers resisted putting effort into improving risk management in part because of the mistaken belief that the highly risky and innovative nature of the projects being conducted makes it nearly impossible to predict and manage risks effectively. This resulted in project managers performing risk assessment in a cursory way, focusing only on the most common risks they may have observed in the past.

They further state that project managers do not spend time creating exhaustive lists of possible risks, and spend less time on risk response planning. Risk management is conducted mostly during the planning phase, and only because it is a formal requirement for approval of the project plan. While looking at enterprise risk management in India's FMCG sector, Gulati (2015) singles out environmental risk as a major factor that can have serious harmful effects on an organization's financial wellbeing and its ability to achieve its business objectives and CG's are not an exception.

Existing and forthcoming legislation and regulations as well as governance and accounting trends of environmental risk and liability can influence an organization's financial performance, reputation and brand, cash flow, and shareholder value. Corporations and their directors and officers are at increasing and continuous risk of facing criminal allegations and serious financial penalties imposed for not properly attending to environmental issues. Gulati further adds that competitive intensity, irregularity of monsoons, fast changing consumer tastes and preferences as well as the unpredictability in commodity prices especially the petroleum crude, vegetable fats, chemicals and packaging materials particularly affects the CG sector.

Adebanjo and Mann state that demand uncertainties are more relevant in the CG

manufacturing sector and have impacts on item availability, stock levels and the operative usage of resources (cited in Nemtajela, 2016). Changes in business models and consumer preferences, which are commonly faced by CG companies, can expose consumer products and retail companies to the risk of fraud. In addition, the pressure to report consistent sales results amidst intense competition, and the need to comply with regulatory requirements, can push companies towards adopting unethical business practices to survive in the market. Fraud can be a pressing challenge for the consumer products industry, with the potential to affect finances, erode customer trust and affect brand value years (Deloitte Touche, 2015).

Consumer market companies tend to have several third-party touch-points, such as vendors/suppliers, transporters, third-party manufacturers or subcontractors, packers, stockiest, distributors or other third party service providers, that can significantly increase the risk of collusive frauds that are difficult to detect. According to the Deloitte India Fraud Survey, released in 2014, around 54 percent of survey respondents belonging to the consumer products sector said they had most frequently experienced theft/diversion of goods, and bribery and corruption over the last two years (Deloitte Touche, 2015).

Project Quality Management

Moonsamy and Singh (2012) observe that organizations in the 21st century are responding to the changing global environment by introducing initiatives requiring new resources and systems, which in many cases place a major strain on organizations already overloaded with costs and resource constraints. As a result, many organizations are struggling to proficiently and practically manage them. Subsequently, it is evident that there is a need for developing and implementing a strategy with an integrated framework to facilitate the evolution that is required of existing quality models in order to

make them relevant for the needs of manufacturing organizations in the 21st century.

Shaikh (2012), in his study on quality management in FMCG in Pakistan, confirmed that TQM is an effective enabler of business performance improvement that has been tested both empirically and statistically. He established that at a macro level TQM improves the business performance of the FMCG organizations and at micro level TQM is an effective tool for improvising organizational revenue and profitability.

Project Resources

McKinney (2011) supports the importance of project resources by asserting that work processes require a committed level of resources, which include people, money, time and equipment for considerable amount of time. The level of resourcing is the validation for the importance and commitment the organization devotes to profitable production and innovation, a prerequisite for the CG Company. Resources are a key component of any project as stipulated by Newbert (2007) who believes that a firm's growth is due to the manner in which its resources are employed.

Resource management, which consists of financial resources, social capital and human resources, was regarded by respondents of a study on innovation management in Malaysia as an important factor for production. The finding echoed other research that suggested that financial resource is the key factor for success, that without sufficient financial support, innovative work would encounter unforeseen problems (Kowang, Long & Rasli, 2015).

In the case of university research, the commencement of any research project only takes place post approval of financial resource (i.e. research grant approval). Prior to the approval of research funding, research projects

are deposited at feasibility review stage without adding value to the overall project performance. Resources can be classified as tangible (financial or physical) or intangible (i.e., employee's knowledge, experiences and skills, firm's reputation, brand name, organizational procedures (Kostopoulos, Spanos & Prastacos, 2004).

According to Alexe and Alexe (2016), human capital - an intangible resource that is very important - consists of the development and updating of knowledge; management's interest for excessive specialization of the staff; promoting the people; identifying people with creative skills; pursuit of a constant turnover of labor; the development of communication skills for technical personnel; the assignment of the financial and non-financial incentives both for the idea's initiator and for the team members which are dealing with the development and the implementation.

RESEARCH METHODOLOGY

Descriptive survey research design method was used for this study. According to Glass & Hopkins (cited in AECT, 2001), descriptive research can be either quantitative or qualitative and it involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection. Multiple regression was used to test the study variables. According to Kothari & Garg (2014), where there are two or more than two independent variables, the analysis concerning relationships is known as multiple correlations and the equation describing such relationship as the multiple regression. Multiple regression was conducted to examine whether project scope management, risk management, quality management and project resources predict project implementation success. Results of this analysis showed the proportion of variance in project implementation success contributed by the combination of the four predictor or

independent variables, and it measured the unique contribution of each independent variable to the dependent variable (project implementation success). The analysis was therefore modeled as follows:-

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

Where Y was project implementation success; β_0 was the constant or the intercept of the regression line; β_1 , β_2 , β_3 and β_4 are the regression coefficients of independent variables; X_1 , X_2 , X_3 and X_4 represents independent variables – project scope management, project risk management, project quality management and project resources; ϵ is error term.

RESEARCH FINDINGS AND DISCUSSION

The effect of scope management on the success of project implementation in selected consumer goods companies in Nairobi, Kenya

Respondents from the 5 CG companies were asked to state what plans their companies laid down before embarking on the projects that they were involved in. The open-ended question elicited varied responses confirming findings from data collected in the study and from the various related studies. Unilever respondents contributed that their staff were trained on scope, risk and quality management by senior staff before embarking on new projects. The Company's operations department identified market gaps, conducted market survey and identified resources required based on the scope of the project.

EABL respondents stated that the senior management ensured that all the required resources are available and of the right quantity during the planning phase. Issues covered at the planning stage are what the project is trying to cover, how the anticipated risks are to be mitigated, the resources required and who to oversee the project. The finance department is also involved in the planning stage. EABL, like

Unilever conducts market surveys to establish the gaps and competition.

At Proctor and Allan, based on respondents' general feedback, the project team members are identified; their roles defined and required resources outlined by staff from each department. Plans made include; setting objectives, identification of deliverables, planning the schedule and finally making risk management plans. Proctor and Gamble goes through similar process where possible risks are identified, registered and prevention measures put in place. Similarly, the senior management staff are tasked with the planning of all these.

Nestle Foods' scope management involves senior and middle level staff in the operations, human resource, finance and sales departments. The company carries out market research to determine market gaps, it is from this that the project itself is derived, period determined, resources required established and availed before the project starts. The operations department plays a lead role in these processes.

The respondents' narratives confirm Cohn's (2006) mention of meetings as a key strategy in scope management, where project team members relate plans and progress of the project, in relation to the set plans. Newton (2015) reference to scope management as 'the work that

needs to be accomplished to deliver a product, service, or result with the specified features and functions' further corroborates the scope management activities attributed to the 5 CG companies.

Extent of scope management functions in respective CG company projects

The study specifically focused on the use of scope statements, availability and accessibility of project related information to the project team and use of work based structures as a technique for project scope management. The respondents were hence asked to state the extent to which these were applied in their respective projects. As illustrated in Table 1, using a Likert scaling of 1 to 5 where 1 = not at all; 2 = to a very small extent; 3 = to a small extent' 4 = to a great extent; and 5= To a very great extent. The mean levels of 4.62, 4.18 and 4.00 respectively on three items indicate that the five CG companies adopted scope management strategies to a 'great extent' (Table 1) Scope statement was made clear for the project teams in Unilever, P&G, Proctor and Allan, Nestle Foods and EABL. The standard deviation of 0.57, 0.42 and 0.41 showed minimal variance in the opinion of the respondents on the matters pertaining to scope management, thus majority of the respondents confirmed the application of scope management strategies, including Work Based Structures in the CG companies' projects.

Table 1: Scope management in Unilever, P&G, Proctor and Allan, Nestle Foods and EABL

	Mean	Std. Deviation
Extent to which scope statement(s) availed was made clear to the project team	4.6216	.56623
Extent to which supporting details provided were clear and concise	4.1757	.41737
Extent to which work based structures were applicable	4.0000	.40544

The study findings are in line with Newton (2015) viewpoint that scope needs to be constantly monitored to avoid it changing in a way that would shift the budget or timescale, or contravene stakeholder's expectations of the final

deliverable. The application of Work Based Structures in the CG companies' projects ensures that there is constant monitoring, to ensure that milestones are achieved, at the set time, with the assigned resources.

The study further sought to establish the extent of participation of the respondents in the actual scope management. A mean of 3.9 and standard deviation of 0.5 was derived from the responses (Table 2). Thus, the majority of respondents

stated that they participated to a great extent in the three previously outlined scope management strategies (i.e. expounding scope statement, provision of supporting scope details and design of work based structures).

Table 2: Respondents' extent of participation in scope management

	Mean	Std. Deviation
Extent of participation in scope management	3.8919	.51198

The study findings corroborates Lo Valvo's (2015) assertion that the scoping process is important as it encompasses all activities related to defining and framing a project and its objectives. Analyzing the client's needs to specify the product or service to be created are part of market survey as described by one of the respondents. Lo Valvo (2015) also mentions constructing the meaning of the project, analyzing the context in which the initiative is to be undertaken, from defining all the necessary activities (developing the Work Breakdown Structure) to supervising the project to ensure that it proceeds in accordance with the objectives defined in the initial phases. These have been highlighted in the responses collected from the respondents from the 5 CG companies.

The respondents then provided their views on the role of scope management in the success of project implementation in the CG companies. 91.9% of the respondents agreed and 8.1% strongly agreed that scope management tools and techniques have contributed to the success of projects that they were or had been involved in while working in the respective CG companies. The scope management activities are related to the planning and decision-making processes of the company. Based on the finding on the respondents' placing in the management structure of their companies, the participation of majority of the respondents in scope management confirms Johnston (2018) statement that managers at all levels make decisions on behalf of a company. The senior level staff makes the long-term decisions that affect the company as a whole while those that affect the day-to-day

operations are determined by middle to low-level managers of the company.

The effect of risk management on the success of project implementation in selected consumer goods companies in Nairobi, Kenya.

The study went ahead to determine the risk management techniques and tools used in Unilever, P&G, Proctor and Allan, Nestle Foods and EABL. A number of techniques and tools were outlined for the respondents to indicate the level or extent of their application in their respective departments and/or projects. These were: SWOT analysis, risk audit, risk management plan, quantitative risk analysis and modeling, risk probability and impact assessment, expert judgment, contingent response strategies and risk reassessment. A Likert scaling of 1 -5 where 1 = not at all; 2 = to a very small extent; 3 = to a small extent' 4 = to a great extent; and 5= to a very great extent, was used to collect feedback from the respondents.

From the responses gathered, 'use of SWOT analysis' with a mean level of 4.90 and standard deviation of 0.29 ranked highest with majority of the respondents stating that this was applied to a very great extent in their departments or projects. This was followed by use of a 'risk audit' (mean grade – 4.64, standard deviation – 0.48), Risk management plan (mean grade – 4.50, standard deviation – 0.55), quantitative risk analysis and modeling (mean grade – 4.44, standard deviation – 0.55), risk probability and impact assessment (mean grade – 4.13, standard deviation – 0.48),

expert judgment (mean grade – 4.09, standard deviation – 0.38), contingent response strategies (mean grade – 4.01, standard deviation – 0.45),

and lastly risk reassessment at a mean grade of 3.85 and standard deviation – 0.39 (Table 3).

Table 3: Extent of application of risk management techniques and tools in Unilever, P&G, Proctor and Allan, Nestle Foods and EABL

Extent of application of:	Mean	Std. Deviation
SWOT analysis	4.9054	.29465
Risk audit	4.6486	.48065
Risk management plan	4.5000	.55517
Quantitative risk analysis and modeling	4.4459	.55250
Risk probability and impact assessment	4.1351	.47756
Expert judgment	4.0946	.37632
Contingent response strategies	4.0135	.45309
Risk reassessment	3.8514	.39457

The application of the risk management techniques at the five CG companies is supported by Gulati (2015) who says that due to competitive intensity, irregularity of markets, fast changing consumer tastes and preferences as well as the unpredictability in commodity prices that affect the CG sector, the CG company must implement risk management strategies.

The respondents were asked to specify their involvement in the outlined risk management techniques, to establish the extent of their participation, to ascertain their grasp of the risk management processes. The majority, at 66% indicated that they participated to a great extent, 24.3% were involved to a small extent while 9.5% participated in the risk management processes to a very great extent. The findings confirm the HR Council (2018) statement that all staff, potential clients and other stakeholders of the Company are very helpful partners in identifying risks and developing effective strategies to deal with the risks. It adds that once the risk management process is in place, everyone in the organization has a role to play from identifying risks to following policies and procedures to completing forms and reports. Therefore, participation of everyone in the CG Company in relation to risk management is necessary for successful project implementation.

The respondents were further asked to state any other risk management strategies adopted during their project's cycle. From Unilever, Proctor & Gamble, and Proctor & Allan, the respondents stated that their companies acquired insurance policies to cover the projects and analyzed the markets to minimize costs. Staff were further trained in ways of identifying and preventing various risks. Other strategies shared across the five CG companies included adherence to rules and procedures, employee training and putting in place safety measures such as fire assembly points, trained security guards and CCTV cameras. At the EABL, procurement officers are involved in the project-planning phase to help identify suitable suppliers to prevent contract breach.

The study sought the respondents' view on the contribution of risk management tools and techniques to the success of project implementation in their departments and/or projects. Using a 5-point Likert scale, the collected data showed that all the respondents agreed that risk management tools contribute to successful project implementation. 85.1% 'agreed' while 14.9% 'strongly agreed', at a mean rate of 4.1 and standard deviation of 0.36 (Table 4) agreed to a great extent that risk management contributed to the successful implementation of their projects

Table 4: Respondents' view on the role of risk management in the successful implementation of projects in the 5 CG companies

	Mean	Std. Deviation
Agreement that risk management tools have contributed to the success of project implementation	4.1486	.35817
	Response	Frequency
	Agree	63
	Strongly Agree	11
	Total	74
		Percent
		85.1
		14.9
		100

The findings on risk management are in line with Deloitte Touche (2015) viewpoint on the third-party touch-points such as - vendors, suppliers, transporters, third-party manufacturers or subcontractors, packers, stockists, distributors or other third party service providers - that have the potential of significantly increasing the risk of collusive frauds that are difficult to detect. Thus, the respondents mentioned the need to engage with third party touch points that can be vetted and put to account in case of unexpected results.

The effect of quality management on the success of project implementation in selected consumer goods companies in Nairobi, Kenya

In relation to quality management practices, the respondents from Unilever, P&G, Proctor and Allan, Nestle Foods and EABL were asked to state to what extent quality management techniques and tools were used over previous 5 years, to

ensure quality in the processes and products. Table 4.9 shows the specific areas and the feedback on each.

Based on a 5-point Likert scale where 1 = not at all; 2 = to a very small extent; 3 = to a small extent' 4 = to a great extent; and 5= to a very great extent - process analysis ranked high with a mean rate of 4.85 and a standard deviation of 0.36. Majority of the respondents indicated that process analysis in the company's projects was applied to a very great extent. The rest, which followed chronologically as shown on Table 5 included Requirements documentation (mean, 4.59), Quality management plan (mean, 4.58), Quality audits (mean 4.22), Quality checklists (mean, 4.21), Process improvement plan (mean, 4.20), Enterprise environmental factors (mean, 3.98), Stakeholders register (mean, 3.93), Quality metrics (mean 3.55), Other quality management and control tools (mean, 2.43).

Table 5: Respondents' feedback on the application of quality management in the five CG companies

Quality management item	Mean	Std. Deviation
Process analysis	4.8514	.35817
Requirements documentation	4.5946	.57144
Quality management plan	4.5811	.54914
Quality audits	4.2297	.48391
Quality checklists	4.2162	.64681
Process improvement plan	4.2027	.59633
Enterprise environmental factors	3.9865	.30936
Stakeholders register	3.9324	.41648
Quality metrics	3.5541	.57676
Other quality management and control tools	2.4324	1.46260

There was little variance in all the responses except for the last factor – other quality management and control tools – whose standard deviation was more than 1, at 1.46. This implies that the majority of the respondents provided extremely different ratings for this element. This is understandable as most of the quality management factors had been outlined and so the respondents may have felt that there was none other to be considered. The above is supported by Martinez (2017) who states that quality management techniques look at all aspects of the operations, from the sourcing of raw materials and components, to production line technology, staff skills, planning, back office roles, sales, marketing and customer

relationship management. The aim is to ensure all the departments are working at optimal level and together in harmony in order to provide the end customer with a quality product.

The study determined the extent of the respondents' participation in their project's quality management. 65% of the respondents verified that they participated to a great extent. This was followed by 28% of the respondents who stated that they participated in quality management to a small extent. 5% of the respondents participated to a very great extent. The least category was represented by 1% who shared that their participation in quality management was to a very small extent (Table 6).

Table 6: Respondents' extent of participation in quality management in the CG Company

Rating	Frequency	Percentage
To a very small extent	1	1
To a small extent	21	28
To a great extent	48	65
To a very great extent	4	5
Total	74	100.0

The involvement of staff in quality management is supported by Martinez (2017) in his statement that quality management is continuous as it involves progressive monitoring and application of quality processes in all aspects of the project. All staff have to be involved as QM focuses on improving stakeholder's satisfaction and removing unnecessary activities for the continuous improvement of the quality of material and services to the target customers.

In addition to the listed quality management strategies, the respondents were asked to state other additional quality management activities conducted in their respective CG companies. Some of the strategies mentioned were training of staff, identification of causes of problems and hurdles, use of market satisfaction surveys and the proper documentation and legal procedures followed.

The various responses across the five CG Companies showed that quality management is an important factor of production in the various projects and departments. As stated by Moonsamy and Singh (2012) the 21st century organization is responding to the changing global environment by introducing quality management initiatives requiring new resources and systems. The various practices mentioned by the respondents involve use of resources or investments in the part of the CG companies.

Regarding the role played by quality management in the successful implementation of projects in the CG companies, the respondents agreed that quality management tools and techniques were a determinant of success in their projects' implementation. Based on a 5-point Likert scale where 1 = not at all; 2 = to a very small extent; 3 = to a small extent' 4 = to a great extent; and 5= to a very great extent. The minimum value was 4.00 (to a great extent) and standard deviation of

0.199, which showed that the finding was unanimous and applicable to all respondents (Table 7).

Table 7: Respondents’ extent of agreement that quality management tools and techniques contribute to the success of project implementation

	Min	Max	Mean	Std. Deviation
Extent of agreement that quality management tools and techniques have contribute to the success of project implementation	4.00	5.00	4.0405	.19857

A breakdown of the responses show that 100% of the respondents from Nestle foods agreed that quality management contributed to the successful implementation of projects, 87% and 13% from Proctor and Gamble agreed and strongly agreed respectively. In Proctor & Allan, 92% and 8% agreed and strongly agreed respectively while 88% and 12% respectively at Unilever, agreed and strongly agreed with the statement. (Table 8)

Table 8: Respondents’ level of agreement that quality management has contributed to the success of project implementation. Categorized per CG Company

Company	Agree %	Strongly agree %
Nestle Foods	100	0
P&G	87	13
Proctor & Allan	92	8
Unilever	88	12
Total	93	7

As stated by PMI (2015), quality management is all about identifying and following quality requirements, auditing the results of quality control measurements and using quality measurements to control quality, recommend project change if necessary. The responses as represented above testify that the CG companies employ control measures for assurance of quality in the final products and services for their target customers.

The effect of project resources on the success of project implementation in selected consumer goods companies in Nairobi, Kenya

The study considered project resources for the role they played in the project’s successful implementation in the five CG companies. Respondents were asked to give their views and opinions based on their actual experience in their respective projects on the role played by different project inputs namely; funding, equipment, knowledge, human skills and experience and work

procedures. 100% of the respondents agreed that funding was a very important contributor to the success of the project. They agreed to a very great extent that funding was necessary. 99% of the respondents said that work equipment and tools were required to a very great extent in the project. This was followed by human resource skills and experience (96%) and tacit and explicit knowledge (95%). Others that ranked after the first three were ‘organizational procedures’ at 86% and the ‘Company brand and name’ at 80% and even so the last two elements were rated as ‘to a great extent’.

Table 9 shows the mean rates and standard deviation for each of the resources drawn from a 5 point Likert scale where 1 = not at all; 2 = to a very small extent; 3 = to a small extent’ 4 = to a great extent; and 5= To a very great extent. The resources are arranged chronologically from the most important to the least based on the calculated mean rates and standard deviation of

less than 1 in all the 6 instances. Thus, Funding (mean – 5.0), Work equipment and tools (mean-4.98), Human resource experience and skills

(mean – 4.95), Knowledge (explicit, tacit) (mean – 4.94), Company name and brand (mean – 3.78) and Organizational procedures (mean – 3.94).

Table 9: Project resources’ contribution to project implementation success – mean rates and standard deviation

Project resource	Mean	Std. Deviation
Funding	5.0000	.00000
Work equipment and tools	4.9865	.11625
Human resource experience and skills	4.9595	.19857
Knowledge (explicit, tacit)	4.9459	.22767
Company name and brand	3.7838	.44630
Organizational procedures	3.9459	.36609

This finding is in line with Kowang, Long & Rasli (2015) affirmation that financial resources, social capital and human resources are an important factor for production. The high rating for funding echoes their suggestion that financial resource is the key factor for success - that without sufficient financial support, innovative work encounters hurdles and problems that interfere with successful implementation of planned activities.

resources, as used in the implementation of project activities. Table 10 shows the results. 69% of the respondents indicated that they participated to a great extent in the management of the outlined project resources in their respective CG Companies. 28% stated that they participated to a small extent and the remainder (3%) to a very great extent.

The study sought to examine the extent of participation of the respondents in the management of or contribution towards the listed

Table 10: Extent of respondents’ participation in the management or contribution towards project resources

Organization	To a small extent	To a great extent	To a very great extent	Total
	%	%	%	
EABL	8	14	0	22
Nestle Foods	5	14	0	19
P&G	7	14	0	20
Proctor & Allan	4	14	0	18
Unilever	4	15	3	22
Total	28	69	3	100

When asked to specify the resources that they recently utilized (tangible & intangible) to conduct project work, and to explain their effectiveness in ensuring project success, the respondents mostly referred to human capital, work equipment/machinery and funding. For example, they listed capital resource whose availability guarantees the success of a project. If a project is not well financed the objectives are not likely to

be met and that the higher the funding the more successful a project is likely to be.

Respondents from all the 5 CG companies also mentioned human capital. They felt that human capital resource whose output is increased through training is key - that for labor to contribute more to a project's success, it must be skilled. Technological skill was singled out since highly skilled individuals are likely to contribute

positively to the project's success, unlike unskilled staff who might lead to a project's failure.

When probed on their view on the contribution of project resources to the success of projects in

their respective CG companies, majority of the respondents, at a mean rate of 4.07 and standard deviation of 0.25, shared that they agreed to a great extent that resources determined the projects' successful implementation. (Table 11).

Table 11: Contribution of project resources to successful implementation of projects at Unilever, P&G, Proctor and Allan, Nestle Foods and EABL

	Mean	Std. Deviation
Do you agree that availability of project resources has contributed to the success of project implementation in the Company?	4.0676	.25272

Amade, Ogbonna and Kaduru, (cited by John, Mbabazize & Euginia, 2017) who state that availability of resources is one of the critical factors in project success substantiate these findings. They explain that the availability of adequate material and financial resources is critical in funding and supporting project activities.

Successful project implementation

The study considered other elements or causes of successful project implementation in the five CG companies. Respondents were asked to give their views and opinions based on their actual experience in their respective projects on the role played by different project management factors namely: cost of project, project time and the quality of project.

The respondents were asked to give their views on the extent to which they agreed that project time, cost and quality determine successful project implementation. From the responses,

majority of the respondents from the five CG companies agreed to a very great extent that project quality contributed to the successful implementation of projects. On project costs, the highest number of respondents, at 86% indicated that they agreed that the success in this was to a great extent determined by project costs. 8% of the respondents said that they agreed to a very great extent with the statement. On the same question, 5% of the respondents stated that they agreed to a small extent. From their opinion on the role of the quality of project, the majority at 80% agreed to a great extent that quality affected the performance of the projects and so determined their success. 15% affirmed this but 'to a very great extent'. 4% agreed to a small extent. 68% of the respondents agreed to a very great extent that time spent on the project was a determinant of the project's success. 31% agreed to a great extent while only 1% intimated that project time contributed to a small extent to the successful implementation of the project (Table 12).

Table 12: Extent to which respondents agree that project cost, project time and project quality determine successful project implementation

Element	Rating	Frequency	Percentage
Project time	To a small extent	1	1
	To a great extent	23	31
	To a very great extent	50	68
Project Cost	To a small extent	4	5
	To a great extent	64	86
	To a very great extent	6	8

	To a small extent	4	5
Project Quality	To a great extent	59	80
	To a very great extent	11	15

The collected and analyzed data on the project success factors confirm the importance of project quality, cost and time which is further validated by Oracle's JD Edwards Enterprise One (n.d.) observation that Unilever faced unprecedented pressure to provide a greater variety and quality of products and compete with the price pressures. The higher transportation costs and a sluggish economy demand greater control and visibility of product profitability thus reinforcing focus on project cost and timing.

They were invited to state what else they thought were important factors in determining success of the project, factors that were not covered or mentioned elsewhere in the data collection tools. The respondents from the five CG companies were not restricted in the type of feedback required in this section. Respondents mentioned clear communication and co-ordination within the organization. The respondents mentioned all honesty and loyalty of the employees, level of experience of the employees in a project,

transparency in the organization and strong project closure to avoid continuous resource consumption - across the 5 CG companies.

Indeed as Selaru (2012) confirms, resources, be it people, money, hardware or similar, are necessary throughout the whole project development. The type and amount required is dependent on the type of project. The project cannot take off without resources, which must be well allocated using PM techniques, to ensure efficiency and effectiveness. Based on experience and specifics of each project it is possible to foresee the trend of amount of necessary resources in regards to each project phase. Early phases as well as later phases involve less human resources. Hardware, on the other hand, is a resource that grows towards final phases.

The respondents were also invited to state in order of preference which of the four independent variables they considered most important for the successful implementation of their projects. The results are shown on Table 13.

Table 13: Ranking of contributors of success of project implementation at the 5 CG Companies

Rank	Variable	EABL	Nestle Foods	P&G	Proctor & Allan	Unilever	Total Count	Total %
1st	Scope management	4	6	4	10	10	34	46
2nd	Quality management	11	4	2	2	11	30	41
3rd	Resources	8	4	8	1	12	33	45
4th	Risk management	4	9	7	7	10	37	50

The findings indicated that scope management was ranked as most important contributor of successful project implementation by 46% of the respondents from all the five CG companies. On

the second most important contributor, the highest percentage at 41% of the respondents indicated that quality management was second most important. At third position, was resources,

at 45% response rate of the 74 respondents. Risk management was selected by the majority at 50% in the fourth level i.e. as the fourth most important contributor of successful implementation after the other three predictors. The respondents' view of the importance of the variables with scope management ranking first shows that defining and framing a project and its objectives as stated by Lo Valvo (2015) is critical for any project. It is an important part of the project as it entails analysis of the client's needs and specification of the product or service to be created, to ensure that project output is acceptable.

Inferential Statistics

Correlation Analysis

There was a strong positive correlation of an r-value of 0.721 between Scope management and successful project implementation. The same applied to the rest of three independent variables. The r-value of the independent variables - quality management, project resources and risk management - in relation to successful project implementation was 0.696, 0.686 and 0.647 respectively. These results were statistically significant since $p = 0.000$ which is less than the conventional $p < 0.05$ that is cut off for statistical significance. This implies that the relationship between all the variables is very close. A relationship therefore exists since it is above the recommended 30% (Mugenda & Mugenda, 2003).

Table 14: Pearson Correlation

		Correlations				
		Successful project implementation	Project resources	Quality management	Risk management	Scope management
Successful project implementation	Pearson Correlation	1				
	Sig. (2-tailed)					
Project resources	Pearson Correlation	.686**	1			
	Sig. (2-tailed)	.000				
Quality Management	Pearson Correlation	.696**	.577**	1		
	Sig. (2-tailed)	.000	.000			
Risk management	Pearson Correlation	.647**	.577**	.633**	1	
	Sig. (2-tailed)	.000	.000	.000		
Scope management	Pearson Correlation	.721**	.552**	.607**	.662**	1
	Sig. (2-tailed)	.000	.000	.000	.000	

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

This supports the argument by Rolstadas, Tommelein, Schiefloe and Ballard (2014) who state that project management success is measured against the traditional measures of performance against scope, quality, cost, and time, which are also referred to as knowledge areas in PM. The PMI (2015) further affirmed that these areas have specific methodologies and tools for PM success. To emphasize the role of project resources, McKinney (2011) maintains that the level of resourcing validates for the importance and commitment the organization devotes to

profitable production and innovation, which is necessary for the CG Company that aims for successful project implementation.

Multiple Regression Analysis of Variables

A regression model to predict the overall influence of independent variables (scope management, risk management, quality management and project resources) on the dependent variable (successful project implementation) when taken together was obtained as shown in Table 15.

Table 15: Model for influence of four PM determinants on successful project implementation

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.850 ^a	.723	.720	.28902

a. Predictors: (Constant), Scope management, risk management, quality management, project resources

These findings are supported by a coefficient of determination (R^2) of 0.723, inferring that 72.3% of any positive change in project implementation in CG companies in Kenya can be attributed to the four independent variables namely; scope management, risk management, quality management and project resources.

ANOVA for role of four PM determinants on successful project implementation

Analysis of variance (ANOVA) test was done to determine the contribution of the four independent variables in increasing success levels

during project implementation. Subsequently the F-test was used to test the significance of the overall analysis of variance model at a 95 percent confidence level. The p-value of $p < 0.05$ for the F-statistic was applied in determining the robustness of the model.

The four predictors, were found to statistically and significantly predict successful project implementation at $p < 0.05$ significant level for $F_{crit}(69,4) = 82.744$ and actual $p\text{-value} = 0.000$ as shown in the analysis of variance illustrated in Table 16. F_{cal} is greater than $F_{crit}(69,4)$ thus implying goodness of fit of the model.

Table 16: ANOVA for role of four PM determinants on successful project implementation

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.077	4	3.019	82.744	.000
	Residual	2.518	69	.036		
	Total	14.595	73			

Beta Coefficients

The unstandardized coefficients indicated how success of project implementation varied with

each independent variable when other independent variables were held constant (Table 17). The coefficients helped generate the regression optimal model of the role of project

management elements on the success of project implementation as: $Y = 0.206 + 0.421X_1 + 0.286X_2 + 0.207X_3 + 0.146X_4 + 0.147$

Where Y is successful project implementation; β_0 the constant or intercept of the regression line (0.206); β_1 , β_2 , β_3 and β_4 are the regression coefficients of independent variables (0.421, 0.286, 0.207 and 0.146). X_1 , X_2 , X_3 and X_4 represent the independent variables - Scope management, quality management, project resources and risk management respectively, and 0.147 is the error term or standard error.

This implies that increase in scope management by one unit increases success in project implementation in CG companies by 0.421. The improvement in risk management by a unit upgrades project implementation by 0.146 while an upgrade in quality management by one unit

would result in a 0.286 increase in the success of project implementation in the CG Company. Similarly, an improvement in project resources by one unit would result in an increase of 0.207 in project implementation in the CG companies in Kenya.

All the independent variables were significant ($p < 0.05$) as stated by Kumar (2005) who says that p values of less than 0.05 (predetermined significance level) imply that the results are statistically significant. The t-values revealed that scope management ($t = 6.611$) is the greatest determinant for success in project implementation in the CG company followed by quality management ($t = 4.687$), then project resources ($t = 3.890$) and finally risk management ($t = 2.101$). This clearly indicates that all the independent variables significantly influence the dependent variable.

Table 17: Role of four PM determinants on successful project implementation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	Beta		
(Constant)	.206	.147		1.406	.016
1 Scope management	.421	.064	.417	6.611	.000
Risk management	.146	.069	.144	2.101	.039
Quality management	.286	.061	.282	4.687	.000
Project resources	.207	.053	.202	3.890	.000

These findings substantiate statements by Newton (2015) which indicated that scope needs to be constantly monitored to avoid it changing in a way that would break the budget or timescale, or would contravene stakeholder's expectations of the final deliverable. Thus, scope management is crucial as it involves working within expected boundaries and with the stakeholders' interest taken into account. Owing to the importance of quality management as determined by the study, Shaikh (2012) in his study on quality management in FMCG in Pakistan, confirms the role of quality management in the CG company operations. His mention of TQM as an effective enabler of business performance improvement, which has previously been tested, corroborates the study

findings. Quality management is an effective tool for improvising organizational revenue and profitability.

In support of project resources and their role in the project implementation, McKinney (2011) asserts that work processes require a committed level of resources, which include people, money, time and equipment for considerable amount of time. This is further supported by the resource-based view (RBV) which affirms that organizational resources and capabilities determine the organization's capacity for optimal performance. Thus, without the resources, the project would not be rolled out or go through the project cycle, as planned. The Price Waterhouse

Coopers survey of 2014 further supports the importance of resources and scope management. The findings established that changes in scope mid-project (at 41%), poor estimates in the planning phase (at 39%) and insufficient resources (at 30%) - were the top three reasons for project failure in CG Companies.

Kwak and Dixon (2008) explain the fourth place position of risk management, coming after the other three variables in their study of risk management where they established that project managers and senior managers resisted putting effort into improving risk management. Project managers were found to perform risk assessment in a cursory way and risk management happens at the planning phase where it is done as a prerequisite for getting the project plan approved. Despite this positioning of the variable, it has a significant impact on the independent variable.

CONCLUSION AND RECOMMENDATIONS

The findings revealed that all the respondents across the five CG companies agreed that scope management was essential in ensuring that projects were implemented to the satisfaction of the CG Company and all the stakeholders. They strongly agreed that scope management tools and techniques contributed to the success of projects and that they had participated in the scope management processes. They confirmed the application of scope management strategies, including Work Based Structures in the CG companies' projects. It significantly influenced project implementation in Unilever, P&G, Proctor and Allan, Nestle Foods and EABL. As supported by the Theory of Triple Constraints, the scope of a project is a fundamental element as all subsequent processes and resources utilized in the project are reliant on it. A change in the project scope has repercussions on the time and cost which have to subsequently be adjusted and so cause delays or disappointments. This theory supports the independent variable, scope

management as it provides comprehensive description and expected inputs for ensuring that the project boundaries are well defined, to avoid time and cost overruns. This explains the respondents' feedback on the role of scope management in projects in the various CG company projects and departments.

Despite ranking lowest in the order of significance in the coefficients of regression model, risk management has significant influence in the successful implementation of projects. The participation of the respondents in the risk management processes to a very great extent verifies the importance and role of risk management in the CG work processes. In reference to the IPM guidelines and the ATOM Risk Process, the study used the six steps for risk management – namely - identifying risks, assessing risks, planning risk treatment, reporting, implementing and reviewing. Identifying risks through SWOT analysis was ranked highest as a tool applied to a very great extent in the CG companies to help mitigate risks.

Directed by Dr. Juran's "quality trilogy" which is made up of quality planning, quality improvement, and quality control, the study collected data from respondents from the 5 CG companies to establish that quality management significantly determined the success in implementation of projects. Majority of the respondents indicated that process analysis in the company's projects was applied to a very great extent. The rest chronologically arranged included Requirements documentation, Quality management plan, Quality audits, Quality checklists, Process improvement plan, Enterprise environmental factors, Stakeholders register and Quality metrics. The coefficients of regression model drawn from the data to show significance of the influence of the independent variables on project implementation, showed quality management as coming second after scope management.

In reference to the various types of project resources, majority of the respondents indicated that funding was a very important contributor to successful implementation of projects. Work equipment and tools were noted as required to a very great extent in the project. This was followed by human resource skills and experience, tacit and explicit knowledge and organizational procedures. Based on Resource Based View (RBV), the different categories of resources were considered as each playing a critical role in the CG companies' project functions. According to RBV, the presence of different organizational resources and capabilities positively affects the outcome of the production process. The t-values revealed that project resources was third in importance after quality management as a determinant for success in project implementation in Unilever, P&G, Proctor and Allan, Nestle Foods and EABL.

Conclusions

The study concludes that project implementation at the CG Company, regardless of department or project is most successful if the scope is well managed. The scope helps to set the project team onto the right path, to ensure that the project specifications are delivered on time and within the budget boundaries.

Quality management tools and techniques are critical in the CG company considering the consumer changing tastes and preferences, in addition to the intense competition brought about by the competition. Through quality management, the project output measures to the expectations of the standardization bodies and the satisfaction of the consumer who is more aware of his or her right in the consumer goods sector.

The CG company must ensure that it has the right resources, in the right quantities and quality as resources will determine the final output. The project cannot take off without the required resources, which include funds, human capital

and machinery for work facilitation. Tangible and intangible resources have to be carefully planned to ensure their acquisition and allocations match the project resource demand.

Risk management strategies have to be adapted in the CG company if success is to be achieved. The environment within which the CG company operates is as risky as that of any other commercial organization. Risks need to be discussed before, during and after the project cycle to ensure that the right measures are put in place to help mitigate or avoid both internal and external risk.

Recommendations

Scope Management techniques should be fully embraced in CG companies to ensure that managers and supervisors allocate just the right amount of work necessary to complete a project successfully. Preliminary fact finding, documenting and gaining agreement about what needs to be done and how should be undertaken with the all stakeholders. CG companies' scope should be constantly monitored to avoid it changing in a way that would break the budget or timescale, or contravene stakeholder's expectations of the final deliverable.

As more consumers become conscious of what they consume, the demand for quality brands increases and so the CG companies should striving to meet consumers' needs for high quality and trust, through their brands. The study recommends implementation of Juran's ten steps to quality improvement in all the CG companies' functions. The steps as stipulated in the quality trilogy include: - an awareness of the opportunities and needs for improvement must be created, the improvement goals determined, strategy for reaching set goals, training of staff in quality management and tracking of improvements.

The CG companies should ensure that availability and allocation of resources is prioritized at the planning and execution stages of their projects. The required human resources, machinery and other resources need to be well defined, acquired and distributed to the agreed upon work processes for the project to commence and close successfully. Of importance, based on the RBV theory is the availability of financial resources, the level and extent of technical resources and quality of intangible resources (intellectual, technological resources and reputation). The CG Company should therefore ensure that the three areas are all covered as resources are acquired and allocated appropriately as defined in the project work plans.

To minimize and mitigate risks, CG companies should execute risk management strategies as delineated in the ATOM Risk Process. Thus, the CG company should have a risk management plan that will include identifying risks, assessing risks, planning risk treatment, reporting, implementing and reviewing. The outlined steps should be conducted at the beginning and at several points in the course of the projects to ensure that risk is managed effectively. Reporting and reviewing risk continuously throughout the project will be most important in ensuring that the risk responses are working.

Proposed Areas for Future Research

The study recommends expanding the study to include other independent variables that affect project management processes in the different CG

REFERENCES

Abbott, M. L., & McKinney, J. (2013). *Understanding and applying research design*. Somerset, US: Wiley

Adyang, B. O. (2012). *Procurement category management among fast moving consumer goods companies in Kenya*. (Masters Thesis). School of Business, University of Nairobi.

Alexe, C.G. & Alexe, C.M. (2016). The importance of the dimensions of the innovation management in evaluating the innovation capability of the firms in the machine building industry in Romania, *Procedia Technology*, 22: 999 - 1005. <http://dx.doi.org/10.1016/j.protcy.2016.01.127>

company departments and/or projects. There is need for further research that thoroughly considers the relation between the actually achieved outputs and the initially set goals, the project management methodologies and project time management methods used features of the CG project teams, the relation between the project objectives and plan and the actual consumer good outputs, and general management difficulties encountered in practice.

Another area would be to look at applicability of the project management concepts like, activity duration estimating, communications management plan, cost budgeting, formal acceptance and closure, network diagram, performance reports, procurement management plan, product description, project charter, quality management plan, resource planning, risk management plan, schedule management plan, scope management plan, staffing management plan and Work Breakdown Structure - and their application in an actual innovation process or department of the CG company from the start to the end – to find out the value of PM in the local and multinational CG Companies in Kenya.

The study recommends the establishment of a guide or manual for curriculum on the main project management areas that may be adapted for the management of work processes in the CG sector. The guide should contain practical ways for the management to implement PM strategies without seeming to do much more than necessary.

- Association for Educational Communications and Technology [AECT]. (2001). *What is descriptive research?* In: The Handbook Of Research For Educational Communications and Technology. Retrieved from <http://www.aect.org/edtech/ed1/41/41-01.html>
- Bhatti, T.R. (Ed.). (2005). *Critical success factors for the implementation of enterprise resource planning (ERP) empirical validation*. Paper presented at The Second International Conference on Innovation in Information Technology (IIT05), Zayed University, College of Business, Dubai, UAE.
- Bowers, J., & Khorakian, A. (2014). Integrating risk management in the innovation project, *European Journal of Innovation Management*, 17(1): 25-40, doi: 10.1108/EJIM-01-2013-0010
- Centre for Business Practices (2005). *Centre for measures of project management performance and value: A benchmark of current business practices*. Retrieved from http://www.pmsolutions.com/audio/PM_Performance_and_Value_List_of_Measures.pdf
- Chandran, C. (2004). *Research methods with illustrations from Christian ministries*. Starbright Services Ltd.
- Changellenge (2014). *Case study Unilever: Towards a new organization*. Retrieved 2017, May 12 from <http://changellenge.com/wp-content/uploads/2014/04/CL-Unilever-Organizational-changes-in-INMARKO-ENG.pdf>
- Cooper, P. R. & Schindler, P.S. (2008). *Business research methods* (10thed.). Wiley& Sons: New York.
- Cozijnsen, A.J., Vrakking, W.J. and van Ijzerloo, M. (2002). Success and failure of 50 innovation projects in Dutch companies. *European Journal of Innovation Management*, 3(3): 150-159.
- Creative Research Systems (2016). *Correlation*. Retrieved from <https://www.surveysystem.com/correlation.htm>
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (3rd ed.). Thousand Oaks, California:Sage Publications
- Euro monitor International (2016). *Breakfast cereals in Kenya*. Country Report. Retrieved from <http://www.euromonitor.com/breakfast-cereals-in-kenya/report>
- Greenland, S. (2005). Target population. In: *Encyclopedia of Biostatistics*. John Wiley & Sons. <http://dx.doi.org/10.1002/0470011815.b2a03126>
- Gwaya, A.O. (2015). *Development of a project management evaluation model for the construction industry in Kenya*. (Phd Dissertation). Nairobi: Jomo Kenyatta University of Agriculture and Technology. Retrieved from <http://ir.jkuat.ac.ke/>
- Harter , J. (2015, March 16). Engage your long-time employees to improve performance. *Harvard Business Review*. Retrieved from <https://hbr.org/2015/03/engage-your-long-time-employees-to-improve-performance>
- Hassan, Z. A., Schattner, P., & Mazza, D. (2006). Doing a pilot study: Why is it essential? *Malaysian Family Physician*, 1(2 & 3), 70-73
- HR Council (2018). *HR planning*. Community Foundations of Canada. Retrieved from http://hrcouncil.ca/hr-toolkit/planning-risk-assessment.cfm#_secA3

- Hsieh, S. F. & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288
- John, M. P., Mbabazize, M., & Euginia, N. (2017). Role of project resource availability on project success in banking industry in Rwanda: A case of KCB ATM MIS project. *European Journal of Business and Social Sciences*, 6 (2), 90-98
- Johnson, S. (2018). Levels of management decision making. *Hearst Newspapers*. Retrieved from <http://smallbusiness.chron.com/levels-management-decision-making-58222.html>
- Keegan, A., & Turner, J.R. (2000). *The management of innovation in project based firms*. ERIM report series research in management. Retrieved from <https://core.ac.uk/download/pdf/6906041.pdf>
- Kostopoulos, K.C., Spanos, Y.E., & Prastacos, G.P. (2004). *The resource – based view of the firm and innovation: Identification of critical linkages*. Greece: Athens University of Economics. Retrieved from http://ecsocman.hse.ru/data/165/663/1219/rb_view.pdf
- Kothari, C.R. & Garg, G. (2014). *Research methodology: Methods and techniques* (3rd ed). India: New Age International
- Kothari, C.R. (2004). *Research methodology: Methods and techniques*. (2nd ed). New Delhi: New Age International
- Kowang, T. O., Long, C.S., & Rasli, A. (2015). Innovation management and performance framework for research. *International Education Studies*, 8 (6): 32-45
- Kwak, Y.H., & Anbari, F.T. (2009). Analyzing project management research: Perspectives from top management journals. *International Journals of Project Management*, 27(2009): 435-446
- Liamputtong, P., and Ezzy, D. (2005). *Qualitative research methods* (2nd ed). South Melbourne, VIC: Oxford University Press.
- McKinney, P. (2011). *The 7 immutable laws of innovation: Follow them or risk the consequences*. Retrieved 2017, May 10 from <http://philmckinney.com/the-7-immutable-laws-of-innovation-follow-them-or-risk-the-consequences/>
- Mugenda, O. and Mugenda, A. (2003). *Research methods: Quantitative & qualitative approaches*. Retrieved from http://www.msra.or.ke/documents/Research_Methods_Quantitative_Qualitative_Approaches.pdf
- Monette, D.R., Sullivan, T.J., & DeJong, C. R. (2002). *Applied social research*. Orlando, FLA: Harcourt Press
- Nestle (n.d.). *About us*. Retrieved from <http://www.nestle-ea.com/en/aboutus>
- Newbert, S. L. (2007). Empirical research on the resource-based view of the firm: an assessment and suggestions for future research. *Strategic Management Journal*. 28: 121 – 146. Doi: 10.1002/smj.573
- Neyestani B. (2017). *Principles and contributions of Total Quality Mangement (TMQ) gurus on business quality improvement*. MPRA Paper No. 77282. <https://doi.org/10.5281/zenodo.345428>

Oracle's JD Edwards Enterprise One (n.d.). *Solving the real challenges in the consumer goods industry*. Retrieved from <http://www.oracle.com/us/products/applications/jd-edwards-enterpriseone/consumer-goods-ebook-2638055.pdf>

PricewaterhouseCoopers [PwC]. (2014). *Project management: Improving performance, reducing risk*. Retrieved from <https://www.pwc.com/jg/en/publications/ned-presentation-project-management.pdf>

Proctor and Allan (2017). *About us*. Retrieved from <http://proctor-allan.com/about-us/>

Proctor & Gamble (2016). *P&G 2016 Annual Report*. Retrieved from https://www.pg.com/it_IT/pdf/Relazione_Annuale_2016.pdf

Project Management Institute [PMI]. (2011). *Global dynamics of innovation and project management*. Pennsylvania, USA: PMI. Retrieved from <http://www.pmi.org/-/media/pmi/documents/public/pdf/white-papers/global-innovations.pdf>

Project Management Institute [PMI]. (2013). *A guide to the Project Management Body of Knowledge (PMBOK® Guide)*, (5th ed.). Pennsylvania, USA: PMI

PMI. (2015). Capturing the value of project management. *Pulse of Profession*, 5 (17).

Ramanuj, M. (2004). *Product management in India*. India: PHI Learning

Roberts, P., Priest, H., & Traynor, M. (2006). Reliability and validity in research. *Nursing Standard*. 20 (44): 41-45

Rolstadas, A., Tommelein, I., Schiefloe, P.M., & Ballard, G. (2014). Understanding project success through analysis of project management approach. *International Journal of Managing Projects in Business*, 7(4): 638 - 660

Selaru, C. (2012). Resource allocation in project management. *International Journal of Economic Practices and Theories*, 2 (4)

Semuel, H., Siagian, H., & Octavia, S. (2017). The effect of leadership and innovation on differentiation strategy and company performance. *Procedia - Social and Behavioral Sciences*, 237: 1152-1159

Shane, S. (ed). (2008). *Handbook of technology and innovation management*. Case Western Reserve University: John Wiley and Sons

Shields, P., & Rangarjan, N. (2013). *A Playbook for research methods: Integrating conceptual frameworks and project management*. Stillwater, OK: New Forums Press.

Somba, K. (2015). *Assessment of the Ministry of Public Works supervision capacity in the construction of public buildings in Kenya*. (Masters thesis). Jomo Kenyatta University of Agriculture and Technology, Nairobi

Trott, P. (2005). *Innovation management and new product development*. Prentice Hall.

Unilever (2017, May 17). *Blue band kicks off good breakfast campaign for school children*. Retrieved from <https://www.unilever.co.ke/news/press-releases/2017/blue-band-kicks-off-good-breakfast-campaign-for-school-children.html>

Wangari, N. (2016, October 26). The top fast moving brands in Kenya. *Geopoll*. Retrieved from <http://blog.geopoll.com/the-top-fast-moving-brands-in-kenya>

Yin, R. K. (2009). *Case study research: design and methods*. (4th ed.) Thousand Oaks, CA: Sage.

Zulu, S. (2007). *Impact of project management on project performance: A structural equation modelling approach*. In Boyd, D (Ed). Procs 23rd Annual ARCOM Conference, 3-5 September 2007, Belfast, UK, Association of Researchers in Construction Management, 651-660