

# EFFECT OF MANAGEMENT INFORMATION SYSTEM ON THE PERFORMANCE OF KAPSARA TEA COMPANY IN TRANS NZOIA COUNTY

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**Abstract:** The purpose of this study was to find out the effect of management information system (MIS) on performance of Kapsara Tea Company in Trans Nzoia County. The study was guided by the following specific objectives; to assess the effect of efficiency on organizational performance in Kapsara Tea Company in Trans Nzoia County, to evaluate the effect of customer's satisfaction on organizational performance in Kapsara Tea Company in Trans Nzoia County, as well as to determine the effect of cost on organizational performance in Kapsara Tea Company in Trans Nzoia County. The study was guided by the following theories; the stakeholder's theory, the performance theory and the task technology fit theory. Descriptive research design was used to carry out the investigation because a descriptive research design aims at describing the distribution of a phenomenon in a population and thereby establishing the facts in the study. Descriptive research design was also chosen because it provides great depth of responses resulting in better and elaborates understanding of the phenomenon under investigation. The study's target population was 65 comprising of all top management and the department of ICT employees. Due to the target population being small, the study worked with entire population therefore using census. Data collection instrument was questionnaires which was dropped and picked after the respondent fill in. piloting was also done to test the validity and reliability of the data collection instrument. Data was first coded, edited and analysed using regression analysis. The study is significant to the stakeholders in all tea companies. Basing on the study, the null hypothesis  $H_{01}$ : efficiency does not have statistically significant influence on organizational performance in Kapsara tea company in Trans Nzoia county: was rejected therefore, efficiency has a significant influence on organizational performance in Kapsara tea company in Trans Nzoia county. The null hypothesis  $H_{02}$ : customer satisfaction does not have statistically significant influence on organizational performance in Kapsara tea company in Trans Nzoia county: was rejected, therefore, customer satisfaction has a significant influence on organizational performance in Kapsara tea company in Trans Nzoia county. The null hypothesis  $H_{03}$ : cost does not have statistically significant influence on organizational performance in Kapsara tea company in Trans Nzoia county: was rejected, therefore, cost has a significant influence on organizational performance in Kapsara tea company in Trans Nzoia county. Based on these findings, the study recommends that the management should bring out the meaning and significance of management information system to improve organizational performance in factories and other sector. The management should also train their employees to bring out the required level of competencies for higher performance as well as enable them to be conversant with systems during this rapid changes in technology. The employees should also be made to understand what is expected of them in an ever changing environment to try to be more efficient in their performance. The management should equip their employees with tools and skills through regular trainings on the changes in technology to reduce the cost of information and invest more on profitability of the company. The management should also embrace management of information system in an organization that reduce the cost of acquiring and analyzing information, permits organizations to reduce agency costs, the number of middle level managers and clerical staff in order to increase revenues. The county of Trans Nzoia at a large should make sure that organizations keep reinventing their business procedures, processes, policies, and their market niche, as a way of staying relevant and sustainable and have sizeable control of their market in terms of the products and services they are offering on the market.

**Keywords:** Timely project completion ,Cost estimation and Stakeholder satisfaction.

## I. INTRODUCTION

### Background of the study

Due to uncertainty of economy as well as technological changes, there has been need for both products and service organisations to speed up the replacement of IS (Information System) by adding to it new capabilities which can enable them improve their products and service delivery to its customers and as a result enhance its performance. "Providing excellent information and support on IS capability in regard to performance is the most critical and very challenging issue that is facing the current contemporary service industries globally (Hung et al., 2003)". Performance is a strategic way of thinking by every manager of a firm that is gearing towards defining as well as measuring the performance of an organization (Nzuve & Nyaega, 2011). The significant questions facing business sector is that "why some of the hotels are performing exceptionally well while some of them fail drastically". This aspect drove a study to be done on "the drivers of organizational performance", (Iravo, Ongori and Munene 2013) this prompted the researcher to focus on "what drives outstanding performance in some hotels." Measuring performance is one of the tools but among many that hasten firms to monitor performance and identify areas that needs special attention, enhance motivation, improve communication and strengthen Accountability. Very good and focused organizations requires to adjust itself in order to rhyme with information systems capabilities for it to gain competitive advantage as established by (Donaldson, 2006). Management information system (MIS) cannot only be defined as the development but also as the well use of IS which can help businesses to achieve its goals and objective. From the definition four key elements can be sighted: development, use, information system, objectives and business goals (kroenke, 2011). A system can also be further defined as an assembly of components that interrelate to achieve a given reason, and information system (IS) can be defined as a group of component that interrelate to produce information. Components of an information system can be categorized as: computer software, hardware, procedures, data, and people (kroenke, 2011). These five major component are existing in every information system. When someone uses a PC to jot down a report, he or she is using hardware (keyboard, storage disk, and monitor), software includes (word-processing program), data (words, sentences, paragraphs), procedures (methods used to start the program and enter, save as well as back up), and people (is the person doing it). Information is knowledge resulting from data, and data is defined as recorded facts or figures (kroenke, 2011). Characteristics of information quality according to Turban and Volonino, (2010) are correctness, complete data and timely : manufactured at the right time of its intended use. Relevancy: it should be both to context and to the subject. Sufficiency: it should be for the purpose of which it is being generated. Cost: Worth of its cost: suitable relationship should exist among the cost of information as well as its value to the organisation. Information technology (IT) and information system (IS) are somehow two related terms, but they are different to be used interchangeably. (IT) can be referred to as the products and methods, inventions and standards that are employed to produce information and IT refers to the software, hardware and data components, and information system (IS) is assemblage of software, hardware, data, procedures and people that produce information. Organization's operations and making of decisions are based on well provided information which can be generated by individuals or by given Information system technology. These systems are used to collect, organize, and produce an output which would back up fast, sound and efficient decision making in business field. Firms which accept new management techniques and systems with major purpose as being to enhance process of decision-making, they are the once that improves results as well as reduce the output costs of business process. This is therefore the way to enhance company operation effectiveness resulting from improved performance, AlMaryani and Sadik, (2012). Generally, researchers assume that managers are rational agents and hence they cannot accept any management information systems which cannot improve operations within their organization resulting in heightened company's financial performance (Chenhall, 2003). The main objective of enhanced management information system is to considerably make improvement in decision-making and hence influencing on sound financial performance. Firms that rate their MIS high, will believably accept it to a larger extent than the one that do not, with the eventual goal of maintaining as well as improving overall financial performance which is the key objective of the IS. Basing on studies done by different individuals, MIS are formal systems of presenting given management with timely as well as appropriate information which is crucial for decision making within a given organization (Leonardi and Bailey, 2008). Sound management information system provides organization with information regarding the past, the present and even project future on related developments within and without the organization (Baccarini, 1999). The MIS may be described as one of the most integrated and well organized system that is used for collecting applicable data from both inside and outside the organization, then transforming it into correct and precise information as well as giving the same information to concerned executives. The primary purpose of MIS is to "provide the right information to the right people at the right time" according to (Gray, 2000).

Even if a system provides correct and precise information but it does so to people who are not regarded as being part of managerial staff, then that system should not be viewed as being part of a MIS (Belassi and Tukul, 1996). While these systems may contain alike interfaces as MIS, it cannot be regarded as part of MIS. Such systems includes “salary acknowledgments and excise duty statements”. Generally, Management Information Systems deals with information that is collected and analyzed systematically and routinely and more so in agreement with a well-defined and established rules and regulations. In addition, MIS forms part of formal information network within a given organization. Any good Information that has greater managerial planning importance is seldom gotten at golf courses and therefore this information cannot be regarded as doing part of MIS, instead “one-shot market research data accumulated to measure the full potential of a new product does not come within the goal of a Management information system by our definition, seeing as such information which is systematically retained is not collected on a regular basis” (Belassi and Tukul, 1996). Often, the information provided by a MIS ,supports managers in plan making and decisions control within a particular organisation (Jorgenson, 1989). Each organization, for it to function appropriately, it must be able to execute a particular operation, “even if it is a wholesaler trade, car manufacturer or whoever has to give water to their areas of jurisdiction” (Wu and Lee, 2007). These sound operations within an organisation need to be accompanied by a scrupulous planning, which means the car manufacturer should have to decide on the type of the car and the wholesaler should henceforth determine which pumping period to be installed for five-year period (Gray, 2000).Any company or organization should be able to control their operations according to the plans as well as targets developed in the preliminary planning process (Jorgenson, 1989). For instance the car manufacturer should make decisions on how to improve deviance or how to review his plans. Alternatively, the wholesaler must regulate the influences that his commissions has on sales and therefore make decisions that fix the conflicting trends that could jeopardize his work and as a results affect his role in supply chain(Wu and Lee, 2007). “Management information systems take care of planning and control (Leonardi and Bailey, 2008)”. Good and Elaborate MIS exists for information that is crucial to organization operations.The success of any MIS can be attained by studying its outcome on results. Different authors accord with this concept and directly or indirectly affirm that “the goal of MIS should be to obtain an improvement and enhancement in the firm’s financial performance”. For instance, authors narrates that MIS should help companies to take more appropriate decisions or improve their complete financial performance (Dopuch, 1993); the general objective of MIS is to enhance overall financial performance and not to get a more accurate costs (Cooper and Kaplan, 1992); therefore organisations should apply innovation in order to get advantages that indirectly or directly influence organisation’s economic performance pointers (Cagwin and Bouwman, 2002); or basic objective of MIS is to expand and improve the potentiality of the system in enhancing innovation and therefore firm’s financial performance at large (Ranganathan and Kannabiran, 2004).

As per investigation carried out by (Naranjo-Gil 2009), “Management information system has an influence on flexibility-based strategic performance and cost-based strategic performance, taking into account the decentralization of responsibilities, updating customer knowledge and customer participation in management, the cooperation with other units with the scope of increasing the firm budget, and actualization and use of management information” (Slotegraaf and Pauwels, 2008).In their research, they combined with prior knowledge in MIS and a study was made on how dissimilar team’s compositions interrelate with a MIS directly and hence influencing on strategic performance, they too focused on flexibility as well as reduction of costs. The resultant exhibit on effect of MIS on strategic performance is managed and administered by top management team diversity. Extent to which MIS is giving information which outlines possible future events, efficiency and output rates, and information regarding effect of numerous events that also relates to the influence of decision of employees has been on the performance of other divisions within the organisation. (Naranjo-Gil, 2009).Research done by Kirsch (1997), suggested the direct relation between behaviour control, outcome control, self-control, clan control with the performance of a firm, as well as with the controlling outcome of the complicated risk on a given firm. Kirsch (1997) attempted to find whether the user expected the development teams to follow given intelligible written series of steps to the achievement of project goals or if user assumed the development team to follow clarified and well written system development rules within the organisation. Again, based on data gotten from previous research on MIS behaviour, outcome, projects, and self-control are determined to be unquestionably connected to system performance of projects. However, complication risks generates a mixed controlling effect on the affiliation between control and performance. According to the study done by Qrunfleh and Tarafdar (2014), the existing link between supply chain (SC) strategy with supply chain IS strategy was examined, and how it impacts on supply chain performance as well as firm performance at large. Preceding research done by Maiga and Jacobs (2003), “the interface between management control and information technology is an underdeveloped research area with a knowledge gap concerning its implications for

financial performance.” The current research model analyzes the interface effect of cost control systems with IT integration on the company financial performance. The research showed that as IT integration and cost control systems holds no important influence on firm financial performance, they associate to positively impact manufacturing firm financial performance. MIS improves the quality of plants by giving them suitable information which is used for quality decision-making. MIS changes the higher amount of data into compiled form and thereby avoiding the possible ambiguity which may arise while managers are busy with detailed facts. (Ryals, 2005). MIS serves as a link between managerial forecasting, controls, assembles, stores, processes, retrieves, evaluating and disseminates the needed information. It also mends the capacity of management to analyze and assess as well as increase comprehensive company performance. MIS is key factor is facilitating and attaining efficient decision making in any organization. Currently, firms are in the race to enhance its capability for it to survive in the current competitions of the new century of global market. Therefore, firms are constantly attempting to advance their agility level through improving the decision making procedures in order to be more efficient as well as highly effective so that they can meet the successive fluctuations of the current market. According to Whitten et al. (2004), they categorically stated that "information is an arrangement of people, data, process, and information technology that interact to collect, process, store and provide as output the information needed to support an organization," this shows that IS is an prearrangement of groups, processes, data as well as technology that act together for the purpose of accumulating, processing, storing and providing information output that is needed to enhance and speed up the procedures of decision making. If not only required but also relevant information needed in decision-making process or an organization planning is not readily available at the appropriate time, then there is a good chance to make poor organization planning, poor priority of needs, inappropriate decision-making, as well as defective programming or scheduling of activities (Adebayo, 2007).

Concept of information attracts the attention of different professionals in different fields for example in the field of computer science, business and management, economics, political science, communication and information studies etc. (Newman 2001). However, the big questions being asked are: what type of information is need? How can coordination between different departments both internal and external enhance sharing of information at real time accelerate and enhance decision making process in order to avoid decision making errors? How these Information management can play an essential role in the decision making process? A few authors have discovered that the critical information requisite by midlevel and strategic level management is efficiently and precisely provided by MIS. A research has deliberated that the limitations and deficiencies in the process of MIS performance are the primary reason of fading the efficiency of decision-making process in the organization (Fabunmi, 2003; Knight Moore, 2005).

### **Global Perspectives of Management Information System**

As businesses moves rapidly to an international integration, MIS roles becomes very vibrant in integrating activities within a firm as well as assist communication as well as coordination across firms boundaries. MIS have just made it more possible for a firm to get best out of its resources and realize its goals, making the organizations meet its expectations in this era of stiff competition (Gupta, 2013). Certainly, business is carried out in a global environment and simply cannot do without MIS. The involvement of MIS in management is changing the way business and organisations of all types and sizes are run and is significantly aiding managers reduce ambiguity when making decisions (Lucey, 2005). Advantages of MIS is differentiated in two ways of soft and hard benefits (Dharni, 2010). Usually hard advantages are related to reduction in cost like reduction in data entry staff which is made possible due to the inclusion of electronic ordering system or revenue generation like the increased throughput resulting from new production control system. The benefits which are termed as soft benefits encompass of indirect, intangible, and strategic benefits. Indirect advantages are majorly easy to size but cannot be wholesomely attributed to proposed investment and they can only be appreciated due to further investments and enabled by new systems. Benefits which are Intangible can be attributed to a specific application but they cannot be expressed easily in terms of quantitative. Implementation (LAN) Local Area Network across an organization, it provides the infrastructure on which valuable that shared application can then be implemented. And strategic advantages refer to positive influences that are appreciated in the long run and usually come as a result of the synergistic interface among a number of contributing factors. According to Alter (2008) IS is a working system whose activities and processes are devoted to processing of information, i.e. transmitting, capturing, retrieving, storing, manipulating, as well as displaying information. Globalisation has encouraged top thinkers and business houses to act globally so as to advance competitive advantage. Organisations have to withstand tough competition as well as new technology (Zhang and Morris, 2014; Khasawneh and Alzawahreh, 2012; Messersmith et al., 2011), thus forcing management to find new ways of organizing work as well as employment (Guest, 2011). Yeo (2002) states that IS denotes wide combination of computer hardware. Usage and infiltration of MIS worldwide is growing remarkably.

### Regional perspectives of management information system

Currently, IS technology is becoming crucial and playing acute role in contemporary society and vividly changing economy and how modern business is being done. Influence of information ICT on organization performance has been studied primarily using “cost reduction and productivity measures” (Liang, You and Liu, 2010; Das, Yaylაცეგი, and Menon, 2011). Information Communication Technology up surges productivity as well as operational efficiency in a particular business procedures by decreasing costs of production as well as impacting on immaterial resources like “quality improvement in design procedures or life-cycle enhancement in inventory management systems (WachiraMuturi, Sirma, 2014).” ICT too enhances synchronization of activities by improving inside and outside communication of organization at the same time information systems (Latham, 2011).

### Local Perspectives of Management Information System

Kenya as a country is devoted to developing MIS as spelt out in the Vision 2030 article on training and education which is under the social pillar by arming secondary schools with content delivery systems. Kenyan National Treasury allocated Kshs 53.2 billion for the purchase of 1.35 million laptops within the period of three years for class one pupils, developing digital content, training of teachers and rolling of computer laboratories for class 4 to 8 in all schools in Kenya (GoK, 2014). The quality of information has been used to make decisions among other things in a project can greatly affect the outcome of the project; if wrong/ inadequate information is generated it will lead to wrong decisions made and consequently negatively affect the outcome of the project. MIS should provide project team members with useful information that can be used in decision making by storing, keeping, processing and managing the information resources (Lee et al. 2011).

### Statement of the Problem

According to Barry (1998) “information is a generic term, because it has been described as the livewire of any enterprise (public, private, local firm, multinational company, manufacturing, merchandise and franchise business, retailing stores, multiple chain stores or service oriented organization ). It provides the relevant concept and intelligence to enable the right thing to be done at the right time. In accordance to this good Information should therefore be: accurate and timely, specific and organized for a purpose, presented within a context that gives it meaning and relevance and can lead to an increase in understanding and decrease in uncertainty. Information is thus a valuable asset because it can affect behavior, a decision, or an outcome. For example, if a manager is told his/her company's net profit decreased in the past month, he/she may use this information as a reason to cut financial spending for the next month. A piece of information is considered valueless if, after receiving it, things remain unchanged”. The MIS support in providing needed information to make decisions with precise, effectiveness and efficiency, and as far as accuracy, comprehensiveness and timeliness in the providing information increase the efficiency of those decisions, which leads to improved performance (Al Tai, 2005). However, there have been challenges of network failures, time wastages, and slow system performance, low quality of services resulting in poor service delivery, costly services and high cost of production. Therefore the study seeks to analyze the effect of management information system on performance of Kapsara Tea Company.

### Research Objectives

#### General Objectives

The general objective of this study was to analyze the effect of management information system on the performance of Kapsara Tea Company.

#### The specific objectives of the study were:

- i. To assess the effect of efficiency on organizational performance in kapsara tea company in Trans Nzoia county.
- ii. To evaluate the effect of customers satisfaction on organizational performance in kapsara tea company in Trans Nzoia county.
- iii. To determine the effect of cost on organizational performance in Kapsara tea company in Trans Nzoia county.

#### Research Questions

- I. What are the effects of information efficiency on the performance of Kapsara Tea Company?
- II. What is the effect of customer satisfaction on performance of Kapsara Tea Company in Trans Nzoia county
- III. What is the effect of cost on performance of Kapsara tea company in Trans Nzoia county

**Hypotheses**

- I. Ho1: Efficiency does not have a significant effect on organizational performance in Kapsara Tea Company in Trans Nzoia county.
- II. Ho2: Customer satisfaction does not have a significant effect on organizational performance in Kapsara Tea Company in Trans Nzoia county.
- III. Ho3: cost does not have a significant effect on organisation performance in Kapsara Tea Company in Trans Nzoia county.

**Significance of the Study**

The study is of key importance to the selected tea companies as well as other firms in the same sector in terms of determining the benefits accruing owing to integration of MIS their operations. This enabled tea firms in gauging the model in terms of enhancing organizational effectiveness. The study is useful to other researchers interested in the problem under investigation as the study has laid a platform on which further studies related to the subject can be carry out. The study would give a theoretical basis about successful adoption of MIS to firms. MIS provides information regarding financial resources, obligations, and activities of an enterprise that is envisioned for use primarily by both inside and outside decision makers – director, investors and creditors. This study also provide useful information in making investment as well as credit decisions in a particular organization.

**Justification of the Study**

The justification of this study lies on the premise that it discourses organizational idea employing MIS technology, which is important topics in modern management doctrine. Management information system is a vital source of management information for the survival and durability of the organization especially in organizations that seek to adopt a strategy of modern management which allows the involvement of workers in decision making, exploiting vital opportunities, as well as increasing their competitiveness and creativity. Additionally, there is much limited literature locally to tie the concept of Management information System and organizational performance. Since this concept (perceived management information systems technology) is relatively new in this environment, and by subjecting this concept to an applied study gives the study a clear importance within the academic framework for advancing management methods in the acquisition of knowledge and skills which can be applied to improve performance and increase productivity within organisations.

**Scope of the study**

This study will cover an examination of MIS on effective production, marketing and finance management at Kapsara tea factory. The study was conducted between November 2018 and March 2019. The study focused on infrastructure, database and software and mainly using questionnaires and interview techniques. This study concentrated on the three departments because all levels of accounting managers share all accounting reports of the organization and financial management information systems (FMIS) provides financial information to all financial managers within an organization which includes the chief financial officer who then analyzes historical and current financial activities of the organisation.

More than any functional area great advance in technology have impacted operations, as a result manufacturing operations have changed. For instance, inventories are provided just in time so that abundant amounts of money is not spent for warehousing huge inventories in some instance raw material are even proceeds on rail to load cars waiting to be sent directly to the factory thus there is no need for warehousing. A marketing MIS support managerial activity in the area of product development, distribution, pricing decision, promotional effectiveness and sales forecasting more than any other functional.

**2. LITERATURE REVIEW****Introduction:**

This chapter consists of theoretical review, conceptual framework and review of variables, .critiques of existing literature, research gaps and summary.

**Theoretical Framework**

The study was guided by task-technology fit theory (TTF), stakeholder theory and theory off performance as discussed below:

### Task-Technology Fit Theory (TTF)

Task-technology fit (TTF) theory grasps that IT has a positive impact on individual performance and can be well used if the abilities of the IT match the tasks that the user should perform (Goodhue and Thompson, 1995). Goodhue and Thompson (1995) established a measure of TTF that consisted of 8 factors which includes quality, authorization, locatability, compatibility and production timeliness, ease of use/training, systems reliability and relationship with users. Goodhue and Thompson (1995) established that the TTF measure, in conjunction with utilization, to be an important predictor of user reports of better job performance and effectiveness that attributes to their use of the system under investigation. Even though the Goodhue and Thompson (1995) modelled functions at the individual level of analysis, Ziguers and Buckland (1998) presented an equivalent model but operating at the group level. From the initial work, TTF has been applied in the context of a diverse range of IS including e-commerce systems and combined with or used as an extension of other models related to Information System outcomes such as the acceptance of technology model (TAM). The TTF measure presented by Goodhue and Thompson (1995) has undergone numerous modifications from the time of its inception in order to suit the purposes of the particular study. For an information system to have a positive influence on individual performance, then the technology must be utilized, and there must be a good fit with the tasks the technology supports (Goodhue & Thompson, 1995). If either the task-technology fit of the technology or its utilization is lacking, then the technology will not improve performance. This theory has been formally recognized in studies such as those by Pentland (1989), who established that “IRS auditors had positive attitudes toward PCs and utilized them extensively, but that the PCs had little positive impact on their performance, or even negative impacts”. As per Pentland (1989), the PCs were being utilized for inappropriate tasks that is not in goals of organisation, that is, tasks where the technology was not a good fit with task needs. Task-technology fit theory is defined as ‘the matching of the abilities of technology to the needs of the task’ (Dishaw and Strong, 1999). Additionally, information technology appropriateness is a robust and valid construct for understanding factors of organization technology fit that impact organizational performance (Khazanchi, 2005). Applying task-technology fit theory, (Lin and Huang 2008) determined the key factors affecting knowledge management systems usage. On the basis of the work of Lin and Huang (2008), self-efficacy in knowledge management systems is substantially and positively correlated to perceived task-technology fit. So, using TTF theory, they established that consumers might use mobile phones to purchase tourism goods because the abilities of the MTS technology match the usage demands. TTF theory directly affects electronic learning system utilization and indirectly affects electronic learning systems (Yu and Yu, 2010). User agility should to be taken into consideration when using the theory of TTF to mobile IS (Gebauer and Tang, 2008). For a particular technology to be used, the technology must be a proper match with the task at hand; in a wireless environment, this includes use of location information (Junglas *et al.*, 2008). The geo-location abilities of smart mobile devices allow mobile shoppers to search for offers in their immediate areas, saving both time and effort, thus matching the technology with the task at hand. The research model builds on two basic associations that is the theory of TTF, namely (a) the association between task characteristics and the need for various functions and features of a technology, and (b) the association between the fit of technology requirements and technology performance, and system evaluation (Dishaw and Strong, 1998), all from the perspective of the user with Gebauer and Gisbury. (2006), we model a business task based on its level of difficulty, as characterized by non-routineness, Interdependence and time-criticality. Task-technology fit is modelled as the difference between the user-perceived requirements (i.e. importance) regarding various functional and non-functional features and an equivalent performance of technology. The particular focus of the present research study is on influence of user mobility on the associations between task difficulty and technology requirements. Task-Technology Fit (TTF) Model Task-technology fit (TTF) model is commonly used model to evaluate how information technology leads to performance by assessing the match between the task and technology characteristics (Wu & Chen, 2017). Consumers ‘ability to use the technology is believed to be determined by both the characteristics of the task and the technology. Although the model has been widely used in many information technology researches, researches that integrate TTF and TAM is somewhat lacking and vague. TTF are of two dimensional – Task-Technology fit (TTF) and Individual-Technology fit (IT). Individuals ‘degree of familiarity and length of experience with information system are normally associated with their adaptation behaviour (Wu & Chen, 2017). This scenario depicts individual technology fit (IT). The more experienced one is with a system, the better he or she knows and understands how the system works. On the other hand, task-technology fit (TTF) is the degree of how the abilities of the IS tie with the tasks that the employee must perform (Goodhue, Klein & March, 2000).

### Stakeholder Theory

Stakeholder theory involves the identification of various stakeholders of the firm and also determining performance indicators that measures their satisfaction for them. The theory offers spheres of social inclination in regard to enterprise objectives while focusing on maximization of organizational value. It presents a thorough approach when viewing performance in line with various stakeholders to the business. An individual or a group of persons that are affected or affect realization of organizational goals is or are taken to be among the many stakeholders. Amongst the varied stakeholders are the shareholders, customers, employees, trade bodies, suppliers, government, political groups and many other sections of the society. They generally have power, legitimacy, claims and demands which management of firms must recognize and attend to (Santos & Brito, 2012). Project performance is the focus of many stakeholders of a business organization. This theory is relevant for this study since organizations usually get involved in projects that have to succeed. Thus, project performance in a business should always be the focus on a continuous basis.

### The Theory of Performance

Theory of Performance establishes and relates six concepts to form a framework that are used to elucidate performance and how performance improvements can be achieved to produce a valued results. These can be achieved by an individual or a group of people who are engaging towards one main effort. To develop a performance is a long journey, and the level of performance describes the location in the journey. Current level of performance entails six components: knowledge, context ,identity, skills, personal factors, as well as fixed factors. The three proverbs are proposed for efficient and effective performance improvements toward performance i.e. the performer's mindset, getting used to an enabling environment and being engaged in reflective rehearsal. Performing is to take a complex sequence of actions that integrate skills with knowledge to produce a valuable results. In some instances, the performer is an individual while in other instances of performances the performer is a group of people who are cooperating such as an academic department, committee, research teams, student teams, or a university. We all of us want to be high performers: "be like Mike," the Nike adage suggests so. Theory of performance is a challenge to public organizations but by improving our own performance, we empower ourselves to aid others learn and grow. As advocated by Harvard's Project Zero, "performance is closely related to learning-for-understanding" (Wiske, 1998). Hence building performance abilities is rightfully a central objective in this study. If people can learn as well as grow, then they are empowered to bring up results that makes difference. Learning and working together in the ways that can make world better has been and will always be a major goal of higher education throughout the ages.

### Conceptual Framework

The conceptual framework contains independent and dependent variables. The independent variables are efficient, customer satisfaction and cost, while the dependent variable is organisational performance as shown in figure 2.1 below.

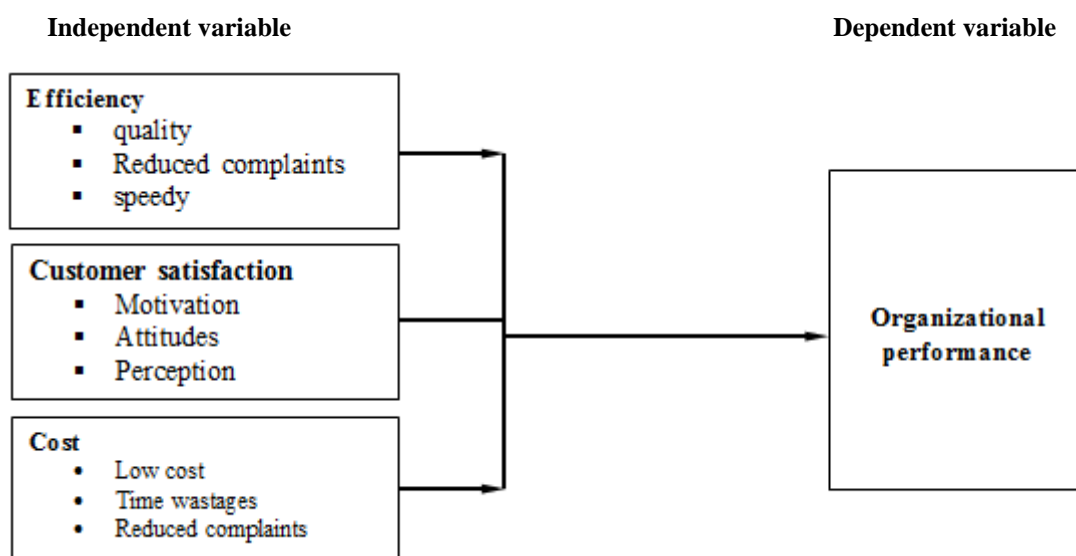


Figure 2.1: Conceptual framework



## Review of Variables

### Effect of Efficiency on organizational performance

Currently, innovation is increasingly becoming complex and interactive as well as fast and hence requires the access to internal and external knowledge so as to come up with new or significantly improved goods and service in order to enhance organization performance (Prause, 2015). It is well found that Innovation is recognized to be one of the keys to an enterprise success. Creating Knowledge and disseminating it, and innovation are keys to promoting competitiveness (Aleksejeva, 2016; Tvaronavičienė et al. 2016; Čirjevskis, 2016). Higher-quality and lower-cost of information is the key to unlocking more sources of finance for SMEs (Belás et al., 2016). Effectiveness and efficiency are central terms that are used in evaluating and measuring firm's performance and inter-organizational arrangements which include strategic alliances, sourcing, joint ventures as well as agreement on outsourcing (Mouzas, 2006). As per Pinprayong and Siengthai (2012), the efficiency in business reveals the good performance of input to output ratios and efficiency in organization reflects the improvement of processes outside the firm, they too concluded that performance of an organizational is influenced by efficiency and effectiveness. While business increases in size as well as scope, cost of agency or coordination costs increase since owners should spend more effort in managing and supervising workers. The Management of IS in an association reduces cost of obtaining as well as analyzing information, allows organizations to reduce; the number of middle level managers, agency costs, clerical staff as it increases revenues (Laudon, 2003).

### Effect of Customer satisfaction on organizational performance

Due to globalization, the economy of the world is increasing pressure on business competitiveness as well as sustainability. Organizations should keep on reinvent its business procedures, processes; its policies and market niche, being the only way of remaining relevant and sustainable in the current global market (Anand&Selvaraj, 2013). To be sustainable, firms should be profitable and gain sizeable control of market regarding products and services they offer on the given market. Threats of the new entrants mostly with multinationals are continuously compelling organizations venture into strategic reinventions being the way to deal with global pressure so as to give products and services at the globally competitive market standards (Arbore &Busacca, 2009). Most firms points to customer satisfaction as a means of developing as well as distinguishing their services from their contestants as well as tool used for developing utmost competitive advantage (Narteh&Kuada, 2014).Same applies to other firms which uses customer satisfaction to find out if their products and services are equally competitive enough at the market, whether they are able to surpass customer prospects, as well as to find out whether they are within average or just under the average (Osarenkhoe&Komunda, 2013). As per Anand and Selvaraj (2013), as a firm surpasses customer expectations, it is the more it gains total customer loyalty, which as a result translates to increased market share hence increased profitability as well as command of respect within its sector. In banking industry, customer satisfaction is supreme because one might not have another opportunity just to redo the service he or she offered. If the experience by a customer is flagged disappointing (Munari, Ielasi, &Bajetta, 2013). Narteh and Kuada, (2014) in their study contend that banks can only give satisfactory customer service if processes, standards and policies for quality of service exists in the organization since quality of service plays a primary role in attaining customer satisfaction.

Munari *et al.*, (2013) in his study contends that industry esteems customer satisfaction as the most acute criteria for evaluating the relationship of the firm with its market. Hoq and Amin (2010) describes customer satisfaction as overall evaluation basing on business actions which is carried out by firms in relation to customer prospects accumulated for a period of times which results from client's consistent in using products or services of an organization. Narteh and Kuada, (2014) also explain customer satisfaction as the utility which is derived from using services basing on initial expectation of a given service. From such definition, customer satisfaction can be regarded as a significant driver of firms' performance strategies. Terpstra, Kuijlen and Sijtsma (2014) claims that in banking sector, customer satisfaction is the valence state of mind which is evoked by customer's experiences as a result of engaging as well as utilizing banking services. In this in mind, in banking industry, customer satisfaction can proudly be classified into three categories. Utilization of products and services by a customer from a given bank via an ongoing process leads to buildup of experiences as well as encounters with the banks, leading to customer satisfaction. This is regarded to as first category of classification. Narteh and Kuada, (2014), according to them, the second customer satisfaction category is showed via feelings the customer has regarding the bank. This can be through observation as well as cognitive evaluation as to if a bank is performing or not. The third and last category of assessing satisfaction of a customer in banking industry assumes

that satisfaction and dissatisfaction are one-dimensional, ranging from very satisfied to very dissatisfied. According to Gordon, Greenley and Gordon. (2003), It is acknowledged that organization have a number of stakeholders which includes but not limited to, shareholders, customers, suppliers, employees and so on. In the field of marketing, customers are the most significant stakeholders for managing its long term values with customer satisfaction being a firm's major objective. Critical component to a successful project delivery, programme or activity is Stakeholder management. A stakeholder can be any group, individual, or an organization that can be affected, or effect or perceive to be affected by a programme itself. (Edwards, Janice (2017).

### **Effect of Cost reduction on organizational performance**

Cost reduction is an output element in regard to project performance. Rana(2013) concludes that reduced scrap or waste and shorter lead times are examples how costs are reduced when technology is used effectively in the factories. According to (Thomas & Gilbert, 2014), among the many costs in a manufacturing sector, obsolescence costs, initial costs of production, stocking costs and transport costs are included. Such costs affect project performance. Apart from alignment of strategy and continuous improvement in processes, corporate firms also focus on reduction of costs (Kushwaha, 2012). Issues of cost are critical in the modern business operations as they can positively or negatively impact on project performance. According to Uzochukwue, al (2016) the increasing customers` demand for high quality products and more flexibility all at lower costs have generated a new trend in the industries. This can be mitigated by effective adoption of various production processes. This shows that cost reduction processes are so key and they can majorly be enhanced by the employment of technology in the factory production operations.

Computerization of tea collection process at the buying centers was implemented to enhance accountability and accuracy of records as a way of reducing operational costs, and enhancing information sharing among all stakeholders (Kagira, Kimani and Kagwithi, 2012). According to Ngiyen(2013), a firm has to face with the most challenge of the best use of available resources to ensure that the full range of assets including employees, technology, capital, information, intangible asset and market position can be accessed to carry out innovation activities and technology transfer. To save tea farmers from the rising costs of operations, factories took a bold step in adopting innovations in its business. The adopted innovations were process innovation and organizational innovation (KTDA, 2014). Process innovation entails the implementation of a new or significantly improved delivery or production method. It includes significant changes in equipment, techniques and/or software (OECD Oslo, 2005). The processes innovations undertaken by factories were automated tea processing by adopting Continuous Fermentation Unit and converting the steam boilers from furnace fuels to firewood fuel with the aim of reducing the operational costs (KTDA, 2014), the newly deployed tea leaf collection trucks have a higher rate of motor vehicle turn around resulting in collection of bigger volumes of green tea leaves due to their efficiency and minimal breakdowns. Modern machinery which can handle big volumes of input can be cost effective. An example in the tea processing activity is an electronic weigh feeder which can weigh up to 6000Kgs of green leaf per hour. Another in the tea processing factories is installation of Cutting, Tearing and Curling (CTC) machines 42" Vikram Jumbo which can handle a capacity of 3000Kg. per hour. The efficiency of this machinery has led into improved rate of the quantity of the tea processed per cycle while reducing the time taken to process that tea. The automated tea processing systems are intelligent machines that transformed the way tea was manufactured by eliminating human intervention in the process of fermentation (KTDA, 2014). This was done with a view to reducing the labour cost as less people were required to operate the plant as compared to the old system. The system was also put in place to improve quality as the system does not depend on human intervention for the various stages of processing of tea (KTDA, 2014). Due to the rising costs of furnace fuels, factories opted to change from furnace fuel steam boilers to firewood steam boilers (Kagira, Kimani and Kagwithi, 2012). In mechanical processes, an operator loads a piece of equipment which can work without further intervention. Mechanized systems have the disadvantages of high capital cost and inflexibility. They still need operators to do some of the aspects of the work operations and deal with problems. Unfortunately, humans slow down a process, add variability to the quality and increase unit costs and this is the major reason why automated processes have been adopted. Automation overcomes the problems of a mechanized process because automated equipment performs series of operations without any operator involvement. Factories have adopted automation by introduction of continuous chemical withering (CCW), continuous physical withering (CPW) machines and continuous fermenting units (CFU) which has drastically improved speed, machine availability and flexibility. These are computerized "intelligent machines" that literary transformed the way tea was manufactured by eliminating human intervention in the process of fermentation. The result was greater consistency in the quality of made tea, more efficient production and a lowering of labor costs

since a single CFU replaced almost 40 workers (Kimathi & Muriuki, 2012). Rana (2013) concluded that features such as bar codes assist in improving quality control. Electronic controls and digital displays increase speed and precision during the manufacturing process. IT extensively reduces the cost of product design, supply chain management and the manufacturing processes.

### Organizational Performance

It is agreed by authors that when conceptualizing performance then one has to distinguish between an action (behavioural) aspect and an effect aspect of performance (Campbell, 1990). Aspect of behavioural is what an individual does as per work situation. This includes behaviours like assembly of car engine parts, teaching basic reading skills to elementary school children, selling personal computers or even performing heart surgery. All behaviour cannot be subsumed under the performance concept, but its only behaviour that is relevant to the goals of an organizational. It can be stated that performance is not defined by an action itself but by judgemental as well as evaluative processes (cf. Ilgen & Schneider, 1991; Motowidlo, Borman, & Schmit, 1997). It is only actions which can be scaled and measured that are considered to constitute performance (Campbell et al., 1993). According to studies which was conducted by Richard, Devinney, Yip, & Garry, (2009), performance of an organizational involves three particular areas of the organization outcomes: financial performance (return on investment, profits as return on assets); market performance (market share, sales and so on); shareholders return (economic value added, total shareholder return and so on.). High work performance practices is a bundle of human resource (HR) practices that enhances organizational performance as they increase employees' motivation, ability and chance to contribute (AMO) (Rabl et al. 2014). Implementing a specified set of work practices that is of high performance working system, it's beneficial to all kinds of organizations in terms of higher performance (Boxall and Purcell, 2003). On the same lines, organization environment is fostered by high performance work system whereby workers feel contended at the same time willing to put additional efforts to realize organizational goals so as to boost the performance of an organization (Kellner et al. 2016). This is to say high performance working system improves the worth of an individuality and inimitability of employees' familiarity and skill which as a results creates competitive benefits as well as better performance (Zhang et al., 2014) which is in particular financial performance (Huselid, 1995), performance of employees (Xiaomei et al. 2013) and operational performance (Kintana et al. 2006). Moriones, Billon and Lopez (2013) studied the apparent performance effects of ICT in manufacturing SMEs in Spain. The investigation found out that ICT had an important influence on improvement of internal and external communications. The study also found out that the managers' awareness of positive influence of ICT in an organization was related to the acceptance of the new working practices following the adoption of ICT. It was then concluded by researcher that firms which has a larger coordination requirement would benefit most from ICT acceptance as would be the case of firms dealing with more regular and complex information flows typically connected with a large number and variety of agents involved. The investigation revealed that, for any organizations make full benefits of ICT investments then firms should make effort to accept organizational practices which can increase teamwork as well as worker participation in decision making. According to Jose (2015) internet will significantly change manufacturing in the world and be able to control two-thirds of the global gross domestic product. As an aspect of technology, it affects the way business is carried out and hence project performance of organizations. An intranet is a set of networks, using the Internet Protocol and IP-based tools such as web browsers and file transfer applications that are under the control of a single administrative entity. That administrative entity closes the intranet to all but specific, authorized users. Most commonly, an intranet is the internal network of an organization. A large intranet will typically have at least one web server to provide users with organizational information. All this allows for timeliness due to the quickness in internet.

According to Freeform Dynamics (2017), one of the ways of driving healthier productivity as well as efficiency is by automating key operations activities. Apart from speeding up activities and instantly freeing up the time of Information Technology operations staff, it has added advantage of helping to reduce mistakes occasioned by human error. This will mean fewer outages and less remedial work as a result, with an equivalent decrease in the time and disruption related with this. Automation, as per this study, is of major effect to ensure efficiency and effectiveness and the research concurs. The idea is automation of many operation aspects as possible in completely integrated manner. Thus automation can radically lessen the time you require to spend on repetitive administration tasks.

According to Thompson *et al.* (2005), the instant communication Features of the internet combined with all the real time data sharing and information availability have further effect of breaking down corporate bureaucracies and reducing overhead costs. This means management process like order processing, invoicing, customer accounting, and other kind of

transaction costs can be handled fast, accurately, and with less paper work and fewer personnel. The time savings and transaction cost reductions associated with doing business online can be quite significant across both company and industry as it uses internet for purposes of efficiency and effectiveness. An extranet is a network that is limited in scope to a single organization or entity and also has limited connections to the networks of one or more other usually, but not necessarily, trusted organizations or entities—a company's customers may be given access to some part of its intranet—while at the same time the customers may not be considered trusted from a security standpoint.

In business operations, an intranet may be preferred by the owners of the company because information is more readily available with understood user-protocols in place and it is entirely shared by stakeholders within it, that is majorly the employees (Rimmington, Dickens, & Pasquire, 2015). The Management Information System (MIS) provides information that managers have specified in advance as adequately meeting their information needs (Byars & Rue, 2003). It is important to observe that communication is made easier by the use of modern technology in several ways. A notable technology in the tea factory is the use of electronic weighing systems where tea is weighed to accurate measures minimizing the leaf loss for the customers and Computerization of operations in which firms has significantly taken manual work space hence reducing labor related costs

Competition in the world has caused various consolidations in the industry and hence resulted in pressure on resources and at the same time need to deliver higher throughput at lower costs (PlantWeb, 2003). Firms have to focus on the volumes of production in line with the resources at their disposal. In such circumstances, the element of changes has to be managed effectively.

Rapidly changing environment makes flexibility in operations as one of the major priorities to beat stiff competition both in the manufacturing and service sectors (Arand, 2003). Increasing the part processing time at a workstation increases the manufacturing cycle time at that workstation. In a system with process drift, this increase may, in turn, reduce the throughput and the total manufacturing cycle time. This can occur because the manufacturing cycle time increase consequently delays the detection of process drift at a preceding workstation (its detection time increases). As a result, the average yield decreases, the cumulative yield decreases, and the batch size leaving the next inspection station is smaller. The reduced batch size decreases the job processing times, utilization, and manufacturing cycle time at the workstations following the inspection station. (Chincholkar, Burroughs, & Hermann, 2004). Aspects of throughput assists in monitoring parameters such as arrival rates of the output and also the processing time or cycle that is involved. Thus, it uses some kind of sensitivity analysis in the processes in order to optimize production in the factory. Basically, those steps that cause delays can be focused on for improvement purposes. It also brings out light on how the available resources may be engaged maximally.

### **Critiques of existing literature**

“Moriones, Billon and Lopez (2013) studied the perceived performance of ICT in manufacturing SMEs in Spain. Their investigation established that ICT had a significant influence on the enhancement of communication within and without the organization. Also the investigation established that managers’ discernment of positive impact of ICT in the organization was associated to the adoption of new working practices as a result of the acceptance of ICT. These Researchers determined that firms with greater coordination requirement would then benefit the more from ICT acceptance as it would be the case of firms handling more frequent and complex information flows typically related with huge number variety of agents involved. These investigation suggested that, for any firm to take full advantage of ICT investments, then they should make effort to accept organizational practices aimed at adding teamwork and participation of workers in decision making. Rapid and fast growth of the Internet, extranets, intranets and other interconnected global networks in the 1990s dramatically changed the abilities of IS in business. This findings agrees with (Iravo, Ongori and Munene 2013) who established one significant questions which lingers in business sector as to why some hotels perform outstandingly better while others fail which influenced a study to be done on the drivers of organizational performance, citing IS support as the major driver for service performance. A study done by (Oh and Parks, 1997; Nadiri and Hussain, 2005) found out that IS concepts are recognized as playing very important role for company’s achievement in competitive market and firm performance in general. This study also agrees with (Todd, 2013) who documents that information system must be able to support the latest smart grid innovations, net metering, distributed generation, time-of-use tariffs and the resulting complex billing calculations as well as give support for the most popular payment methods in service industry. It is clear from his literature by (Todd, 2013) that systems abilities must make elaborate and calculated moves to maximize the return on investments from hoteliers and their clients.

According to Todd, (2013), firms attain business objectives and overcome constraints in growth as well as mitigate risk with minimal disruption of usual business operations by adopting a good approach to customer information systems transformation and also by focusing on well-defined and well understood objectives, ensuring executive involvement and effective communication. According to this finding, it's clear from what (Bonnie, 2000). He concluded that "Electronic delivery media extend beyond the established external information databases; crucial to their success are systems of access to internal information and to internally developed information systems." Information Systems Success explains the relationship between effects of management information system on effectiveness and quality of IS. According to this model, effectiveness affects both the use of management information system, and how satisfied the intended users are with its use. A higher IS effectiveness would lead to improved user satisfaction, and this in turn translate into positive impact on individual productivity and eventually resulting in organizational productivity improvements (DeLone & McLean, 2003). A study by Harindranath, Dyerson, and Barnes (2008), suggested that institutions of higher learning organizations are often driven by pressure of cost and efficiency, factors that can be addressed by having effective management information system within the organizations. While it is true that most institutions are embracing the use of IS, Francis and Susanna (2001) argues that the traditional challenges like: automation of manual processes, streamlining of such processes, reduction in the large number of workers among others still remain largely evident just as is the case with other institutions in sub-Saharan Africa. According to Duncombe and Molla (2009), this raises question on the quality of information system used by these organization.

### Research gaps

In business operations, an intranet may be preferred by the owners of the company because information is more readily available with understood user-protocols in place and it is entirely shared by stakeholders within it, that is majorly the employees. (Rimington, Dickens, & Pasquire, 2015). The Management Information System (MIS) provides information that managers have specified in advance as adequately meeting their information needs (Byars & Rue, 2003). It is important to observe that communication is made easier by the use of modern technology in several ways. A notable technology in the tea factory is the use of electronic weighing systems where tea is weighed to accurate measures minimizing the leaf loss for the customers and Computerization of operations in which firms has significantly taken manual work space hence reducing labour related cost.

### Summary

This section dwelt on issues related to how management information systems determines operations in Kapsara tea factory in Trans Nzoia County and as results affecting its performance. MIS gives information that managers have specified in advance as adequately meeting their information needs (Byars & Rue, 2003). It is important to observe that communication is made easier by the use of modern technology in several ways. A notable technology in the tea factory is the use of electronic weighing systems where tea is weighed to accurate measures minimizing the leaf loss for the customers and Computerization of operations in which firms has significantly taken manual work space hence reducing labour related costs.

## 3. RESEARCH METHODOLOGY

### Introduction

This chapter explains the research methodology under the following subtopics; the research design, the target population, sample size, data collection instrument and method, pilot study, measurement of variables and data analysis and presentation.

### Research Design

The study will apply a descriptive research design to carry out the investigation. A descriptive research design aimed at describing the distribution of a phenomenon in a population and thereby establishing the facts. The descriptive design was chosen because it provides great depth of responses resulting in better and elaborates understanding of the phenomenon under investigation. Best et al. (1996) supports this by saying that a descriptive research is designed to obtain a status of an issue and whenever possible to draw valid general conclusions from the facts discussed. The design was therefore well-fitted for case study researches which entail examination of phenomenon like in this study.

### Target population

Zikmund (2003) defines target population as the specific group relevant to a particular study. Churchill et al, (2000) also defines it as the "totality of cases that conform to certain specifications which defines the elements that are included or excluded in the target group". The study will target the key informants like the Human Resource Manager, line managers and supervisors who are perceived to have an understanding of the operations of the industry and the employees directly involved in operation of the organisation. The target population will be as in the table below:

**Table 3.1: Target population**

Category	Target population
Top management	3
Line managers	5
Supervisors	7
Lower level employees	50
<b>Total</b>	<b>65</b>

### Sample and Sampling Techniques

Kothari (2004) defines sample size as the number of items to be selected from the universe to constitute a sample. A sample of study is necessary because according to Welmen (2001) the size of the population usually makes it impractical and uneconomical to involve all the members of the population in research project. Therefore, the study will adopt purposive sampling that is working with entire population since the target population is small. Thus, all top management and the department of ICT employees will be respondents in this study.

### Data Collection instrument and Technique

The data collection instrument was mainly questionnaire. Primary data collection was carried out using a self-designed questionnaires. The instrument will comprise four sections, section one covered demographic information (education, Gender, age, job name and period of working at company). Section two contained (7) items measuring level of availability of computers equipment and software in the company and section three contains (5) items measuring the availability of computers network inside the company, the fourth and last sections contained (5) items measuring the support and importance of MIS in the company and the level of training of employee to use the MIS systems, the fifth sections contains(14) items measuring the performance of employee and uses of MIS in company.

Secondary data will be collected based on the finding of published papers, articles, books, previous studies, and the internet."

### Pilot Study

According to Burns and Grove (2003), a pilot study is often defined as a smaller version of a proposed study and is conducted to refine the methodology. A pilot study allows the researcher to test the prospective study and is done on a smaller number of people having characteristics similar to those of the target respondents. It helps to identify possible problems in the proposed study and allows the researcher to revise the methods and instruments before the actual study, in other words to improve the success and effectiveness of the study (De Vos et al 2005). A pilot testing for the questionnaire was undertaken at Mudete tea factory among 20 respondents.

### Validity

Validity is the extent to which the instrument measures what it purports to measure according to the researcher's subjective assessment (Nachiamis: 1990). Best and Kahn (1998) suggest that the validity of the instrument is asking the right question framed from the least ambiguous way. This information will be used to determine reliability of the questionnaires; validity will be determined by expert opinion which will include university supervisors.

### Reliability

Reliability' coefficient of 0.70 and above is considered acceptable (Fraenkel&Wallen, 2000). This figure is usually considered respectable and desirable for consistency levels (Hennerson et al., 1987). The Cronbach's coefficient alpha will be computed in determining the internal consistency of the instruments.

### Data Analysis and Presentation

Orodho (2004) observes that data analysis is the lifeline of a research and that the methods of analysis are the backbone and conduct wire. Thus, data which will be collected from the field will be coded and cleaned to remove outliers or missing valuables and categorized manually according to the questionnaire items using frequency distribution tables and percentages. Simple descriptive statistics will be used as they have an advantage over more complex statistics since they could easily be understood especially when making results known by a variety of readers. The coded data will then be transferred to the computer sheet and processed using the Statistical Package for Social Sciences (SPSS) version 20.0. Martin and Acuna (2002) observes that the SPSS is able to handle large amounts of data, it is time saving and also quite efficient hence, its application. Frequency tables, bar graphs and pie charts will be used to analyze the quantitative data. Multiple regression analysis will be done to test the effect of one variable to the other. The regression model is as follows;

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$$

Where: Y = organizational performance

$\beta_0$  = Constant

$\beta_1 \dots \beta_3$  = the slope representing degree of change in independent variable by one-unit variable.

$X_1$  = efficiency

$X_2$  = customer satisfaction

$X_3$  = cost

$\varepsilon$  = term error

## 4. RESEARCH FINDINGS AND DISCUSSIONS

### Introduction

The chapter presents results of data analysis conducted from the respondents received. The study overall objective was to find out and analyse the effect of MIS on the performance of Kapsara Tea Company. The study was guided by the following specific objectives: to assess the effect of efficiency on performance of Kapsara Tea Company in Trans Nzoia County, and lastly to evaluate the effect of customers' satisfaction on performance of Kapsara Tea Company in Trans Nzoia County and to determine the effect of cost on organizational performance in Kapsara Tea Company in Trans Nzoia County. Data was first organized, reduced, coded, tabulated and further analysed using various statistical tools for finding answers to the predetermined research questions. Statistical package for social sciences (SPSS 20) was used. An argument of the findings has also been done after the analysis.

### Response Rate

A purposive census was used since the population was heterogeneous and where each cadre of management composed the population since the population was not large, and there were well organized structures where the respondents can be found easily, the researcher conducted census. The target population totalling to 65 then all the 65 questionnaires was administered where 63 questionnaires were returned. Therefore the response rate is computed as 63 respondents out of 65 multiplied by 100 percent which gave rise a response rate of 96.9 percent. The high response rate (96.9%) could be attributed to the researcher personally administering the data collection tools and making a close follow up with the respondents. According to Geus (2004), a self-administered questionnaire attract low non-response rate and influence gathering of accurate and reliable information on the study problem.

### Pilot Study Results

Pilot study was conducted to pre-test the tool for data collection. Ten questionnaires were administered in Kapsara tea factory. The questionnaire tool returned a highly acceptable scores since all coefficient are above 0.75. An internal consistency technique using Cronbach alpha was then applied to measure the reliability of all the questionnaires issued to different groups of pilot respondents. According to Zinbarg (2005), "Cronbach Alpha is a coefficient of reliability that gives an unbiased estimate of data generalizability. An alpha coefficient higher than 0.75 indicates that the gathered data

have a relatively high internal consistency and could be generalized to reflect opinions of all respondents in the target population” (Joppe 2000). Data reliability played a significant role towards generality of the gathered data to reflect the true physiognomies of the study problem. The result are presented in the following table 4.1.Below.

**Table 4.2: Reliability Analysis**

Reliability statistics	Cronbach's Alpha value
Efficiency	0.73
Customer satisfaction	0.76
Cost	0.81

### Qualitative Results

Qualitative data helped to include measures that could not be measured with discrete data, this helps to describe respondents attitudes and emotions.

#### Age of respondents.

The respondents age in years was sought by the second item as summarized in the table 4.2. below. The majority from the table between ages 25 years to 30 years forming 50.3 percent. 30.8 percent of the respondents were between ages 31-35 years. 10.2 percent of respondents were between the ages of 36-40 years old while 5.7 percent of the respondents were of the age 41-45 years and 2.0 percent were from age 46-50 years old. From the results it can be deduced that majority of the respondents were between age 25-30years of age.

**Table 4.3: Age of the respondent**

Age in years	Frequency in percent	Cumulative percentage
25-30	50.3	50.3
31-35	30.8	81.1
36-40	10.2	91.3
41-45	5.7	97
46-50	3.0	100
<b>Total</b>	<b>100</b>	

### Gender of respondents

On the question of the way respondents were picked and distributed in terms of gender or sex, the table 4.2 below illustrates that 62.5 percent of the respondents were males while 37.5 percent of the respondents were female. The distribution of the respondents by gender was slightly skewed in favour of male members of the respondents since they form larger group of employees at the company under investigation.

**Table 4.4: Gender of the respondent**

Gender	Percent	Cumulative percent
Male	62.5	62.5
Female	37.5	<b>100</b>
<b>Total</b>	<b>100</b>	

### Educational level

Results on education level are shown as follows from table 4.4 below. 54.6 percent of the respondents were degree holders, 30.1 were diploma holders, and 7.7 percent of the respondents had masters while another 7.7 percent had certificate level of education. The results indicated that majority of the respondents were holders degree level of education.



Table 4.5: Education level of respondent

Level of education	Level of education in percent	Cumulative in percent
Certificate	7.7	7.7
Diploma	30.1	37.8
Degree	54.6	92.4
Masters	7.6	100
<b>Total</b>	<b>100</b>	

### Job Description

Results on table 4.5 below on job description of the respondents indicated that 61.5 percent of the respondents were line managers, 20.7 were supervisors and only 17.8 percent of the respondents were managers indicating that majority of respondents were line managers.

Table 4.6: Job description

job description	Job description in percent	Cumulative percent
line manages	61.5	61.5
Supervisors	20.7	82.2
Managers	17.8	100
<b>Total</b>	<b>100</b>	

### Presentation of the Findings

#### Effect of Efficiency on organizational performance in Kapsara Tea Company in Trans Nzoia County

First objective of the study aimed at assessing the effect of efficiency on organizational performance in Kapsara Tea Company in Trans Nzoia County. The objective was assessed by use of statements in the questionnaire in which the respondents were required to submit their position basing on a Likert scale which was provided. The results according to the respondent's views are shown in table 4:6 a key of likert scale as strongly agree, agree, neutral, disagree, strongly disagree.

Table 4.7: Effect of efficiency on organizational performance in Kapsara Tea Company in Trans Nzoia County

Statement	SA	A	N	D	SD	Total
presence of improved efficiency and timeliness in reporting and analyzing process of key record data from the organization	36.7	43.3	17.6	2.4	0	100
technology is increasingly complex, fast, interactive, and requires the access to external and internal knowledge in order to develop new or significantly improved goods and service	34.7	42.4	4.7	12.4	5.8	100
higher-quality, lower-cost information is a key to unlocking more sources of finance for SMEs	32.4	43.7	5.7	8.2	10	100
many companies continue to increase their investment in implementing various types of information systems, for more efficient ways of work	13.4	45.1	7.2	24.6	9.7	100
an organisation that satisfies the customer that one that thrives in business and reflects the improvement of internal processes of the organization	32.7	40.4	9.7	11.4	5.8	100
e-commerce takes place directly between a business, its partners or its customers through a combination of computing and communication technologies taking into account sales, marketing, communications, service and workflow	29.2	28.9	14.9	17.0	10.0	100
innovation is a perfect space, because its outputs affect the sustainability of the company and from the perspective of the customer as well as the owners of the company	25.4	59.6	1.8	3.2	10.0	100

The findings showed that majority 43.3 percent of the respondents agreed while 36.7 percent strongly agreed that presence of improved efficiency and timeliness in reporting and analyzing process of key record data from the organization. 17.6 percent were neutral and 2.4percent disagreed that presence of improved efficiency and timeliness in reporting and analyzing process of key record data from the organization. This means that majority, 80percent of the respondents were for the statement of presence of improved efficiency and timeliness in reporting and analyzing process of key record data from the organization. The findings obtained data on whether technology is increasingly first, complex, interactive, and needs the access to external and internal knowledge so as to develop new or significantly improved goods and services. The results showed that majority 42.4percent of respondents agreed while 34.7percent strongly agreed that technology is increasingly fast, complex, interactive, and needs the access to external and internal knowledge so as to develop new or significantly improved goods and services, totalling 77.1percent. But 4.7percent were neutral, 12.4percent disagreed while 5.8percent strongly disagreed. This implies that majority of the respondents agreed that technology is increasingly fast, complex, interactive, and needs the access to external and internal knowledge so as to develop new or significantly improved goods and services.

The results of the study also showed that majority 42.4percent of the respondents agreed while 34.7percent strongly agreed that higher-quality and lower-cost of information is a key to unlocking more sources of finance for SMEs. But 4.7percent were neutral, 12.4percent disagreed and 5.8 percent strongly disagreed. This shows that majority 77.1percentagreed that higher-quality, lower-cost information is a key to unlocking more sources of finance for SMEs. Furthermore, the findings showed that majority 13.4percent of respondents agreed while 45.1percent strongly agreed that many companies continue to increase their investment in implementing various types of information systems, for more efficient ways of work. While 7.2percent were neutral, 24.6percent disagreed and 9.7percent strongly disagreed. This shows that majority 58.5 percent agreed that many companies continue to increase their investment in implementing various types of information systems, for more efficient ways of work.

The findings obtained data on whether an organisation that satisfies the customer that one that thrives in business and reflects the improvement of internal processes of the organization. The results showed that majority 40.4percent of respondents agreed while 32.7percent strongly agreed that an organisation that satisfies the customer that one that thrives in business and reflects the improvement of internal processes of the organization, totalling 77.1percent. But 9.7percent were neutral, 11.4percent disagreed while 5.8percent strongly disagreed. This implies that majority of the respondents agreed that an organisation that satisfies the customer that one that thrives in business and reflects the improvement of internal processes of the organization. The findings further showed majority 28.9 percent of respondents agreed while 29.2percent strongly agreed that e-commerce takes place directly between a business, its partners or its customers through a combination of computing and communication technologies taking into account sales, marketing, communications, service and workflow. While 14.9 percent were neutral, 17.0percent disagreed and 10.0 percent strongly disagreed. This shows that majority 58.5percent agreed that e-commerce takes place directly between a business, its partners or its customers through a combination of computing and communication technologies taking into account sales, marketing, communications, service and workflow. The findings further showed majority 59.6percent of respondents agreed while 25.4 percent strongly agreed that innovation is a perfect space, because its outputs affect the sustainability of the company and from the perspective of the customer as well as the owners of the company. While 1.8percent were neutral, 3.2percent disagreed and 10.0percent strongly disagreed. This shows that majority 58.5percent agreed that innovation is a perfect space, because its outputs affect the sustainability of the company and from the perspective of the customer as well as the owners of the company.

### **Inferential Statistics**

The researcher did inferential statistics on the quantitative data. The statistics done included correlation, regression and ANOVA. The results are presented in the section below.

### **Effect of efficiency on organizational performance in Kapsara Tea Company in Trans Nzoia County**

The study analysed data on the effect of efficiency to obtain the Pearson correlation and presented the results in Table 4:7.

**Table 4.7: Pearson Correlation of effect of efficiency on organizational performance in Kapsara tea company in Trans-Nzoia county**

Variable	Test	Organizational performance
Effect of efficiency	Pearson Correlation	.673**
	Sig. (2-tailed)	.000
	N	63

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

The study shows that employee productivity has positive relationship on organizational performance. The r value is 0.673 which is relative strong at 2 tailed significance of 0.000 which is below 0.01 significant level.

### Regression

**Table 4.8: Coefficients Determination of effect of efficiency on organizational performance in Kapsara Tea Company in Trans Nzoia County.**

Model 1	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	3.902	.228		20.425	.000
Efficiency	.309	.374	.315	.805	.352

a. Dependent Variable: Organizational Performance

Table 4:8 provides the information needed to organizational performance from effect of efficiency. Both the constant and efficiency contribute significantly to the model. The regression equation is presented as follows; organizational performance = 3.902 +0.309 (efficiency).

### Model Summary

The model summary of the relationship of efficiency against organizational performance presented in Table 4:9.

**Table 4.9: Model summary of efficiency on organizational performance**

Model 1	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.367 <sup>a</sup>	.133	.081	.614

a. Predictors: (Constant), efficiency

Table 4:9 provides the R and R<sup>2</sup> value. The R value is 0.367, which represents the simple correlation. It indicates an average degree of correlation. The R<sup>2</sup> value indicates how much of the dependent variable, "organizational performance", can be explained by the independent variable, "efficiency". In this case, 13.3 percent can be explained, which is relatively significant.

## 5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

### Introduction

This chapter includes summary of findings of the study, then draws conclusions and makes recommendations. The chapter concludes with areas for further Research.

### Summary of Findings

#### Effect of Efficiency on organizational performance of Kapsara Tea Company in Trans Nzoia County

The first objective of the study aimed at assessing the effect of efficiency on organizational performance of Kapsara Tea Company in Trans Nzoia County. The objective was assessed by use of statements in the questionnaire in which the respondents were required to state their position on the basis of a Likert scale that was provided. The results according to the respondent's views revealed presence of improved efficiency and timeliness in reporting and analyzing process of key record data from the organization and that technology is increasingly complex, fast, interactive, and requires the access to external and internal knowledge in order to develop new or significantly improved good and service. The results

of the study also revealed that higher-quality, lower-cost information is a key to unlocking more sources of finance for SMEs and that many companies continue to increase their investment in implementing various types of information systems, for more efficient ways of work. The findings also indicated that an organisation that satisfies the customer that is the one that thrives in business and reflects the improvement of internal processes of the organization. The findings further showed that majority 58.5percent agreed that e-commerce takes place directly between a business, its partners or its customers through a combination of computing and communication technologies taking into account sales, marketing, communications, service and workflow and that innovation is a perfect space, because its outputs affect the sustainability of the company and from the perspective of the customer as well as the owners of the company.

### Conclusion

The null hypothesis  $H_{01}$ : efficiency does not have statistically significant influence on organizational performance in Kapsara tea company in Trans Nzoia county: is rejected therefore, efficiency has a significant influence on organizational performance in Kapsara tea company in Trans Nzoia county.

### Recommendations

Based on the findings, the study recommends that the management should bring out the meaning and importance of management information system to enhance organizational performance in factories and other sector. The management should train their employees to bring out the required level of competencies for high performance and to enable them to be conversant with system during the rapid changes with technology. The employees should be made to understand what is expected of them in an ever changing environment to try to be more efficient in their performance.

### Areas for further Research

The study focused on analysing the effect of management information system on the performance of Kapsara Tea Company. Therefore, the study recommends further research into the other areas for example a study in effect of customer's satisfaction on organizational performance in Kapsara Tea Company in Trans Nzoia County. It also recommends a further research on challenges being faced by companies that embrace technology.

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