

# ELECTRONIC DOCUMENT MANAGEMENT INFORMATION SYSTEM ON PERFORMANCE OF ORTHODOX TEA PROJECT IN KENYA TEA DEVELOPMENT AGENCY IN KENYA

<sup>1</sup>Martin Mwarangu, <sup>2</sup>Dr. Paul Sang

<sup>1,2</sup>Department of Management Science, School of Business, Kenyatta University, Kenya

---

**Abstract:** The study aimed at determining the effects electronic document management information system on performance of orthodox tea project in Kenya tea development agency in Kenya. The study focussed on orthodox tea project that was implemented by the KTDA head office in the three KTDA managed factories that were Kangaita, Mununga and Kimunye Tea factories. The study used descriptive research design to acquire detailed and in-depth analysis for the study. The target population comprised 430 respondents from management, designated staff and non-designated workers of KTDA head office and in the three KTDA managed tea factories. Sample size of 131 respondents was selected which represented 30% of the target population. The study adopted multistage sampling method. These involved subdividing the target population into head office and tea factories, then stratifying according to the position one holds in the organization. Simple random sampling was used to select the respondents from each stratum. Primary data was collected using questionnaire that had both closed and open ended questions. The data collected was analyzed using descriptive statistics. The study concluded electronic document management system (EDMS) and automated fleet management system (AFMS) had greatly improved the performance of orthodox tea project in KTDA. The study recommends that the organization should train its employees on its Management Information Systems as well facilitate them with the appropriate facilities and support. Organizations should ensure the MIS systems adopted are relevant to the organization need and there is effective internet connectivity to enhance sharing of information.

**Keywords:** Electronic Document Management Information System, Project Performance.

---

## 1. INTRODUCTION

For a while now, a good number of organizations have relied mainly on traditional methods in management of Information which drive their processes. According to Gattiker and Goodhue (2005), these systems have not only been unreliable but overly inefficient and ineffective. These organizations have therefore found it quite challenging to deal with demands of modern environments of doing business. Due to this reason, there has been a rapid shift in adoption of Information Management Systems (IMS) in running business.

Organizations have now become knowledge driven as opposed to a while back. Petter, Delone and Mclean (2013) commented IMS provides accurate and appropriate information at convenient time to support the processes of the business. IMS increases the responsiveness of the employees in the organization by facilitating instant flow of information among employees and between the departments. Fairbank, et al (2006) observed that the organisations both in manufacturing and in provision of services should adopt information management systems into their operations so as to

enhance competitiveness and consequently encourage the growth, success and visibility. Although various organisations have varying information needs, as they try to attain competitive advantage and continuously improve their products and processes they do adopt different information management systems. This study therefore examines how IMS affects performance of project in organizations. Specifically, investigate whether IMS affects performance of orthodox tea project in KTDA.

Electronic document management system was implemented to provide workflow system, for the organization to digitize the orthodox tea project's manual documents and archive them electronically in order to enhance their management, increase business processes efficiency and reduce cost. The major objective of the system roll out was to digitize and electronically archive manual documents, provide complete and auditable records for decision-making, Real-time notifications and tracking of documents and records, automate, streamline and optimize business processes, eliminates duplication and challenges of lost documentation, enhance security and management of enterprise information, provide complete document and user audit trails, hasten access to related business documents, shorten processes cycle times while enabling better decision making and provide unified view of actions and history related to an issue.

## 2. STATEMENT OF THE PROBLEM

Researchers throughout the world have long tried to establish and understand the relationships between information management systems (IMS) and organization project performance in production, distribution and service industry (Chi, Holsapple & Srinivasan, 2007). Research work done Brynjolfson and Hitts, (1998) indicated that significant progress has been made in establishing there exist a relationship between returns of IMS investment on organizations performance.

Although some studies conducted earlier have showed IMS has positive impact to organization productivity, theoretical frameworks are yet to be established or explain how MIS systems affects or influence the performance of various project(s) undertaken by the organizations (Sambamurthy, Bharadwaj & Grover, (2003)). According to Rai et al., (1996), previous studies have regularly made various simple assumptions about the direct relationship between IMS, competitive advantage and organization performance. Fairbank et al. (2006) suggested that the information management systems performance relationship is so complex that the answer may well hinge upon examinations of practices and procedures within certain companies.

Empirical evidence shows that very little effort has been put to establish and explain the influence of information management systems on the performance of orthodox tea project implemented by Kenya Tea Development Agency in Kenya. There is unjustifiable knowledge that IMS is cost centers in organizational project. For the last ten years, KTDA has invested heavily on information management systems such as Electronic weighing system to automate orthodox tea project leaf buying in factories, Electronic document management system to achieve a paperless office, automated fleet management system for vehicle tracking and fuel monitoring and others, SAP-ERP for integrating various business processes at the factories which have costed the shareholder millions of money. A host of benefits have been realized out of these projects but there has been raging debate over whether the overall organizational project efficiency has been achieved. This study therefore gauged the effect of information management systems on the performance of orthodox tea project in KTDA.

## 3. LITERATURE REVIEW

Hung et al, (2009), commented most private organizations and government institutions all over the world are now developing and adopting information technology to keep abreast with progression of information technology development as well as offer satisfactory products and services to their clients. Dashmir, I. et al. (2013), suggested that, government agencies are adopting and implementing IT with aim of delivering better services to the citizen and businesses and customers; as well as to support the modernization of their institution and businesses respectively. Electronic Document Management Systems (EDMS) is being adopted by the organizations to enable them improve in convenience, efficiency and provide quality services to the citizen, customers and any other stakeholder.

According to Chi, L., et al. (2007), the needs of citizens, customers and the originations are dynamic and they keep on changing with change in various micro and macro environmental factors. Due to this, it is paramount important for the organization(s) to keep its records in a manner that they are safe and easy to retrieve. They further argued IT could provide a perfect solution on managing organizations documents. Brown, J., et al. (2006) suggested documents should be stored as asset and memory of the organization. They further added well-kept documents are a clear signal that the

organization understand how the business is done, its operations, its customers, competitors as well as the environment in which it is operating in. Information/document management is the primary mechanism of conducting business and it is central to its functioning.

Electronic Document Management System facilitates to advancement the management of information, thereby improving the levels of support and productivity for managers, speeds up communications, increases the productivity of business processes, and improving the flow of information. Electronic Document Management System is a virtual constituent in creating a virtual working environment and transforming capabilities of an organisation and its workforce (Fairbank, et al. 2006). Benjamin, R. et al. (1996), noted that the organizations which had adopted EDMS are able to monitor its activities, reduces a lot of cost associated to paperwork and information is available on time. Hence this improves efficiency in the organization.

#### 4. RESEARCH METHODOLOGY

The study adopted descriptive research design. The target population comprised 430 employees of KTDA Headquarters and three KTDA managed tea factories in Kirinyaga County. 26 were members of management, 149 were designated staff and 255 non-designated staff of KTDA head quarters and managed tea factories in Kirinyaga County. 161 members were from KTDA head quarters, 76 from Kangaita tea factory, 92 and 101 from Kimunye and Mununga tea factories respectively. Multistage sampling method, stratified and simple random sampling methods was adopted. The sample of 131 respondents was selected. These represented 30% of the target population. The primary data was collected using a questionnaire. Descriptive statistics were used to analyze quantitative data and content analysis to analyze open ended questions from the questionnaires.

#### 5. FINDINGS

The study sought to establish the effect of EDMS on digitization and electronic archival of manual documents and its impact on management of orthodox tea project in KTDA. A likert scale of 1-5 was used with 5 representing extremely great extent; 4-Great extent; 3-Moderate extent; 2- low extent and 1- I don't know. The findings are shown in Table 1.

**Table 1: Effect of EDM system on digitization of documents**

	Real-time notification and tracking of documents and records	Provide complete document and user audit trails	Provide complete document and user audit trails	Hasten access to related business documents	Shorten process cycle times while enabling better decision making	Eliminates duplication documentation	Enhance security and management of enterprise information
N	109	109	109	109	109	109	109
Maximum	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000	5.0000
Mean	4.2593	4.2512	4.1816	4.3689	4.3891	4.3181	4.2271
Standard Deviation	.77306	.73183	.56321	.59268	.86723	.36581	.79623

Source: Research Data (2017)

EDM system had affected digitization of manual documents in the management of orthodox tea project in KTDA to extremely great extent. Functions such as real-time notifications and tracking of documents and records mean 4.2593 and standard deviation of 0.77306, complete and auditable records for decision-making mean 4.2512 and Standard Deviation of 0.73183, hasten access to related business documents mean 4.1816 and Standard Deviation of .56321, shorten processes cycle times while enabling better decision making mean of 4.3689 and Standard Deviation of 0.59268, Eliminates duplication documentation mean 4.3181 and Standard Deviation of 0.86723, enhance security and management of enterprise information mean of 4.3182 and Standard Deviation of 0.86663 and provision complete document and user audit trails mean 4.2271 and Standard Deviation of 0.79623 as shown in table 4.15 above.

#### 6. CONCLUSIONS AND RECOMMENDATIONS

Fairbank, et al. (2006) argued Electronic Document Management System (EDMS) facilitates to advancement the management of information, thereby improving the levels of support and productivity for managers, speeds up communications, increases the productivity of business processes, and improving the flow of information. This concurred with the study conclusion EDM system had digitization of manual documents in the management of orthodox tea project

in KTDA which has improved flow of communication. The study has shown there was strong positive relationship between the project performance and EDMS (Pearson correlation coefficient of 0.824). It had a beta coefficient factor of 0.489 indicating a unit increase in EDMS, while holding all other factors constant will result to a considerable improvement in project performance in the organization. Hence functions such as real-time notifications, tracking of documents, decision-making, accessibility to business documents, shorten processes cycle time, elimination of duplication documentation, security and management of enterprise information had been made easy.

The study recommended Electronic Document Management System (EDMS) improves the performance of projects undertaken by any organization for it provides a workflow system to digitize its documents and archive them electronically in order to enhance their management, increase business processes efficiency and reduce cost. It performs functions such as real-time notifications, tracking of documents, easy accessibility to business documents, shorten processes cycle time, elimination of duplication documentation, security and management of enterprise information. This helps in advancement the management of information, thereby improving the levels of support and productivity for managers, speeds up communications, increases the productivity of business processes, and improving the flow of information.

### REFERENCES

- [1] Benjamin, R. I., Malone, T. W. And Yates, J. 1996, Electronics Markets and Electronics Hierarchies: *Effects On Information Technology On Market Structures And Corporate Strategies*, Working Paper 137, Centre For Information Systems Research, Sloan School Of Management, Massachusetts Institute Of Technology, Cambridge, Massachusetts
- [2] Brown, J., Courtney, N. & Hendry, C. (2006). *Innovation and Performance Of Information Management System*” A Paper Presented a Performance Measurement and Information Management 2006: Private And Public, Cranfield.
- [3] Brynjolfsson, E. (1996). Productive Paradox of Information Technology. *Communications of the ACM* 36(12) 66-77.
- [4] Chi, L., Holsapple, C. & Srinivasan, C. (2007). Linkage Between IOS Use And Competitive Action: *A Competitive Dynamics Perspective. Information System and E-Business Management*, 5(4), 41 – 50
- [5] Dashmir, I. & Albania, B. C. (2013). International Journal On Computer Science. *Information Technology And Security (IJCSITS)*, 3(3), 512 – 519
- [6] Fairbank J., Labainca G., Steensma H., and Metters R (2006), Information Processing Design Choices, Strategy and Risk Management. *Journal of Management Information Systems* 23(1) 293-319
- [7] Gattiker, Thomas F. & Goodhue, Dale L. (2005). What Happens After ERP Implementation: Understanding the Impact of Interdependence and Differentiation on Plant-Level Outcomes. *MIS Quarterly*, (2(3), 45 – 49
- [8] Huang, S. Y., Huang Wu, S. T. H., & Lin, W.-K. (2009). Process Efficiency of Enterprise Resource Planning Adoption. *Industrial Management and Data Systems*, 109 (8), 1085-1090
- [9] Petter, S., Delone, W., & Mclean, E. R. (2013). Information Systems Success: The Quest for Independent Variables. *Journal of Information Management System*, 29(4), 5-12
- [10] Sambamurthy, V., A. Bharadwaj, V. & Grover, (2003). Shaping Agility Through Digital Options: Conceptualizing The Role Of IT In Contemporary Firms. *MIS Quarterly* 30(2) Pp. 237-263