Influence of task characteristics on adoption of project management information system in non-governmental organizations' projects in Nakuru Town (Kenya)

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Abstract: In the world today, Management Information System (MIS) is a buzz in all aspects of our economy in managing people and organizational processes; this is aimed at enhancing economic competitiveness and guaranteeing customer satisfaction. Whereas there is consensus that MIS has huge effect on a firm's productivity, the effects are only realized if and when, MIS is accepted and used. It is essential therefore to understand the determinants of MIS adoption so as to appreciate the enormous benefits attached to it. An understanding of how MIS adoption theories can be beneficial to the attainment of the said benefits is important and especially in the non-governmental organizations (NGO's) sector where the focus of this study was. This study sought to determine the influence of Task Technology Fit Framework on the adoption of Project Management Information System (PMIS) in NGO projects in Nakuru town. The study objectives were to establish the influence of task characteristics on adoption of PMIS by NGO's, to examine the influence of technology characteristics in ascertaining adoption by NGO's, to assess the influence of the individual characteristics in adoption of PMIS by NGO's and to establish organizational management expectations that influence adoption of PMIS by NGO's. The study was carried out in Nakuru town with focus on 40 NGO's that were purposively selected. A study sample of 40 project managers and 80 project coordinators were used. The study adopted descriptive case study research design. The study samples were selected using systematic sampling approach for the identification of NGO's (project managers) and simple random sampling in selection of project coordinators. Data was collected using two sets of questionnaires and interviews. Data collected was then analyzed using SPSS and Microsoft Excel software's. The results were then presented in a tabular summaries form. The study revealed that there was a positive relationship between the nature of task characteristics. The study further implores researchers to keenly investigate all PMIS systems that are in use by NGO's and to standardize their design and usage as seen in the construction industry. The study findings could be used by software developers in designing systems that work best and as well guide management of NGO's in implementing successfully the integration of PMIS.

Keywords: Task Characteristics, Project Management Information System, Non-Governmental Organizations' Projects

1. Introduction

Information systems (IS) cannot be defined exclusively without highlighting its key enabler which in the modern world is referred to as Information Technology (IT). The word technology in the 21st century has a connotation to computing and a myriad of electronic devices that are a hallmark of our living rooms, streets and the environment in its entirety. By definition "Technology" refers to the theoretical and practical knowledge, skills, and artifacts that can be used to develop products and services as well as their production and delivery systems (Burgelman et al.,1996). Information technology thus can be said to be the practical knowledge, artifacts and skills that is required in information management. A system by its nature constitutes several components that work together not in isolation but in an integrated manner with a purpose to achieving a common goal. An IS as used in this study refers to all components and resources necessary to deliver information and information processing functions to the organization; these includes hardware, software, people and a network

interface (Gabber, 2004).

According to the RAND organization (Hundley, 2004, p 2), "Advances in information technology are affecting most segments of business, society, and governments today in many if not most regions of the world. The changes that IT is bringing about in various aspects of life are often collectively called the "information revolution." Drawing from history, revolutions have been experienced in many shades and colors; in 2011, the Arab world had an upsurge of protests as modern technology provided an opportunity in the social media to force leadership change in their countries and in particular Egypt and Tunisia. Were it not for IT probably the story would be different. Over the last few decades we have moved from invention of the written book in Greece around 1000 BC to Gutenberg's printing press and engraving, around AD 1450 (Brandon, D 2006). The latest of revolutions that have changed the way we live was the emergence of the internet and convergence of systems across the world. In his essay on this modern information revolution, business guru Peter Drucker (2004) noted, "This revolution will surely engulf all major institutions of modern society," and "this revolution will force us to redefine what the business enterprise actually is the creation of value and wealth." Modern project management in not a new thing and by the turn of the 20th century (Brandon, D, 2004) use of engineering and management principles pervaded its design and implementation.

"Around that time, managers of such projects faced pressure from proponents of scientific management to organize in a centralized way and control not just what was done but the details of how and when it was done" (Yates, 2000).

PMIS as a part of IS refers to the tools and techniques used to gather, integrate, and disseminate the outputs of project management processes. It is used to support all aspects of the project from initiation through closing, and can include both manual and automated systems (PMI, 2008). This study focuses on automated systems in management of poverty alleviation projects in Nakuru Town. In its design PMIS adoption is tied to the ICT literacy of the users, nature of organizational task and thus a critical evaluation of the workforce competency in usage of related ICT systems is valuable. Nakuru is the one most populated town in Kenya, having a density of 181 persons per km². Nakuru Town is the most densely populated division, where most of the people live in divisions like Kaptembwo, Langalanga, Ponda Mali and Mwariki. The town has been growing at a very high rate while provision of basic facilities has not expanded at the same rate to serve the population (Nakuru district strategic plan 2008).

1.1. Statement of the Problem

In a study to augment TTF, a social Technical gap was established among those using social networking information systems. The Social Technical Gap is "the divide between what we know we must support socially and what we can support technically (Ackerman, 2000)." The Social Technical Gap as captured in the Social network study can be conceived of as a specific instance of task technology fit. Social

requirements are a sub-set of requirements that make up social tasks, such as communication, coordination, and cooperation that are elements of PMIS. Thus the Social Technical Gap explains the lack of fit between social requirements and technical solutions. By its design, task technology fit as a theory in the IS lifecycle portends that at the integration phase of PMIS focus is on the role of PMIS in mainstreaming IS solutions into functional departments (Nolan 1979). The three elements of Task Technology Fit underscore this argument by highlighting task, technology and individual characteristics as an appropriate mix to achieving sound adoption of PMIS in realizing performance. NGO's have people who have unique characteristics and personal attributes but whose influence are essential in adoption of PMIS use. The nature of social tasks that is characteristic of a PMIS like communication, scheduling, budgeting, planning and control must be integrated in system design for it to be adopted as fit for use. The technology that drives PMIS completes the triangulation of TTF.

1.2. Purpose of the Study

The purpose of this study was to assess the adoption of PMIS using the Task Technology Fit (TTF) framework in NGO projects. This evaluation was hinged on the perceived strengths and weaknesses of the TTF theoretical framework in establishing adoption of PMIS use among NGO's in Nakuru Town. With studies gearing to bridging the gaps in TTF theory, the study delved into improving the TTF theory to meeting its goodness in adoption of PMIS by Non-governmental organizations in Nakuru Town.

1.3. Objectives of the Study

This study was guided by four objectives that were drawn from the independent variables forming the TTF theory. These were:

1. To establish the influence of task planning on adoption of PMIS by NGO's
2. To examine the influence of task communication on adoption by NGO's
3. Assess the influence of task scheduling on adoption of PMIS by NGO's
4. To establish how task controlling influence adoption of PMIS by NGO's
5. To determine how task reporting influence adoption of PMIS by NGO's

1.4. Hypotheses of the Study

The study was guided by the following hypotheses;

Ho_1: There is no significant relationship between task planning and PMIS adoption.

Ho_2: There is no significant relationship between task communication and PMIS adoption.

Ho_3: There is no significant relationship between task scheduling and PMIS adoption.

Ho_4: There is no significant relationship between task controlling and PMIS adoption.

Ho$_5$: There is no significant relationship between task reporting and PMIS adoption.

1.5. Significance of the Study

This research was meant to be of immense significance to the NGO sector in Kenya. It did assess whether TTF theory of adoption as integrated in PMIS implementation by most NGO's yields the desired maximum PMIS adoption status in the local context. This was expected to inform donors and NGO management in policy formulation as regards performance improvement and planning their activities in the developing world. The research gives recommendations on the appropriate mix of variables that guarantee adoption of any new technology based on TTF and further advice integration with other MIS adoption theories.

This research further informs best adoption practices among emerging local and international NGO's and other organizations who are intending to adopt some sort of MIS or those that are already implementing MIS. In the interest of living with technology; and the need to meeting our developmental objectives at its best, the study sought to establish if PMIS adoption and usage mitigate pilferage, increase customer satisfaction, motivate project teams and keep the donor community committed to continuous funding in their areas of interest. The successes aforementioned were seen to be the driving factors behind the choice of an adoption strategy in PMIS implementation.

2. Literature Review

2.1. Task Characteristics

This section describes the characteristic requirements of task that are part of PMIS. These include scheduling, planning, reporting, progress review and resource management.

2.1.1. Project Planning

Enterprise guidance and project background information form the basis for planning the project. This information should be a part of the PMIS. The PMIS supports the full range of the project life cycle to include pre-project analysis and post project reviews (Turner 1999).

The PMIS should interface with larger organizational information systems to permit smooth, efficient interchange of information in support of organizational and project objectives and goals (Thomsen 2011). Planning for a PMIS requires that information be selectively included and irrelevant information omitted to preclude an overabundance of data and little relevant information.

2.1.2. Resource Management

Information is needed to manage the project, which is to plan, organize, evaluate, and control the use of resources on the project. The PMIS should be able to apply algorithms such as resources leveling and smoothing to manage the project. The PMIS should be able to check for and help resolve over allocation of resources (Clements, Gido 2006).

2.1.3. Tracking and/or Monitoring

An important purpose served by a PMIS is that it can track at the work package level for early identification of schedule slippage or significant cost overruns on detailed work areas. Early identification of small problems permits the attention to detail before there are major impacts on higher-order work. This is especially important on large projects or projects that have a very rigorous schedule to meet the enterprise's or customer's goals. The PMIS should be prospective and capable of providing intelligence on both the current and probable future progress and status of the project (Thomsen 2011).

2.1.4. Report Generation

Information to manage a project comes from a wide variety of sources, including formal reports, informal sources, observation, project review meetings, and questioning which is aided by formal evaluation and analysis as to what the information says about the status of the project (Thomsen 2011). Reporting capabilities are given a high priority, because the ability to produce extensive and power reports is a feature that most users and stakeholders rate very highly (Clements, Gido 2006). The PMIS should be able to provide reports on the project's status and progress, planning, scheduling, individual tasks and resources.

2.1.5. Integration with other Systems

The PMIS should provide integration with distributed databases, spread sheets, and even object-orientated databases. Furthermore, the system should be able to import and export information to and from word processing and graphics packages (Gido 2006). The system should also do this through e-mail and other communication avenues provided for in the system. Information provides the basis for continuation of the project in the absence of the project manager. The project team can monitor the progress of the project and compare it to the project plan to assure that work is progressing satisfactorily. An effective PMIS provides the information that demonstrates when the project is on track or when it has exceeded the allowable limits of performance. A PMIS should be able to track the progress of tasks, durations, costs, committed or spent, and resources.
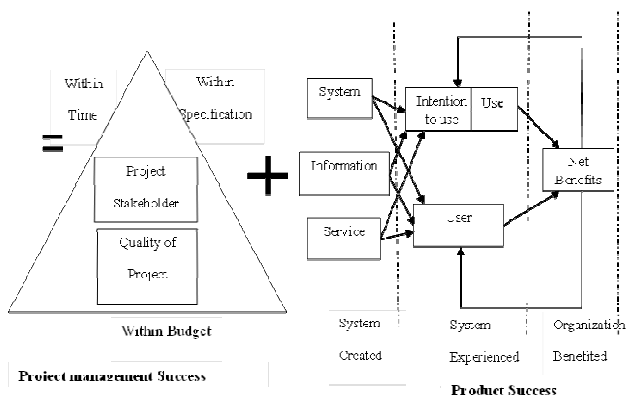
2.2. Project Management Information System

Project management information system is an open collaborative system that is used to manage projects. It provides business processes and procedures which are either virtual in integration and access or are standalone systems which operate within an organization. It houses data and provides routes along which appropriate workflow demands, information log trail and record generation are managed. Constant communication between stakeholders that are geographically a part allows for timely feedback eliminating misinformation. In the past companies used unrelated tools to manage projects; tools like email communication, paper processes and document storage were dispersed in location making it quite difficult to track and report on project status.

Today PMIS manages several projects with an escalation of its adoption across the globe.

The true innovation in PMIS is the way it facilitates communication between the management, site workers, middle management, affiliate organizations and other stakeholders. PMIS combines project management and technology to produce a global collaborative network. All stakeholders, owners, vendors all work in single system with a single set of data. As the system records, routes, tracks and notifies, it creates a documented trail of decision making that follows established processes across the entire organization that ultimately reduces failures. PMIS creates an environment that enables full compliance and consistency across the projects in key areas that include communication, administration of employees, document storage, sharing lessons learnt, manage gained knowledge, track, analyze, report projects and manage working relationships among the work force.
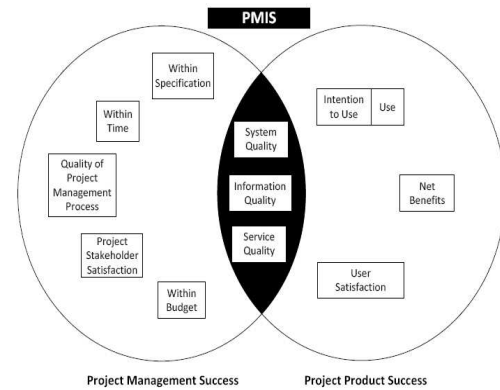
2.3. Successes of Project Management Information Systems

Project success consists of two separate components, namely project management success and project product success (Baccarini 1999). Project management success focuses on the project management process and in particular on the successful accomplishment of the project with regards to cost, time and quality. These three dimensions indicate the degree of the 'efficiency of project execution'. Project product success on the other hand focuses on the effects of the project's end-product. Even though project product success is distinguishable from project management success, the successful outcomes both of them are inseparably linked. 'If the venture is not a success, neither is the project' (Pinkerton 2003). McLean (2003) illustrates the components and requirements within the project management success as; within time, specification and budget and product success as; system quality, information quality, service quality, information usage, user satisfaction, individual impact, and organizational impact.

Source: Delone and Mclean (2003).

Figure 1. Adding project management success to the Delone and Mclean Success Model.

Source: Fitzgerald (2004)

Figure 1. Adapted from common dimensions in project management success with PMIS overlap.
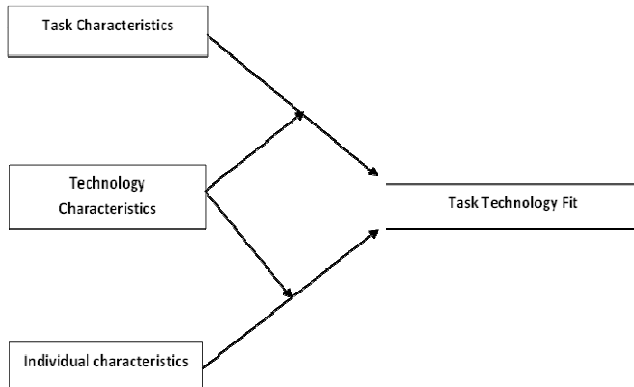
Consequently, it is clear that a Project Management Information System is the golden midway for project management towards project success. This is illustrated below in Figure 2-3: Adapted Common dimensions in project management success and project product success with PMIS overlap (Fitzgerald 2004).

Essentially, the task of PMIS has been described as subservient to the attainment of project goals and the implementation of project strategies; it provides project managers with essential information on the cost-time performance parameters of a project and on the interrelationship of these parameters (Raymond et al., 1987). In the IT industry today, Gartner research estimates that 75% of projects managed with PMIS support will succeed while 75% of projects without such support will fail (Light M., et.al., 2005). In light of this, research also cautions that only a small number of projects utilize all PMIS tools during the project management life cycle such as planning, scheduling, risk management, cost estimates, document management, communicating, and reporting (Herroelen,2005; Love & Irani 2003).

2.4. Information Systems Task Technology Fit Theory

The core of a task technology fit theory is a formal construct known as task-Technology Fit (TFT), which is the matching of the capabilities of the technology to the demands of the task, that is, the ability of IT to support a task (Goodhue and Thompson 1995). TTF model have three key constructs, Task characteristics, Technology characteristics, which inadvertently affect the third construct Task Technology Fit, which in turn affects the outcome variable, either performance of utilization of technology. This model propose that technology that does not offer the perceived usefulness will not easily be adopted for use; technology will only be used if and only if the said functionality element in its design support the activities and processes that the user expects it to accomplish. A common addition to TTF theory is the individual's abilities that enable them to use the technology (Goodhue 1988, Goodhue and Thompson 1995). The

inclusion of Individual abilities is supported by both Work Adjustment Theory from which TTF was originally derived and recent MIS studies in which Experience with a particular IT is generally associated with higher utilization of that IT (Guinan et al.1997, Thompson et al.1994)

Source: Thompson (1995)

Figure 3. A model of the task technology Fit framework.

2.5. PMIS Adoption Challenges and its Requirements

Organizations are constantly shrouded with many ongoing internal and external pressures that influence the way they operate; this portend a potential for changes either within their operations or in their management approach. Such pressures usually dictate the necessity for potential shift in infrastructural arrangements of the IS's that are in use; organizations are therefore forced to take on challenges of implementing new IS's or accept whatever consequences that might follow due to failure to switch gear in this endeavor. Whereas businesses must continuously grow organically to survive, NGO's must constantly adapt to the changes in the market place and diversify to meet the changing global demands. This means that the requirements of the PMISs will also change and utilize the power of technology to meet the ongoing needs of the organization (Senn, 1990).

With the development of PMIS's there is always the hope for seamless PMIS implementation and the projects for which the services are intended expects that there will be no interruptions in delivery of outlined outputs and impacts. However, there are many opportunities for things to go wrong during PMIS implementation and NGO's take the number of risks when embarking on this course of action (Moguire, 2002). The challenges identified by studies done over the years are split into three categories which mirror the variables in this study. These include; operational issues, task characteristics, individual human characteristics and technological issues.
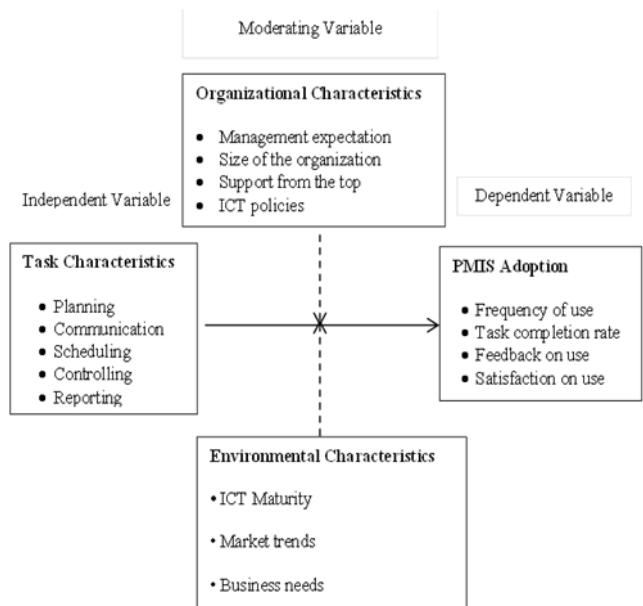
2.6. Conceptual Framework

Figure 4. Conceptual Framework

3. Methodology

3.1. Research Design

A research design is the scheme, outline, plan, structure or a strategy of investigation conceived so as to obtain answers to research questions and control variables; it constitutes a blueprint for the collection, measurement, and analysis of data (Kothari, 2003). This study adopted descriptive and correlational survey research design employing a triangulation approach where both quantitative and qualitative approaches are integrated.

3.2. Target Population

The target population for this study was the 90 non-governmental organizations within Nakuru town which could be local to Nakuru or are international in their service delivery which already employing PMIS in their financial systems. In stratifying the selected geographical area, the study categorizes the NGO's as international and local. The study then further sought to only involve NGO's that have operations outside the town that requires remote linkage with the main office assumed to be in Nakuru for local NGO's and international headquarters for those that are international. Within these NGO's, the study focused on Project managers and the functional project coordinators in each of their project areas.

3.3. Sampling Procedure and Sample Size

Purposive sampling approach was applied in this study; this is courtesy of the stated study objectives which ties the study to elements of TTF as applied in PMIS adoption. Because not all NGO's have PMIS within their operations the target is the 90 out of the 145 with operations in Nakuru town. A sample of 53 NGO's was picked from the 90 that have operations remote

to Nakuru Town and which forms the research population. This is 62 % of the total number of NGO's that are in Nakuru town. From each NGO selected samples of 2 project coordinators were chosen randomly using simple random sampling. The project managers being averagely 1 per project were clustered into NGO's that have more than 1 project manager and those that have only one and from which 1 was chosen from each cluster.

The determination of the sample size was done using Cochran's (1977) formulas. Cochran's sample size for categorical data is:

$$n = t^2pq/d^2 = (1.96)^2 \, (.50)(.50)/(.50)^2$$

$$n \text{ thus} = 384$$

Where: n = desired sample size

t = value of selected alpha level of 0.25 in each tail = 1.96 (the alpha level of 0.5 indicates the level of risk the researcher is willing to take; the true margin of error may exceed the margin of acceptable margin of error.

pq = estimate of variance =0.25 (maximum possible proportion (.50) producing maximum possible sample size)

d = acceptable margin of error

Therefore for a population of 90 NGO's (270) with PMIS the required sample size is calculated as follows:

$n_f = N/(1+n/population)$

$n_f = 384/(1+(384/270)$

$n_f = 160$

The study will use a sample size of 159 respondents comprising project managers and coordinators distributed across all selected 53 NGO's which mathematically fit within the 1:2 ratio though not 160 as above.

3.4. Data Collection

Questionnaire and an in depth interview were used to collect primary data. The project managers and project coordinators were the major targets. Focus group discussion was also be used to help clarify issues pertaining to interview questions in the in depth interview schedule. Different questionnaires were used for both the project managers and project coordinators. While the majority of questions were different, a number were similar for validity and reliability reasons. Both open ended and closed ended questions were used. The questionnaires were emailed to the respondents and also hard copies provided at their offices in an effort to try and increase the return rate. In depth interviews were mainly conducted with the project manager's in every organization. In cases where project managers were not available program coordinators in charge were considered.

3.5. Data Analysis

Filled up questionnaires were checked for completeness, consistency and clarity. The responses were coded by assigning a numerical value to each; this was to make them quantitative for ease of possible capture by the computer in SPSS for Windows Version 19 analysis. In order to clean up the data averages like mean and median as well as distributions like standard deviations were performed on the data sets in order to discover any anomalies and appropriate corrections done. Descriptive statistics such as frequencies, percentages, median and mode were used for quantitative analysis of the data. To establish the extent to which several NGO have adopted use of PMIS, a Pearson product correlation moment coefficient of selected variables were generated to obtain a general view of the respondents' opinions on the influence on PMIS adoption. To establish the magnitude of relationships as captured by the hypotheses, a cross tab chi-square coefficient guided the acceptance on non –acceptance of p -values based on a statistical standard of measure at (0.05) 95% confidence level.

4. Research Findings

4.1. Response Rate

Table 1. Response rate.

Category of respondents	Feedback (Number of questionnaires returned)	Target No. of questionnaires (Sample size)	Response rate
Project mangers	40	53	76.9 %
Project Coordinators'	80	106	74.1%

4.2. Type of NGO by Affiliation

Table 2. Type of NGO by Affiliation.

NGO type	Frequency	Percent
Local	23	57.5
International	17	42.5
Total	40	100.0

The study show that majority at 57.5 % of the respondents were drawn from the local NGO affiliation. 42.5 % of the NGO's are international which gives a fair share of all interest in development. The implication of this distribution on its own does not have any statistical significance and neither would it point conclusions in any direction.

Comparing the affiliation of the NGO's and the years PMIS have existed reflects however a very weak negative correlation (r (40) = -0.001) as shown in Table 7 below. It is thus confirmatory that with maturity of an organization it is not likely it will embrace PMIS. The international NGO's are expected to have an edge over their local counterparts when it comes to existence of PMIS in their functional units since they connect quite often in reporting to their headquarters abroad. This again disputes the notion of PMIS use and adoption among NGO's based on affiliation.

4.3. Year's Organization has Used PMIS

The findings to how long the organization has used PMIS for both project manager and project coordinators are shown

in a Table 8 below. It should be noted that only 40 organizations were considered in the study thus the findings from the project managers reflects exactly what the project coordinators did fill in. Each project manager had 2 project coordinators considered in the study from the same organization.

***Table 3.** Years Organization has used PMIS.*

Years of PMIS use	Frequency	Percent
Between 1 and 5	11	27.5
Between 6 and 10	11	27.5
Between 11 and 15	6	15
Between 16 and 20	10	25
>20	2	5
Total	40	100

Most of the organization appeared to have used PMIS for more than 20 years with a cumulative frequency of 95 % use over the last 20 years. A paltry 5 % of the organizations involved had used PMIS for the last 30 years. These findings are a pointer to the fact that PMIS is not a new thing among NGO's in Nakuru and based on these figures adoption and full use of PMIS begged answers owing to such a huge percentage of PMIS use over the years.

4.4. The Influence of Task Characteristics in Ascertaining Adoption by NGO's

This section presents the findings related to the influence of task characteristic indicators of a PMIS that define key operations by a given NGO in its adoption and usage.

4.4.1. Task Characteristics Indicators

***Table 4.** Task characteristics indicators.*

Task characteristic indicators	Category	Frequency	Percent
Planning within a PMIS	Y	66	82.5
	N	14	17.5
Task scheduling within a PMIS	Y	42	52.5
	N	38	47.5
Progress review within a PMIS	Pert chart	63	78.8
	Gantt Chart	8	10
	Other	9	11.3
Mode of communication	E-mail	40	100
Format of reporting	Brief	35	43.8
	Comprehensive	43	53.8
	Other	2	2.5

4.4.2. Task Scheduling within a PMIS

Task scheduling is a key component of any standard PMIS; it does allow users to schedule activities that they wish to accomplish over a given period of time. 52.5% of the respondents are in agreement that their system allows scheduling of activities with 47.5% not being able. This therefore implies that as a task characteristic in a PMIS the influence might be negative in enhancing adoption levels as the sole purpose of scheduling is to bring order especially where a project involves a large group who are geographically displaced. The figures provide an insight as to the need to have the necessary standard task characteristic in any given PMIS for the lack of any influences to a larger extent adoption levels.

4.4.3. Progress Review within a PMIS

The results above shows that most organizations have within their PMIS task characteristics which is a project review tool that helps in monitoring the progress of a project. 78.8% have a project evaluation and review technique tool integrated within their systems, 10% have a Gantt chart while 11.3% uses a spreadsheet, mobile phones and project forums under other techniques. The implication here is that most organizations have a review tool of some sort meaning as a task characteristic within a PMIS, the use of a review tool is crucial in influencing adoption and usage of a PMIS.

4.4.4. Planning within a PMIS

The results above shows 82.5% of the respondents plan their work using the PMIS system. 17.5% do not plan their work within the system but use other software techniques in doing so. Planning being a key task characteristic component of a PMIS it is implied therefore that its inclusion is very essential in influencing adoption and usage of PMIS. Though a smaller percentage does not plan within the PMIS it was clear from the interviews that other mechanisms are used while planning and in some cases attributed to lack of integration in certain systems.

4.4.5. Mode of Communication Preferred within PMIS

It is clear from the results obtained that all the reporting and communication within any PMIS used by NGO's in Nakuru is 100% email. The implication of these results is that despite the availability of other modes of communication email still ranks top meaning that these other communication modes need not be included in the PMIS so as to only have what is fit for use thereby making the PMIS interface less confusing.

4.4.6. Format of Reporting to Upper Management

The Table shows comprehensive (53.8%) reporting as the preferred mode compared to brief (43.8%) and others (2.5%). The implication here is that whatever the nature of the report as a task characteristic there must be an element of reporting in PMIS if it is to be effectively of use and relevance to the users. From a management information systems view point the top management requires very brief but synthesized reports that can then assist in decision making. The fact that 53.8% of the project coordinators do provide comprehensive reports it was clear from the interview that the project managers usually require both the brief and the comprehensive report in aiding full comprehension of the facts as presented.

4.4.7. Promptness' on Feedback and Frequency of Reporting

The table below presents findings on promptness' on feedback and frequency of reporting as other indicators of task characteristic in PMIS.

***Table 5.** Task Characteristics Indicators (2).*

Task indicators	Hourly	Daily	Weekly	Fortnightly
Promptness of feedback	5	60	14	1
Percent	6.3	75	17.5	1.3
Frequency of reporting	4	47	24	5
Percent	5	58.8	30	6.3

4.4.8. Frequency of Reporting to Upper Management

The results shows that majority (58.8%) report on a daily basis compared to 30.0% weekly reporting, 6.3% monthly reporting and hourly reporting at 5.0%. These figures imply that there is less pressure on the system at any given time during the day as the project coordinators report mainly at close of business. Drawing a comparison with the nature of reports which shows 53.8% giving descriptive reports a conclusion is thus derived at that it is the project managers that will condense the obtained information into a succinct form for onward transmission to other stakeholders'. This in effect guarantees that the usage of the PMIS in quite mandatory at the project managers level.

4.4.9. Promptness of Feedback from Project Manager

The findings as shown in the Table above is that 75% get feedback daily from the project managers compared to 17.5% who get weekly feedback, 6.3% who get hourly feedback and a paltry 1.3% who get fortnightly feedback. The findings imply that reports given to project managers are quickly acted upon and any clarifications are obtained within a day. These findings point to a very efficient communication within the PMIS which is task component met within its usage.

5. Conclusions and Recommendations

Tasks that are integrated within a PMIS have a very significant influence on the level of adoption and usage within a PMIS. The inherent task characteristics that were identified by the study to be significant included the planning tool, task scheduling tool, project review tool (Pert chart), communication, different report export/import tools to other auxiliary software's. Task integration of all these components appeared to influence much the appreciation of the systems capability and to larger extent the conviction by user that PMIS is a good thing.

Based on the findings, the researcher recommended that besides the choice of PMIS it is cognizant that policies be put in place that guides its full implementation. The entire process of systems analysis and design must be fully embraced and both feasibility study on the user expectations and their feedback at each stage of implementation be adhered to fully.

During this study the researcher identified some areas that require further research. Having analyzed the task, technology fit framework and recognizing the characteristic nature of this theory the study thus confirms that technology adoption is not only a Fit element from the design angle but the characteristic nature of individual as well as the control on the users. This study recommends that further research be done in establishing why there is unanimity that PMIS is a good thing yet with training and support still the benefits that are expected to accrue from its usage does not translate to increased level of performance especially among those working in NGO's. This analogy is captured on the different PMIS systems that are in use by most NGO's. Unlike PMIS used in other organizations where standards are set and only

few systems are in use with maximum outputs very little interest is coming from the developers to entrenching certain standards in NGO PMIS's that can translate to maximum benefits for the these organizations.

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