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# Dynamics of Management Activities in Successful Implementation and Operations of Information Systems

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**Abstract**
With the widely used of Information Technology in the operations of business organizations in Ghana, transformation of service provision is guaranteed and customers and other stakeholders are benefiting in many ways indication the success of the use of information systems. The research is aimed at establishing relationship between the roles played by managers and the success of information systems. Survey method was employed in the study with the selection of two hundred (200) participants including employees and managers of five banks and three insurance companies in Ghana. Questionnaires were administered to the employees and interview conducted for the managers. The data collected and anylised showed that the roles of managers are very paramount to successful implementation and usage of information systems. It is noted that definition of information system goals is the main indicator of information systems success, followed by IT knowledge of managers, and supportiveness from both managers and employees in that order. It is therefore dawn on managers to have little knowledge in IT so that they can support the design and implementation of IT projects in their organizations.
**Keywords:** IT knowledge, management roles, employees' attitudes, information systems success, supportiveness

## 1.0 Introduction

Competition among most organisations in the world today is becoming keener and keener as a result of the use of Automated Information Systems (AIS); this has made the whole world a small place to live in because information can reach every part of the globe within a matter of a few seconds. Successful application of the present day Automated Information Systems is highly behind the transformation of the world to be like a village. Many Information System (IS) projects may lead to the implementation of standardised software packages such as Enterprise Resources Planning (ERP) Systems of various kinds and many different others that are springing up in organisations. In these cases the concept of best practice is often emphasized by most organisation. The standardised systems consist of solutions that are claimed to be optimal for a certain sector or line of business (Davenport, 2000; Kremers & van Dissel, 2000; Sammon & Adam, 2005). Even with the best practice, there may be some kind of critical opinions from different people, for example, someone may argue that it is the IT vendor who has most to gain from recommending best practice solutions (Wagner and Newell, 2004). This argument may be based on the failure of some information systems experienced by some organizations.

In the developing world, it is observed that, the deployment of ICT and for that matter IS is on the increase and has therefore become a thing no organisation will dispense with. Organizations that are using Information Systems are finding it useful due to the tremendous changes in their operations and the benefits that come with their use. According to Davenport, (2000); Kremers & van Dissel, (2000); Sammon & Adam, (2005), as cited in Karin, Ulf, & Fredrik, (2011), the standardized systems consist of solutions to problems that are claimed to be optimal for particular sector or line of business. Most organizations are now going on well with the application of information systems because of the success such systems achieved.

In Ghana, most managers of corporate organizations have done away with manual information systems, giving chance to the automated ones due the innovations in the ICT industry coupled with the tremendous benefits derived by firms that are the pioneers in the use of this technology. Some of these Information systems come with complex software and higher processing and storage capacity. Above all, the availability of the Internet has created a great opportunity to the contemporary firms to do a lot of better things including undertaking collaborative activities with the important stakeholders as well as employees.

Success of Information systems is a concern for organisations because projects (Information Systems) are undertaken for diverse purposes and their failure will cost organizations a lot; especially all the resources invested in the establishment of the Information Systems would be lost. The success of the IT projects makes organizations look unique. Gratton & Ghoshal (2005) proposed that organizations need to combine best practice processes with "unique signature processes" that differentiate them from others. In this context, best practice can be defined as some kind of standardized practice that is generally accessible, while organizations also need to put their own signature on their processes in order to differentiate themselves from their competitors, (Gratton & Ghoshal 2005).

Many researchers have discussed Successful implementation processes of Information Communication Technology (ICT) projects for decades and are still researching into it. According to Szulanski, (1996), Rockart,

(1979) as cited by Axelsson et al, (2013), many attempts have been made by researchers to explain why some projects (Automated Information Systems) are successful while others fail. Researches into this will continue due to the fact that the environments in which information systems are established and used are changing as well as the rapid changing dimensions of the ICT.

Thanks for the adoption and usage of ICT and its advancement in the world. This technology has possibly and easily changed all organisational operations within a short period of time and made their activities competitive. To make them have competitive advantage and make themselves look unique in the market, most corporation enterprises if not all are fast adopting Information Systems (IS) in their operations. Organisations are relying very heavily on IS in their operations to serve customers and other stakeholders fast, efficiently and satisfactorily.

This paper looks at the establishment and use of information systems and how they are made successful in some selected corporate organisations in Ghana and most importantly; the roles management and employees play in making information system successful. This study actually aims to evaluate the relationship between the roles of management leading to employees' attitudes in an organization and the establishment and success of Automated Information Systems in Ghana. Specifically the study is focused on the:

- relationship between management IT knowledge and information systems success
- effects of management roles on the success of information systems
- relationship between employees attitude and success of information systems

## 2.0 Literature development

Many organizations are adopting IT in executing almost all activities to achieve their organisational goals. This may seem to be the best practice in the industrial world. Best practice was seen in the early industrial era and was a keystone in the Taylorism tradition (Taylor, 1911). The use of IT alone might not be viewed to be the best business practice in the world. The reason might be that the best way to solve problems and achieve organisational objectives effectively should be identification and employment of a suitable technology and hence the adoption of ISs by managers. According to Szulanski (1996) the best practice refers to the organization's routine usage of knowledge. In general terms, best practice could relate to taking advantage of previous observations to enable one to define possible feasible ways of conducting activities and solving problems. Stephenson & Bandara (2007) indicated that by using such knowledge, organizations can be beneficial and ensure quality in their results and maintain consistency in their actions.

The financial and Communication sectors are the main users of Information Systems (ISs) for some time now in Ghana. IS applications help financial organisations in many ways. An example is the introduction of the ATM centres, telephone banking technologies, Electronic Funds Transfer (EFT) systems, coupled with the adoption of electronic clearing systems, which assist all sectors to provide effective services to customers at lower cost, leading largely to reduction in number of employees hired. ISs provide a suitable platform for managers of organizations to practice virtual organsational systems, adopting virtual community system for customers who assist each other in solving problems. The interpretation and understanding of business operations at this present time is information system application. Effective utilization of ISs makes it easy for organisations to process all kinds of business transactions easily, accurately, and timely.

### 2.1 Research Framework and Hypothesis

Yet still some organizations are reluctant to use the ICT; this might be generally due to the difficulty most people have in understanding the full cost-benefit analysis of information systems. This makes it difficult for such organizations to relate the amount of money invested in IT projects and the benefits derived from their use. However, some organizations have now acknowledged the issue of cost-benefit analysis relating to ISs and that is the reason for the gradually wide application of ICT by corporate organisations.

The wide ranging benefits and savings of ERP also pose much controversy for accounting purpose as it remains subjective in nature (intangible). As intangible benefits are difficult to quantify, thus complicates the justification process leading to investment in IT. This notion was supported by Small & Chen (1995) who argued on the limitations of the conventional accounting techniques to account for the "full" dimension of costs associated with IS implementation. Such limitations raise queries on the "value" of the conventional accounting techniques.

 

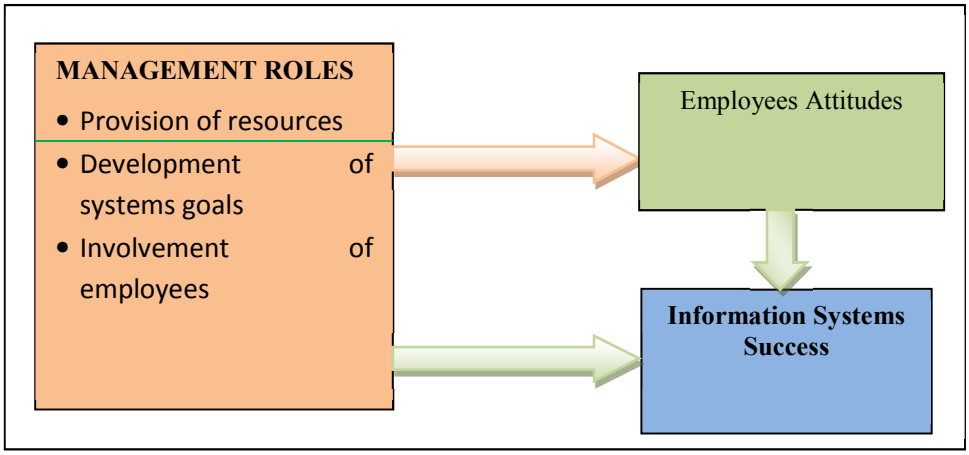


**Figure 1: Roles of Management, employees' attitudes and information systems success**

### 2.1.1 Management IT Knowledge

It is very often the case that, establishment of Information Systems is generally the responsibility of management even though in a very few cases, the idea may be moved by an employee. In a case of such nature, management must take it up from the point where an employee moved the idea because Information Systems' projects funding is squarely the responsibility of management because they are the properties of an enterprise. Convincing workers on the need for employment of ICT in the operations of organisational activities, is the huddle facing top-level management. Some employees may reject the idea especially those who do not like changes and more so those who feel that the introduction of ISs may have adverse effect on them either personally of holistically.

If top-level managers have knowledge in IT, they will ensure that IS is established and used in organisation since it would be seen as a factor that may support the smooth and easy operations of business activities. This is however anticipated since past researches frequently emphasized the importance of top-level management support and commitment in any development and implementation process; total quality management (Black & Porter, 1996). The importance of top management commitment to IT usage in most cases is based to large extent on the level of knowledge such a manager has in ICT. From observation, it is emphasized by most IT directors who work in organization where top managers do not have knowledge in IT that, it is however very difficult to convince such management to employ ICT in carrying out business transactions, and hence alignment between organisation and ICT usage will definitely fail.

ICT knowledgeable managers can demonstrate their commitment to the strategic use of ICT in more than one way. One of these ways is, elevating the status of the top IS executive such that he or she reports directly to the CEO (Raghunathan & Raghunathan, 1989). If this elevation is carried out in an organization, it will pave the way for closer relationships between IT department and other departments that use information systems. Another way is that, top-level management must have assurance in the potentials of the IS department to bring into use suitable systems that are critical for the successful execution of firm's transactions. Management will employ well qualified personnel into the IT department if they have knowledge in IT and believe that the use of IT will make the organization succeed, and this will also contribute to the success of information system. The role of IT department is more likely to be elevated from a supporting role to a more strategic Teo, 1997; and Ang, 1995). Managers who have no prior knowledge in ICT will find it difficult to understand the head of IT department; this can make information systems unsuccessful. Management having knowledge in IT will contribute positively to design of a good strategy for the use of information systems and in view of this:

***H1. Management having prior knowledge in ICT and knowing the importance and use of ICT will lead to successful design and implementation of information systems.***

### 2.1.2 Provision of Resources

Resources refer to anything needed to carry out activities effectively and efficiently. According to Ein-Dor & Segev (1978), resources include money, people, and time that are required to successfully complete a project. Availability of resources leads to a better organisational commitment and also overcome organisational obstacles (Beath, 1991), Tait & Vessey, 1988). Availability of sufficient resources also leads to successful implementation of organisational projects, (Wixom & Watson, 2001). Adequate and timely provision of the needed resources for successful execution of a project is very crucial. The success of a project (Information Systems) is based to a larger extent on how well resources are made available and utilised. However, some managers find it very difficult to provide resources for a project for various reasons; some of which may be highly personal, highly

 

inadequate resources available, lack of interest in the project at hand, etc. People can argue that managers, who have knowledge about ICT, will ensure that adequate resources are always available for implementation of ICT projects.

First, IT workers would want to have a say in what work they do, in this respect, any allocation of resources to IT department needs to be negotiated, not decided unilaterally, as an investor would do with his or her money. In some instances, generally, if investment requires expensive financial resources which generally frighten managers, they will be unable to allocate adequate resources for such projects. However, managers, like investors retain the right to decide on whether to allocate resources to such projects or not and how much to allocate to a particular ICT project. In this respect managers have to ask IT workers a question like, "What do you think?" instead of dictating to them what amount of resource they should use.

***H2. Provision of the required resources in the needed quantity and at the right time has positive influence on the success of information systems.***

**2.1.3 Development of Systems Goals**

Goals are future ideal towards which activities are directed. In other words, goals are predetermined, described, and explained ideas toward which efforts are directed. Each organisation definitely must have goals which should enable it keep its operations defined appropriately. Generally, organisational goals can be categorized into two – official, and operative. Official goals are actually the general aims set to be achieved by an organisation and are articulated in a company's charter, yearly reports, and mission statements. The purpose of this goal is to give the organisation a favourable public image, legitimacy, and guide the activities of the organisation concerned.

Operative goals on the other hand, portray the actual purpose of a corporate setup. They describe the substance steps to be taken to accomplish the organisation's goals. According to Pfeffer & Salancik (2001), there is actually one obvious and clearly shared goal in any organisation, and that is survival, which is related to operational goals. Operative goals acceptably are the outcome of in-house discussions among groups and coalitions of an organisation who want to ensure that their interests are heard and considered and for that matter they often differ from the official goals in some cases.

It is therefore observed that any project undertaken by an organisation should have goals defined and specified to be worked toward. In this vein, if an information system is to be established; its goals or aims must be set, and related to the main purpose of the organisation; to promote the achievement of organisational goals. The IS aims must be tied to the overall organisational plans to ensure its success, (Sauneers & Jones 1992). The corollary in this respect is that achieving the information systems' goals, the organisational goals too will be realised. The goals of information system could be an example of an operative one and must therefore be defined with maximum consultation with employees. If employees are involved in the formulation of information system goals, it is obvious that such goals become part of them and they will be motivated to work towards achieving them. According to Nath (1989), achievement of information systems goals is linked to its success.

Information System goals must have main basic characteristics – specific, measurable, attainable, relevant, and time-related. A goal is seen to be precise when it contains a description of what should be focused on so that it can be realised. It must state specifically what the organisation expects to achieve. IS goals should be specific, measurable, recorded so that they could be referred to from time to time by the workers. That means, the goals must be achieved by obtaining a standard which would serve as base for measurement. There must be all possibility that an objective should be achieved even though it must be challenging. Achievable objectives should be set by or with the one responsible for its achievement because they must agree with management that the goals are important, and adequate time, and other resources are available to be utilized in their achievement.

Goals should be in line with and dependable on the mission and vision of the organisation. Each goal adopted by the organisation should be one that moves the organisation toward the achievement of its vision. Relevant goals must be in agreement with other goals of an organisation. It is appropriate that short-term goals are defined to be relevant with the longer-term and broader goals of an organisation. Specifically, a goal should be time-bound, meaning that it should be achieved within a specified duration. That means, specific goals must have commencing and finishing points. It must also have points in-between at which performance can be measured. Specifying a time period for the achievement of objectives helps much to focus activities on them to ensure their achievement. Any achievable IS goals must have the above characteristics.

***H3. Development of suitable information system goals has direct and positive influence on information systems success***

**2.1.4 Employees Involvement**

*In many organizations nowadays, employees know much more about their work than their supervisors (managers). This reality must make managers aware that still clinging to the old, top-down style of managing must be a thing of the past because many employees today are very capable of managing themselves and the jobs entrusted into their hands.* All issues handled by management at the organisational level have diverse effects on employees and therefore decisions affecting workers must be made with them to tap their wide experiences and

 

wisdom and sustain their best interest in the organisation. It is important to make employees know via regular interaction with them that their needs and opinions are valued and therefore cherished. Employees should feel that they have the ability and right to approach management in any situation and this should always be taken into account when management makes further decisions. In a nutshel, management is the backbone of the organization as well as its eyes and ears, and employees must know this when interacting with management for solving problems.

Indeed, well informed employees must see the needs overlooked by managers and remind them accordingly. This interaction involves two-way communication and negotiation, not one-way; top-down directing. Also, innovative employees may devise new services or methods of operation to "sell" to their managers as a way of advancing their careers. Employees who suggest a better way of managing some part of the business and offer to do it themselves, can in steps, transform their roles into something new. By so doing, employees become more empowered to manage their own careers thus contributing to the success of projects (Information Systems) being undertaken in the organisation. Mostly, high-demand IT workers are always in short supply, and therefore have more power than their bosses. Such employees being knowledgeable might offer more advice to their bosses rather than the other way round. This can lead to successful operation of information systems.

Managers need to bring the right people (workers) together, engage them in planning, execution, and coordination of the works. Managers have to monitor the progress of projects, but must listen more often than provide one-way direction. The principle here is, managers assist employees to be involved in the palnning and execution of ICT projects. Managers must be conscious not to block employees' innovative actions as it may lead to failure of information systems. To foster innovation among employees, managers must act as facilitators and culture builders to pave way for employing the right people and provide other resources along with the necessary support mechanisms needed to foster creative thinking in the employees.

As employees become more engaged, their status changes from simply being hired hands to being more like self-employed business people supplying services to internal customers. If this happens, it benefits the organization in many ways because the employees see themselves as the owners and will do everything possible to achieve the best.

***H4. Effective involvement of employees in the decision making process before and after the design and during the operations of information systems positively affect the success of information systems.***

**2.1.5 Employees' Attitude**

Human resources of organization can be classified into different groups; according to positions held and responsibilities given to them. For this reason, we can talk about management and employees. Management, used in this paper refers to both top-level and middle-level managers. Employees may dislike information system introduced into an organisation especially if inadequate education is provided to them before its establishment. That is, if they are not involved in the decision making process of information system development, the success of information systems will be at stake. Lucas (1976), conducted a study and found that an employee's behavior is related to his or her feelings or beliefs about the system.

Another area where employees can reject information systems project is the complexity of the systems. This could be based on the procedures utilized during the design and implementation of the system concerned. Complexity of a system could be related to the software being employed in the system especially if employees are not familiar with it. In this regard, employees can develop sadness and dislike for such system and this can lead to system failure. The fundamental problem may be concisely stated: IS can fail where users' attitudes based on other managerial factors that might have been ignored by system designers. One main belief gathered from people's observation is that attitudes of IS users are related to their actual use of systems. Surveys and experiments showed that attitudes toward various features of an information system development personnel, and computers in general are related to user attitude. Findings of this nature probably are necessary for establishing preliminary groundwork and generating interest in the users of information systems from the scratch.

Employees can develop positive attitudes toward the operations of Information System if they feel engaged in the organisation and accepted the responsibility of their jobs positively. Those employees who are fully engaged in the information systems would be competent with the highest skill levels and will possibly operate the system successfully and increase output if they have developed positive attitude toward work. They will possibly feel connected, committed to the success of the Information Systems and show that they are fully invested in the success of the Information System. Disengaged employees will not see the need to work toward the success of the organization and will therefore do everything possible to make information systems unsuccessful. They will always be looking for opportunities everywhere and eventually leave any time an opportunity strikes elsewhere.

Workplace attitudes both positive and negative can easily and quickly spread to all parts of an organization in the shortest period of time. Employees' negative attitudes can have immediate effect; reduce trust and goodwill towards co-workers, which may deplete collaboration between workers and decrease output

 

eventually. Poor social environment in an organization could contribute to isolation of individual employees; this can create incentive to lower performance and eventually, output will negatively be affected leading to failure of information systems. Negative social environment breaks down collaboration among employees and creates dichotomy or separation among workers, which will make it very difficult for them to consult each other during their job performance. Unfair treatment of employees by management can bring about poor social environment in an organization.

Above all, success of information system can be ascertained when its objectives are achieved and employees show positive support for it. Employees' willingness to keep operating information systems continuously can be translated to mean that, it is successful for, any unsuccessful information system will be discarded by employees and will never be in operation.

***H5. Positive attitude of employees towards the establishment and use of information systems positively and direct influences the success of information systems.***

## 3.0 Method

This section of the research deals with the selection of research method used as the basis for designing questionnaire, collecting and processing data to show the results of the research. According to Blumberg, Cooper, & Schindler (2005), research design is the plan and structure of investigation so conceived as to obtain answers to research questions and Burbules (2000) defined research as the process of making knowledge claims and then refining or abandoning some of them for claims that are more strongly warranted.

In order to choose the best research method for a valid result, the difference between qualitative and quantitative research were considered. According to Blumberg et al. (2005) the difference between qualitative and quantitative research is "qualitative refers to the meaning, the definition or analogy or model or metaphor characterising something, while quantitative research assumes the meaning and refers to a measure of it. There is no good and general principle to show which research is more acceptable; therefore the researchers considered the following pertinent questions; what is the research problem? What kind of information is needed to answer the research questions? This research approach is meant to explain what the researchers experienced and perceived; as qualitative researchers concentrate on understanding how people interpret their experiences, what meaning they attribute to their experiences, and how they construct their worlds, (Merriam, 2009).

In the research of information systems, case studies are becoming more widespread and the most common qualitative method used, (Myers, 1997). Case study method is mainly to analyse an incident in its natural environment for the purpose of collecting data through direct observation, interviews, analysis of documents, etc. Case study can be defined as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used, (Yin, 1989). A case study research highlights the embeddedness of a phenomenon in its real-life context (Blumberg et al., 2005). The use of case study in research; an entity can be deeply investigated, adequate attention given to details, data is strongly real because it is based on people's experiences, generalisations are possible, and data can be attained for further research work, (Blumberg et al., 2005; Blaxter, Hughes & Tight, 2006).

The descriptive type of case study was used for this; it is used to describe the real operation and situations that led to the success of the information systems in organisations. In this regard, qualitative technique was employed to collect data. Polkinghorne (2005), alleged that the most widely used technique in the production of qualitative data is interviews with participants. With the use of this technique, primary data can be the only one which would be gathered from the people or organisations directly. By conducting face-to-face and phone interview, a better understanding of problems and the current situations about the case being studied are gained. The maximum interview time was approximately one and half hours; the time however spend interviewing one respondent varied between 60 and 90 minutes. The main disadvantage with qualitative research is that the collected data might be prejudiced. However, maximum care was exercised by the researchers to reduce this risk and ensure quality of the research result.

The sample consisted of two hundred (200) participants who are managers and employees of five banks and three insurance companies in Accra, Ghana. These employees are all involved in the operations or use of information systems in their various organization and some of them are in the IT departments of the banks and insurance companies which form the research sample-frame. This means those involved in this study use computer-based information systems to process data, update, store, communicate data/information, and maintain information relating to execution of various organisational transactions with the stakeholders. The companies sampled and used for the study, established and used information systems for at least a period of five years prior to this study so that failure or success of information systems in these organisations could be known by the users and IT workers with certainty. Participants involved in the study were encouraged to ensure objectivity and accuracy in providing data by answering questions asked in the questionnaires with highest degree of sincerity. Respondents were made to understand that participation in the study was not compulsory. This was done to

 

encourage respondents to provide data, which will be relied upon.

In the case managers, interviewed was conducted for them to collect the needed data. The interview process was systematic with the use of simple English Language to make the questions clear and understandable for the interviewees. The aim of this interview was to have comprehensive discussion with the top-level management just to collect relevant true view about the roles played by managers and the successes achieved from the use of information systems. In the interview process, some respondents were not met on one-on-one bases because of the heavy duty schedules they had. Telephone interview was however employed to reach them. In situations where data collected were not clear and cannot be analysed correctly, a follow-up cell phone calls were made to seek clarifications. Finally, the researchers visited some organizations to observe workers perform their duties just to find out issues pertaining to the workers' attitude and user-affability of the information systems. This was done to strengthen the reliability of the results of the study.

Validity and reliability are two main components used in measuring the quality or dependability of the study. Consequently, the following describes the validity and reliability of this study. Validity is concerned with the question of whether the researcher is studying the phenomenon he/she purports to be studying (McKinnon, 1988). There are two kinds of validity, namely internal and external. In terms of internal validity, it evaluates how well there is a match between the empirical findings and theory. In contrast, external validity measures the extent to which results from the measurements are coherent with the reality and whether generalisations can be drawn from the result (Ghauri & Gronhaug, 2005).

In order to maintain external validity in this research, an interview guide was created together with some questions which were asked during the interview. The summarised note prepared was sent back to the respondents for corrections and updating so that missing information could be provided. In terms of internal validity, this research focused on an open approach to maintain a high internal validity. The open approach doesn't manipulate the outcome rather, researchers keep open mind by being quiet and listening to the respondents for most of the time during the interviews. Generally, qualitative research usually has a high internal validity, rather than external validity due to the fact that external validity can be difficult to accomplish (Merriam, 1994).

Reliability is concerned with the question of whether the researcher is obtaining data on which she/he can rely (McKinnon, 1988). In the simplest terms, reliability measures the extent to which conclusions can be drawn and repeated if the research is done again (Ghauri et al., 2007). The reliability in this research is realised by using the structured research method. In addition, in order to create reliability, the respondents were made to answer the questionnaire on the day it was administered to them. No lengthy time was allowed the respondents to fill in the questionnaire and they were collected back after one hour. This did not create room for respondents to have discussions among themselves before answering the questions.

Data analysis is the process in which one processed and presented the data in a way so that it has a good structure and becomes easy to understand (Repstad, 1999). In addition, data analysis is a process of bringing order, structure and meaning to the mass of collected data (Ghauri et al, 2005). The reason for analyzing data is to come up with reliable and appropriate meaning to enable conclusions to be drawn based on the empirical data. Data analysis was based on the related theories in the implementation of information systems and the research framework which has been presented earlier in this report.

## 4.0 Results and Discussions

The first aspect of the results of the study deals with the background of the respondents. As expressed early in this research report, the respondents are workers in organizations operating activities relating to various information systems in the financial industry in Ghana. The respondents involved in this study, worked for quite considerable number of years with the use of ICT and for that matter have some experience; 61% of respondents are holders of First (Bachelor) degree, again, 29% of the workers involved in this research are holding Second (Masters) degree, and the rest 7% are holders of Third (PhD) degree, and the rest 3% hold various professional certificates. With this information, it is clearly shown that the PhD holders are at the top-level of management with some of Masters degree holders, whilst the professional certificate holder are in the middle level of management. Majority (63%) of the workers is in the middle level and top-level management position, and 37% of the respondents are at the operational level of management.

Table 1: Correlation examination involving information system success factors

| ITEMS | MANAGEMENT SUPPORT | EMPLOYEES SUPPORT | OBJECTIVES ACHIEVED | USER AFFABILITY |
|---|---|---|---|---|
| Management Support | 1.000 | | | |
| Employees Support | 0.877** | 1.000 | | |
| Objectives Achieved | 0.770** | 0.722** | 1.000 | |
| User Affability | 0.807** | 0.699** | 0.712** | 1.000 |

*Field Data collected – June 2015*

 

Table 1: as shown above depicts the relationship among four Information Systems success measures adopted in the study; management support, employees support, objectives achievement, and user affability. With the correlation analysis, the four variables mentioned above are found to be significantly correlated to each other. In general terms, the research shows that the information systems users are conversant with the job and the use of information systems.

As stated earlier, this research is carried out to establish relationship between roles management play, the attitudes of employees, and information success. The research identified five factors based on management roles and employees attitudes as seen in an organization. These factors include management IT knowledge, provision of resources, information systems goals, employees' involvement, and employees, attitudes/behaviour. Aggregated scale of Information System success was calculated using average means of four information system success measurements used in the study. The result of the correlation analysis is shown in Table 2 below:

Table 2: Correlation scrutiny involving management roles, employees' attitude and information system success

| ITEMS | MANAGEMENT SUPPORT | EMPLOYEES SUPPORT | OBJECTIVES ACHIEVED | USER Affability | IS SUCCESS |
|---|---|---|---|---|---|
| Management IT Knowledge | 0.658** | 0.681** | 0.691** | 0.256** | 0.980** |
| Provision of Resources | 0.501* | 0.486** | 0.672** | 0.211** | 0.811** |
| Information Systems Goals | 0.616** | 0.692** | 0.551** | 0.565** | 0.731** |
| Employees Involvement | 0.122** | 0.601** | 0.554** | 0.523** | 0.645** |
| Employees positive Attitudes | 0.791** | 0.692** | 0.701** | 0.683** | 0.603** |

***Correlation at significant level of 0.01 (2-tail)*

From the analysis shown above, management related factors are significantly correlated to most of information systems success measures designed by the researchers. The result of the correlation figures ascertained therefore supported all the hypotheses set to be tested by this research.

Management having knowledge in ICT and its uses is very important in successful design, and implementation, and operations of information systems. This is shown in the results of the study as the calculation revealed high positive relationship existing between management having knowledge in IT, and management providing support, employee supporting the efforts, achievement of objectives of information systems, and information system success. Even though there is positive relation between management knowledge in ICT and user affability, it is however very low at .256**. This finding is in line with the views of Black & Porter, (1996). In view of this finding, H1 is proved right and must be accepted.

H2 was supported by the findings which showed that, there is significant positive relationship existing between availability of resources needed and the success of information systems; as can be seen in the Table above; the correlation figures obtained for all the measurements are higher than 0.5 but the correlation between provision of resources and user affability is positive but low, .211**. This finding is supported by (Beath, 1991; Tait & Vessey, 1988; Wixom & Watson, 2001). This means that availability of resources impacted very much of the success of information success. Resources, both human and non human are very important in the operations of information systems.

The analysis shown above again indicates that setting good information systems goals has high positive correlation to Information systems success; this means that H3 is also supported by the result, indicating that there is significantly positive relationship between information system goals and the success of information systems. In similar way information system goal has positive and significant relationship with management support, employee support, objective achievement, and user affability. This finding is in line with the findings of (Sauneers & Jones 1992). This implies that in setting information systems goals care must be exercised to identify a positive bearing between the organizational and information systems goals.

Involvement of employees in every aspect of organisational operations has been seen to be necessary for the achievement of information systems. The results of this study show that there is higher positive relationship between employees' effective involvement in everything concerning information system operations and success of information systems. Employees' involvement also has higher positive relations with employees support, objective achievement and user affability but low relation with management support. In relation to this, the hypothesis that states that e*ffective involvement of employees in the decision making process before and after the design and during the operation of information systems positively affects the success of information systems* (H4) must be accepted**.**

*Again the study shows that there is high and positive relationship between positive attitude of employees towards the establishment and use of information systems and its success,* which implies that the study supports H5. This means that if workers accept information system that is introduced in an organization and work assiduously with the system it will definitely be successful. In similar way the workers positive

 

attitudes also have high positive relationship with the employees support, achievement of systems objectives, and user affability; all these will definitely contribute to the successful implementation and use of information systems.

Table 3: Stepwise Regression analysis of management roles on Information Systems Success

ANOVA[d]

| Model | | Sum of squares | df | Mean Square | F | sig |
|---|---|---|---|---|---|---|
| 1 | Regression | 45.235 | 1 | 44.882 | 154.782 | .000[a] |
| | Residual | 54.766 | 196 | .277 | | |
| | Total | 100.001 | 195 | | | |
| 2 | Regression | 48.923 | 2 | 26.942 | 97.268 | .000[b] |
| | Residual | 51.079 | 195 | .288 | | |
| | Total | 100.002 | 195 | | | |
| 3 | Regression | 53.107 | 3 | 20.729 | 74.623 | .000[c] |
| | Residual | 46.896 | 194 | .265 | | |
| | Total | 100.003 | 195 | | | |

a. *Predicator: (Constant), Goals definitions*
b. *Predicator: (Constant), Goals definitions, Management IT knowledge*
c. *Predicator: (Constant), Goals definitions, Management IT knowledge, supportive*
d. *Dependent Variable: Information Success*

Table 4: step- by-step Regression analysis of management roles on Information Systems Success

coefficients[a]

| Model | | Understandised Coefficients | | Standardized Coefficients | t | Sig |
|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 3.406 | .303 | | 11.472 | .000 |
| | Goal definitions | .632 | .432 | .656 | 12.432 | .000 |
| 2 | (Constant) | 1.845 | .312 | | 8.004 | .000 |
| | Goal definitions | .446 | .061 | .440 | 6.243 | .000 |
| | Management IT Knowledge | .367 | .059 | .356 | 4.906 | .000 |
| 3 | (Constant) | 1.497 | .308 | | 6.842 | .000 |
| | Goal definitions | .378 | .063 | .463 | 6.317 | .000 |
| | Management IT Knowledge | .276 | .056 | .369 | 5.869 | .000 |
| | Supportiveness | .231 | .054 | .247 | 5.195 | .000 |

a. *Dependent Variable: Information Systems Success*

Supplementary analysis of the data using step-by-step multiple regression showed interesting results indicating that good goal definition is the highest indictor of information systems success, followed by management IT Knowledge, and then supportiveness as the third one. The calculate showing this finding are shown in Table 4, above. In fact, this finding is supported by the view of Nath (1989), as he linked the success of information system to the realization of its goals. This is seen in the present day especially when information systems being established, management set objectives for the systems in specific terms. This is common with the corporate entities that employ Information Technology (Information Systems) in the operations of transactions and other business activities.

The next contributing factor to the success of Information systems is top-level management's knowledge in Information Technology, as supported by (Black & Porter, 1996). Management IT knowledge is important for the fact that management will support IT (information systems) usage in an organisation and they will be in the position to provide all the necessary resources, supports, and encouragement to employees who will work toward the success of information systems.

Lastly, the third factor that contributed to the success of information system is supportiveness. This means support from management making employees also to consciously provide support by working hard towards the achievement of information system goals. This study provided interesting results whereby we understand that corporate organizations still provide opportunity for employees to provide full support to the course of the objectives of information systems because behavior is related to users' feelings or beliefs about their systems, (Lucas & Schewe, 1976).

## 5.0 Conclusions

 

As stated earlier in this research paper, the aim of the study is to analyse the relationship between management roles and the success of information systems in organizations. Considering management roles, five main factors, management knowledge in ICT, provision of resources, development of systems goals, involvement of employees in the activities of an organization, and employees' attitudes are employed. The results of the study showed satisfactory answers to the problem.

In the first place the results established a fact that if managers have knowledge in IT, their performance and roles they play in the design, implementation and operations of information systems contribute positively to its success. Managers' roles contribute positively and significantly to the achievement of information systems goals, and employees support to the operations of the systems. This implies that managers in organizations must have knowledge in Information Technology and be able to initiate IT projects. If managers have IT knowledge, they will be able to understand pieces of advice and contributions provided by the IT directors and employees in the IT department.

Secondly, if management handles employees in the IT department and brings them on board in taking decisions affecting their department and the employment of Information Technology in the operations of business activities, they contribute positively to the successful usage of IT. Employees have to take part in formulating objectives of the IS, and they must work closely with the consultants who are employed to design Information Systems. In formulating IT budgets, employees in the IT department must be involved. It is by involving them in the every activity, they will make them ensure that the usage of the technology is successful. Highly quality, simple, achievable and well defined objectives of information system are very important in the achievement of information system goals and for that matter the organizational goals also.

The research again showed that employees' attitudes are also significant in the achievement of systems goals. Positive attitudes of employees come as a result of their involvement in the activities of the information system right from the beginning of systems development. Provision of appropriate resources enables employees to behave positively and the roles of top-level management are equally important in developing positive attitudes in employees. Management has major and crucial roles in success of information systems.

This research comes with its limitations. Due to one-way definition of information systems success – easy or user-friendliness (affability) and volume of work done by the users not considering the quality of the output of information systems is not good enough. In order to make the study relatively applicable, respondents have many years experience in the operations of information systems in the organization involved in the study. Their experiences enable them participate positively by providing true and fair data relating to the operations of information systems. Future research can look at all round definition of information system success.

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