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EFFECT OF INTEGRATED MANAGEMENT INFORMATION SYSTEMS ON SERVICES OF PRIVATE ORGANIZATIONS IN TAKORADI GHANA

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Abstract

The primary objectives of the study was to determine the impact of integrated management information system on service level in registered private organizations in Takoradi and offer suggestions to improve management information system in private organizations. Specifically, the study determined the effect on confidentiality as a result of integrated management information systems in NGOs in Takoradi, the effect on integrity as a result of integrated management information systems in NGOs in Takoradi, established the availability of the integrated management information systems in NGOs in Takoradi, and also ascertained the accessibility or integrated management information systems in NGOs in Takoradi.

The study adopted descriptive survey design. To achieve the stated objectives, data from a field of NGOs in Takoradi were collected and analysed. The research instruments used to collect data were questionnaires, A census of the whole population was carried out and the study targeted 50 registered NGOs using integrated systems. With this, the researchers were able to retrieve 35

completed questionnaires administered, representing 70 percent response rate. Statistical tools such as frequencies and percentages were used to analyse the data in order to tackle the specific research objectives.

The first objective of the study determined the effect on confidentiality as a result of integrated management information system in NGOs in Takoradi. The key findings that emerged were that:

1. Majority (82.9%) of the respondents agreed that confidentiality awareness programs are in place. However, the remaining 17.1 percent of the respondents disagreed that confidentiality awareness programs are not in place. Most of the registered NGOs operating in Takoradi have awareness programs in place in relation to confidentiality based on data retrieved from the respondents.

2. All (100%) the respondents indicated that the registered NGOs in Takoradi provides regular and structured training to its employees on confidential and policy of integrated management information system use. With this, employees of various NGOs in Takoradi can gain knowledge and experience.

3. All (100%) the respondents of the various NGOs in Takoradi agreed to the fact that there is defined process in place to coordinate the implementation of information security, measures and programs.

4. In finding out how some various aspects of the organization are properly understood, most NGOS indicated there is great integration between management and information security.

Keywords: integrated, management information systems, service, level, private, organizations

INTRODUCTION

Background of the Study

Laudon and Laudon (2002) define information system as a set of interrelated components that collect or retrieve, process, store and distribute information to support decision-making and control in an organization. Information system also refers to a collection of multiple pieces of equipment involved in the dissemination of information that may include hardware, software, computer system connections and information, information system users, and the systems housing. According to Lucey (1997), Management Information System (MIS) is a planned system of collecting, storing and disseminating data in the form of information needed to carry out the functions of management. Academically, the term MIS is commonly used to refer to the group of information management methods tied to the automation or support of human decision making. Consequently, Management Information System provides information that organizations require to manage themselves efficiently and effectively because MIS is a key to planning, controlling and decision making for management through transaction processing of systems for the data.

Integrated Management Information Systems (IMIS) denotes an expanded information system that is achieved through systems design of an improved capability by functionally more information systems, or by incorporating a portion of the functional elements of one information system into another (Rao et al., 2007). Therefore, IMIS help managers and workers to analyze

problems and visualize complex subjects because it contains information about significant people, places and things within the organization or in the environment surrounding it was a resource like any other commodities. Consequently, IMIS facilitate in tracking and monitoring at the same time control the system for the extraction of the right information through an application. And also the response of the required report for well access correlated information across the Management Information System database depended on the database and the data management system complexity of join operations and the differences between the data sources (Warkentin & Vaughn, 2006).

Traditionally, information systems may be termed "Silos" a term commonly used in literature on organizational performance to describe inwardly focused organizational units where external relationships are given insufficient attention (Cooke, 2000). Breakdowns in communication, co-operation and co-ordination between unit participants and other stakeholders, and the development of fragmented behavior, are common features. The result is that the organization falls short of making its best contribution to the needs of immediate and wider groups with an interest in the units continued good performance. Intra-organizational silos can be seen as cultural phenomena. Specifically, silo is a cultural or social phenomenon than can affect business units, teams or functions within any organization. Silo mentality, for example, creates barriers within organizations, blocking opportunities including those that might be fostered by good communication e.g. relating to innovation, creativity and efficiency, and leading to duplication and other costs (Merkow et al., 2000).

To overcome the above challenges, the concept of IMIS was being approached where by MIS design should be as per the information needs of managers at different levels. Integration of management information systems either within or between organizations continues to be a

subject of significant research and debate within academe (Rao et al., 2007). The concept of integration originates from a systems perspective: because trade-offs and wider ranging decisions can be made based on shared information and coordination, optimization of the whole system is held to achieve better performance than a string of optimized sub-systems (Lucey, 1997). Thus the IMIS style is significant because of its ability to produce more meaningful and timely information, while looking at the complete picture of the interlocking subsystems of the MIS.

Proper integrated management information system, coupled with the adoption of centralized treasury operations, can not only help developing governments gain effective control over their finances, but also enhance transparency and accountability, reducing political discretion and acting as a deterrent to corruption and fraud (Kamau, 2012).

McCumber (2005) defines service level of management information systems as a distinct set of information resources organized for the collection, processing, care, use, sharing, dissemination, of information and good quality service on the work place. Drucker (2003) stated the innovation of technology, the modification of information transform and the role of information can easily increase the performance of the work and also raises the satisfaction of the systems users. Use of information for decision making has become principal for the success of organizations.

Leeladhar (2005) states that many organizations would affirm that from playing a passive back end role in the business, integrated management information has progressively become admitted as one of the key drivers of quality service level. Today's organizations would confirm that the integrated management information is pivotal to the success of every business and is a vital strategic asset. It is the platform on which organizations communicate not only internally but also externally, that is, with other corporations.

Chesla (2004) asserts that with increased reliance on integrated management information and other technology there raises a new set of element needs which include confidentiality, integrity, availability and accessibility. He further asserts that integrated management information has improved the speed and efficiency of services and as a result has shaped the nature of the services provided to customers. According to McCumber (2005), factors which increase the performance of the system are: confidentiality, integrity, availability and the access of the system while in IMISs are well sustained that factors. Furthermore, MIS has become a vital component of any successful business and is regarded as major functional areas just like any other functional area of a business organization like marketing, finance, production and human resource. Thus it is important to understand the area of information system just like any other functional area in the business. MIS is important because all businesses have a need for information on the tasks which are to be performed. IMIS is used as a tool for solving problems and providing opportunities for increasing productivity, quality and automating the system.

Ghana compared to most other countries in sub Saharan Africa, is considered to be a stable democracy. Ghana has had five democratic elections, which have resulted in two government turnovers; both happening peacefully, In 1957, Ghana became the first African Sub Saharan country to gain independence. However, it was not until 1992 that power was returned to civilian rule. This happened under the rule of Rawlings who also won the first two elections in 1992 and 1996 (Opoku- Mensah, 2007). The role played by NGOs in Ghana cannot be over emphasized.

As part of the measures aimed at addressing the conditions of the people, and as a means to redress the imbalances between rural and urban areas in terms of development, NGOs are playing a vital role in that respect. Many NGOs are undertaking a number of activities in Agriculture, Health, Education, Science and Technology, Research and most importantly women

development. In some deprived rural areas, the only important and very common names known to the dwellers is either 31ST DMW, World Vision, Action Aid, Catholic Relief Services (CRS). Adventist Development and Relief Agency, USAID, among others because, it was the NGO that provided them with clean drinking water, the clinics in the village center, the afforestation project, credit facilities, school building, extension services and many more (Bob-Millar, 2005).

Statement of the problem

In order to optimize the value of a private organization in particular, inter organizational information sharing and coordination is invaluable. Lack of information system integration causes insufficient data sharing across all processes and activities. This can decrease the productivity of the organization dramatically (Joanbb, 2008). Managers are often overwhelmed by the abundance of these technologies in the marketplace, as they find it hard to figure out what each of these technologies do, which ones they should purchase, and how to successfully integrate them in their organizations existing routines and enhance performance.

McCumber (2005) stated that there is still a lack of understanding of the barriers to internal integration of management information system mainly on confidentiality, integrity, availability and accessibility.

In fact, the place and the impact of integrated management information system can be discussed with varied opinions observer. In spite of this, it stands out that IMIS has been touted as a game changer in the whole process of information handling and processing (McCumber, 2005; Merkow & Breithaupt, 2000). The consolidation of information and voluminous data has in itself improved transparency and quick access to such information. However, the adoption of this

facility has been slow in the NGO sector as opposed to the huge companies and institutions (Ogeto, 2004).

Integrated management information systems researchers have empirically demonstrated that IMIS investments enhance firm productivity, consumer welfare, and comparative advantage (Griffith, 1999). Further, other studies have confirmed that IMIS investments increase firms management capabilities and the managerial skills associated with acquisition management and use of integrated management information systems investments, have significant impact on business performance (Johansson, 2002). However, not enough attention has been devoted toward understanding how and why the integrated management information systems investments impact service level. Therefore, this study aims the question to answer is, what are the impacts of integrated management information systems on service level in NGOs?

Objectives of the study

The study aimed at investigating the effect of integrated management information systems on service level in NGOs in Takoradi, Ghana. The study was guided by the following specific objectives

1. Determining the effect on confidentiality as a result of integrated management information systems in NGOs in Takoradi, Ghana.

2. Determining the effect on integrity as a result of integrated management information systems in NGOs in Takoradi, Ghana.

3. Establishing the availability of the integrated management information systems in NGOs in Takoradi, Ghana.

4, Ascertaining the accessibility of integrated management information systems in NGOs in Takoradi, Ghana.

Research questions

1. What is the effect on confidentiality as a result of integrated management information systems in NGOs in Takoradi, Ghana?

2. What is the effect on integrity as a result of integrated management information systems in NGOs in Takoradi, Ghana?

3. What is the availability of the integrated management information systems in NGOs in Takoradi, Ghana?

4. What is the accessibility of integrated management information systems are in NGOs in Cape Coast, Ghana?

14 Significance of the study

The research findings will contribute to a better understanding of the impacts of integrated management information systems, This will enable focused intervention strategies and also coordinate efforts to facilitate effectiveness of integrated management information systems. Effectiveness integrated management information systems may go a long way in helping solve problems of slow service delivery, bureaucratic procedures, and communication breakdown in the construction sector by identifying the major reasons may help the industry or government to provide appropriate information and support thus enhance appropriateness of integrated management information systems. Again, this study will assist the NGOs working in Ghana to understand the importance of IMIS for their work, and also determined the values of systems confidentiality, integrity, availability and accessibility. Finally, findings from the research would

serve as a source of information and or add to the scanty literature available for other researchers who would have interest in IMIS and its related impacts on service level NGOs.

Organisation of the study

The project consists of five chapters. Chapter one focuses on the background of the study, statement of the problem, objectives of the study, research questions and significant of the study. The chapter two contains the review of available literature relevant and related to the study. Chapter three describes the methodology of the study. Issues discussed included; study design. population, sample and sampling procedure, data collection instrument and data analysis and presentation. Chapter four addresses the results and discussion of the study. Chapter five concludes the study by focusing on the summary, conclusions, recommendations and suggestions for further research.

LITERATURE REVIEW

Introduction

This chapter contains the relevant literature on the IMIS on the basis of which analysis of empirical data from the field is made which are core activities of any researcher in the social sciences and also the theoretical review of the study. The first section of this chapter dowry the

theory used by the study and the second section thus presents review of related literature in line with the objectives stipulated in the first chapter.

Information System

An information system (IS) is an organized system for collection, storage and communication of information. More specifically, it is the study of complementary networks that people and organizations use to collect, filters, and process, create and distribute data. An IS is a group of components that interact to produce information (Kroenke, 2015). Computer information system 1S a system composed of people and computers that processes or interprets information (Zwass, 2016; D'Atri, De Marco & Casalino, 2008). The term is also sometimes used in more restricted senses to refer to only the software used to run a computerized database or to refer to only a computer system. Information system is an academic study of systems with a specific reference to information and the complementary networks of hardware and software that people and organizations use to collect, filter, process, create and distribute data. An emphasis is placed on an information system having a definitive boundary, users, processors, storage, inputs, outputs and the aforementioned communication networks (Jessup and Valacich, 2008).

Any specific information systems aim to support operations, management and decision making (Bulgas, 20113).

An IS is the information and communication technology (ICT) that an organization uses, and also the way in which people interact with this technology in support of business processes (Kroenke, 2008). ISs typically include an ICT component but are not purely concerned with ICT,

focusing instead on the end use of information technology. ISs are also different from business processes. ISs help to control the performance of business processes (O'Brien, 2003). Alter (2013) argues for advantages of viewing an IS as a special type of "work system. A work system is a system in which humans or machines perform processes and activities using resources to produce specific products or services for customers. An IS is a work system whose activities are devoted to capturing, transmitting, storing, retrieving, manipulating and displaying information (Alter, 2006). As such, ISs interrelate with data systems on the one hand and activity systems on the other. An IS is a form of communications systems in which data represent and are processed as a form of social memory. An IS can also be considered a semi-formal language which supports human decision making and action. ISs are the primary focus of study for organizational informatics (Beynon-Davies, 2009).

Management Information System

The system of MIS shows that communication is needed to carry out the managerial functions and for linking the organizations with its external environment. MIS provides communication link that makes the activities and responsibilities surrounding management or managers possible (Burns, 1998). The focus in MIS coupled with improved processing as led to the reduction in 0Otlenecks attached to management process. Managers have re-organized for years so that traditional accounting information aimed at the calculation of profit have been of limited value for control. Yet in many companies, this has been virtually the only regular collected and

analyzed type of data. Managers need all kinds of non-accounting information about the external environment such as social, economic, political, and technical development.

In addition, managers need non-accounting information on internal operations. The information should be quantitative. Weihrich and Koontz (2001) defined MIS as a functional system of gathering, comparing, analyzing, and dispersing internal and external information to the enterprise in a timely, effective, and efficient manner. Santos (1991) define MIS as a planned system of collecting, processing, storing, disseminating data in the form of information needed to carry out the functions of management. It can also be a documented report of the activities planned and executed. MIS use formalized procedures to provide management at all levels in all functions with appropriate information based on the data from both internal and external sources to enable them to make timely and effective decision for planning, directing and controlling the activities for which they are responsible. An effective MIS typically employs computer and other sophisticated technology to process information that reflects the day to day operations of the company.

Based on the above, MIS is an integrated manual computer system that provides information to support the operations of managements and the decisions making functions of a company. MIS is also a collection of people, procedures and devices organized to convert data from internal and external sources into information and communicate such information in an appropriate form to management at all levels.

MS can be defined as a support to management (Kenneth and Laudon 2003). In most organizations, the MIS involves at least three systems which are likely to be the following;

Personal system- it traces flow of employees in the firm that is, those entering and leaving the firm, their pay, and even seniority location; commercial system- this traces the flow of material, sub-material and others into and out of the firms; financial system- this traces flow of money or fund into, through or out of the firm. In some organizations, the MIS is manual with units submitting reports to upper-level manager on a regular basis. In large organization many of the MIS is computerized. A MIS is a set of computer hardware and software, gathered, organized, summarized, and reported information for use by managers, customers and other users. The broad definition of MIS which includes use of information system to provide value to external customers is consistent with essence of management that is, decision making. MIS is a system approach to management that aims to continuously increase value of customers by designing and continuously improving organization process and system.

Robert (2000) explain the objectives of MIS as the provision of information to all levels management at the most appropriate time at an acceptable level of accuracy and at an economical cost, such information is used in the decision making process for modifying the state of system by taking appropriate action. An essential requirement of MIS is feedback which is the process of communicating system measured output to control system which generates effective Control system, normally a manager in respect of business system. It is these factors which allow the state of a system to be modified. Linda (2003) propose that successful implementation of MIS would possibly bring the following; possible clerical cost reduction, improved processing demonstrated by more accurate results, intangible benefits such as customer relationship and improved work environment and job satisfaction.

According to Bardhan and Whitaker (2006) information has many characteristics and can be classified in many ways. The following gives some examples of such classifications; by sources- This relates to where the origination of such information emanates. It may be internal, external, primary, secondary or government reports and so on; by nature- here, information classification is viewed in the way in which its form is being seen. It can be quantitative, qualitative, formal, or informal; by time- this type of classification focuses attention on the question e.g. when was the information produced? Or the period it is needed. It can be historical, present, or future; by use- this classification refers to the use the information can be put especially in management process, which can be planning, or control of decision making; by form- this classification explains the explicit pattern under which information is being gotten and made to flow (transfer from one location or one person to another) such information could be written, oral, visual, sensory and others.

According to Kenneth (2002) effective MIS possess numerous qualities among which are the following; relevance- this type of information characteristics is of the truth. The overriding quality information must be relevant to the problem being considered though information may take different forms. Examples are: reports, messages, tabulation and others. The positive effect it has on the problem or the needs at hand will mainly be the functions of its relevance otherwise. The absence of this quality relevant will make understanding of the message more difficult and may eventually cause frustration to the user; accuracy- information should be sufficiently accurate for it to be relied upon by those in the management team and for the purpose for which it is intended. Even though absolute accuracy may not be obtainable, yet the level of accuracy must be related to the decision level involved. Also, accuracy should not be confused with

precision. Information may be inaccurate but precise or vice-versa: time- good information is that which is communicated in time to be used. The time of regular produced information is essentially important in this regards. In fact, information should be produced at a frequency which is related to the type ot decision or actually involved; details- information should contain the least amount of details consistent with effective decision making. The level of details usually varies with the level in the organization.

Integrated Management Information System

Integrated management information systems are activities implemented with the aim to minimize the use of unnecessary, redundant resources to address the overlapping requirements of performance balancing, network management, reducing outages, system maintenance costs, and migration to new hardware and software system versions (Leeladhar, 2005).

Several management systems therefore exist in an organization for its proper running. The word integration has been used with at least four distinct meanings in the IMIS literature: a process, a condition, a system, and an end-state (Kairab, 2005). In this study, in the context of IMIS, the term integration is used in the sense of a process leading up to integrated systems. Conceptually speaking, integrated systems are systems that work together even though they never were intended to do so. Chesla (2004) research shows that success or failure of the IMIS process is not a matter of arriving at integrated MIS, but a matter of resources and time spent and how well the IMIS matches the user requirements.

MS is currently only considered after a deal is secure when the managers are left with the often extremely difficult task of integrating two fundamentally different IS environments (Chesla

METHODOLOGY

Introduction

This chapter outlines the research methodology that was employed in this study. The research methodology highlighted the overall approach taken in the research in terms of the research design, the population and the sample and sampling procedures. The chapter further explains the data collection instruments and data analysis.

Research Design

Coopers and Schindler (2003) defines research design as the blue print for the collection measurement and the analysis of data. This study used a descriptive survey design. This design was considered appropriate since the study established the impacts of integrated management information systems on service level in NGOs in Takoradi, Ghana. Also, the study proposed to consider this design since the research was designed to obtain pertinent and precise information status of the phenomena. It described data and characteristics about the population or phenomenon being studied. Descriptive designs are used in preliminary and exploratory studies to allow the researcher to gather information, summarize, present and interpret for the purpose of classification.

The descriptive survey was chosen over other research design for the study due to some peculiar characteristic that makes it more appropriate for the study. First, descriptive survey instruments are used most often to gather data because of the ease with which they can be distributed and completed (Ary, Jacobs, Soresen & Razavich, 2010). Secondly, Ary et al. (2010) believe that the

descriptive survey regarded by social scientists as the best, especially where large populations are involved. Also, Best and Kahn (2012) argue that in descriptive research, there is accurate description of activities and this goes beyond mere fact-finding. Thus, the study went beyond the what' questions to ask 'why and "how' questions in order to understand the issues. Moreover, taking into account the research questions, the rationale of the study and the population under study, it was deemed appropriate to sue this design to help to achieve the purpose to draw meaningful conclusions from the study.

Population of the study

There are registered NGOs in Ghana with varying goals and mandates. According to the Department of Social Welfare of Takoradi metropolis, there are 50 registered NGOs in Takoradi. The target population of study was the registered NGOs in Takoradi using integrated systems. The study has chosen this target population because there are reliable data relating to their background from the Department of Social Welfare. Also, another reason for choosing this population was that, they are directly involved in the study been conducted.

Sample and sampling procedures

According to Malhotra and Birks (2007), a sample is a sub-set of a population. The sample has properties which represents the whole population. Similarly, Saunders, Lewis and Thomhill (2007) refer to sample as a portion of population that is selected for investigation. Sampling is the procedure where elements or people are chosen from a population to represent the characteristics of the population. With this, a census of the whole population was carried out and

the study targeted only the registered NGOs using integrated systems. In situations where the researcher decides not to sample, the other technique that can be used is the census technique. Because of the little number of NGOs in Takoradi, the census technique was considered proper and doable since the number of NGOs was little or relatively small.

Instrument for data collection

Questionnaire to be answered by the various NGOs in Takoradi, Ghana was the sole data collection instrument used. Thus the data was collected by self-administered questionnaires and in this case, the test items were brief and clear in wording and also the items were made to be as simple to understand as possible (Cooper & Schindler, 2003). The researchers administered the questionnaire to the respondents by hand in order to ensure that the right person received it. The questionnaire was regarded proper for study since it gives a much speedier method to gather data from genuinely extensive population. Again, it is less costly, efficient and simple to build and inquiries are predictable and uniform. However, in the view of Fraenkel and Wallen (2000), questionnaire is limited to literate population and does not provide an opportunity to collect additional information. Luckily for this work, every one of the respondents were capable perused, compose and comprehend the things utilized as a part of developing the instrument.

The survey was made up of five sections (A to E). Section A was used to elicit data on the background characteristics of the respondents, Items considered includes gender, age and highest level of education. Section B, C, D and E elicited data on effects on confidentiality and integrity as a result of IMIS, availability of the IMIS and accessibility of the IMIS. The questionnaire was structured based on discrete values using closed-ended items to solicit responses on respondents'

knowledge on the issues. The responses in section B, C, D and E were measured discretely such researcher decides not to sample, the other technique that can be used is the census technique. Because of the little number of NGOs in Takoradi, the census technique was considered proper and doable since the number of NGOs was little or relatively small.

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that (1) represents the least agreement to the issues while five (5) represents the strongest agreement to the issues. Participants are likely to answer questions according to what they consider is expected of them as participants. This type of skill requires a great deal of decision-making and can take a long time to analyse the data. On the other side of the coin, it has the potential of showing the strength of the person's feelings to whatever is in the question. They are easy to analyse, easy to collect data and quick as well. Even though, closed-ended items do not give respondents room for self-expression, respondents required less effort to respond. The researchers were able to collect appropriate data from the NGOs on time and with ease.

Data Analysis

The study adopted quantitative method of analysis which made it possible to use statistical software such as the Statistical Product and Service Solution (SPSS). In order to address the specific objectives of the study, the study scrutinized the answered questionnaires to ensure that they were devoid of any irrelevant responses before feeding the computer with the data. The data analysis was conducted by using descriptive statistic. The closed-ended questionnaire items were analysed, taking cognizance of the fact that they are the basis for which conclusions and recommendations will be drawn. Analysis of the distribution indicated that the distribution was normal and the respondents are homogeneous in character. Based on this, data on background characteristics of the respondents were analysed using descriptive statistics such as frequency and percentage distribution.

Also descriptive statistics was used to analyse data on all the specific objectives of the study,

RESULTS AND DISCUSSION

Introduction

This chapter presents results and discussion of the study as set out in the research methodology. The results were presented on the impact of IMIS on service level in NGOs in Takoradi, Ghana. The data was gathered exclusively from questionnaire as the research instrument. The questionnaire was designed in line with the objectives of the study. To enhance quality of data obtained, Likert type questions were included whereby respondents indicated the extent to which the variables were practiced in a five point likerts scale. The first part of the chapter deals with the background characteristics of the respondents while the second part is devoted to the specific objectives of the study. The study targeted 50 NGOs which are using the integrated system in collecting data with regard to the impact of integrated management information systems on service level in private organizations in Takoradi. It must be noted that at the end of data collection, 35 out of 50 completed questionnaires were retrieved from respondents. This resulted in 70 percent retrieval of completed questionnaires.

Background of the respondents

In order to capture the general information of the respondents, issues such as gender, age and highest level of education were addressed in the questionnaire. This part deals in background characteristics of respondents and the data were analysed using frequency and percentage distribution. Table 4.1 presents the findings on the respondents' age range by gender.

Table 4.1 shows that 68.6 percent of the respondents were male while 31.4 percent were females. This shows that the study did not observed gender parity. The analysis carried out on age shows that 51.4 percent of the respondents were in the age group 26-30 years while a further 34.3

percent were within the age group of 31-35 years. The rest of the respondents fell within the age group of 36-40 years which represents 14.3 percent. This shows that integrated management information system users in registered NGOs in Takoradi Metropolis are in their youthful age. This may contribute highly to the progress of NGOS work force if they tend to be energetic and innovative.

Table 4.1: Age of respondents by gender

Age(Years)	Gender				Total	
	Male		Female			
	Frequency	%	Frequency	%	Frequency	%
26-30	12	34.3	6	17.1	18	51.4
31-35	9	25.7	3	8.6	12	34.3
36-40	3	8.6	2	5.7	5	14.3
Total	**24**	**68.6**	**11**	**31.4**	**35**	**100**

Source: Field work, January 2022

4.2 effect of confidentiality as a result of integrated management information system

The first objective of the study determined the effect on confidentiality as a result of integrated management information system in NGOS in Takoradi. The key areas under this objective were, comprehensive information confidentiality programs, provision of regular and structured training to the employees on confidential and policy of integrated management information system use, processes in place to coordinate the implementation of information security policy, measures and programs, and finally understanding of organization aspects on five points scale whereby respondents indicated the extent of truth of each variables.

Confidentiality awareness program is presented in table 4.3. The study aimed at determining if comprehensive information confidentiality awareness programs are in place. As shown in the table from the analysis carried out, majority (82.9%) of the respondents were in the view that confidentiality awareness programs are in place. Whereas the remaining 17.1 percent of the respondents were not of the view that confidentiality awareness programs are in place. This means that, there is confidentiality awareness program in majority (82.9%) of registered NGOS operating Takoradi.

Table 4.3: Distribution by confidentiality awareness programs

Response	Frequency	%
Yes	29	82.9
No	6	17.1
Total	**35**	**100**

Source: Field work, June 2017

Table 4.4 presents the findings on the respondents' provision of regular and structured training. The study aimed at investigating whether the organization provide regular and structured training to its employees on confidential and policy of integrated management information system use.

Table 4.4: Provision of regular and structured training

Response	Frequency	%
Yes	35	100
No	0	0
Total	35	100

Source: Field work, January 2022

As contained in the table from the analysis, all (100%) the respondents were in the view that the organization provides regular and structured training to its employees on confidential and policy of integrated management information system use. None (0%) of the respondents' were of the that the organization provides regular and structured training to its employees on confidential and policy integrated management information system use. This means that, the NGOs operating in Takoradi provides regular structured training to its employees which may intend help the employees gain more knowledge on integrated management information system use.

Information security, measures and programs of the respondents are presented in table 4.5. The research aimed at determining if there is a defined process in place to coordinate the implementation of information security, measures and programs.

Table 4.5: Information security, measures and programs

Response	Frequency	%
Yes	35	100
No	0	0

Total	35	100

Source: Field work, January 2022

As shown in the table, all (100%) the respondents agreed to the fact that there is there is defined process in place to coordinate the implementation or information security, measures and programs. None (0%) of the respondents agreed to the fact that there is defined process in place to coordinate the implementation of information security, measures and programs. This means that the registered NGOs operating in Takoradi have a declined process in place to coordinate the implementation of information security, measures and programs.

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

This chapter presents the Summary of the findings from chapter four, and also it gives the conclusions and recommendations of the study based on the objectives of the study. The first part focuses on the summary of the study and the key findings. The key findings are reported based on the objectives of the study. These are followed by the conclusions and recommendations of the study.

Summary

The primary objectives of the study was to determine the impact of integrated management information system on service level in registered private organizations in Takoradi and offer suggestions to improve management information system in private organizations. Specifically, the study determined the effect on confidentiality as a result of integrated management

information systems in NGOS in Takoradi, the effect on integrity as a result of integrated management information systems in NGOs in Takoradi, established the availability of the integrated management information systems in NGOs in Takoradi, and also ascertained the accessibility or integrated management information systems in NGOs in Takoradi.

The study adopted descriptive survey design. To achieve the stated objectives, data from a field of NGOs in Takoradi were collected and analysed. The research instruments used to survey collect data were questionnaires, A census of the whole population was carried out and the study targeted 50 registered NGOS using integrated systems. With this, the researchers were able to retrieve 55 completed questionnaires administered, representing 70 percent response are statistical tools such as frequencies and percentages were used to analyse the data in order to tackle the specific research objectives. The first Objective of the study determined the effect on confidentiality as a result of integrated management information system in NGOs in Takoradi. The key findings that emerged were that:

1. Majority (82.9%) of the respondents agreed that confidentiality awareness programs are in place. However, the remaining 17.1 percent of the respondents disagreed with confidentiality awareness programs are not in place. Most of the registered NGOs operating in Takoradi have awareness programs in place in relation to confidentiality based on data retrieved from the respondents.

2. All (100%) the respondents indicated that the registered NGOs in Takoradi provides regular and structured training to its employees on confidential and policy of integrated management

information system use. With this, employees of various NGOs in Takoradi can gain knowledge and experience.

3. All (100%) the respondents of the various NGOs in Takoradi agreed to the fact that there is defined process in place to coordinate the implementation of information security, measures and programs.

4. In finding out how some various aspects of the organization are properly understood, most NGOS indicated there is great integration between management and information security.

With this, management is able to make plans towards implementation of new technologies that is in line with the organization objectives.

The second objective of the study determined the effect on integrity as a result of integrated management information system in NGOs in Takoradi. The key findings that emerged were that:

1. In indicating whether there is comprehensive information integrity awareness programs in place, majority (82.9%) of the respondents were actually in the view that comprehensive information integrity awareness programs are set in place in there various NGOS.

2. To check how frequently NGOs operating in Takoradi does back up, all respondents said their NGOS does backup daily. The respondents object to the fact that under no circumstances their organisations doe's backup weekly, monthly or quarterly.

3. The extent of integrity of the various NGOs operating in Takoradi is seen to very high because their systems are not corrupted and there is frequent data back up in place to prevent loss of data in case the system is faulty.

The third objective of the study established the availability of the integrated management information system in NGOS in Takoradi. The key findings that emerged were that:

1. Majority (85.7%) of the respondents said their organisations deployed integrated system. The type of information that the organisations use from the study indicate that many organizations have embraced the use of integrated information system.

2. To find out whether NGOs in Takoradi have full network infrastructure in place, majority (65.7%) o1 respondents said yes that their organisations have network infrastructure.

However, the remaining 34.3 percent of respondents indicate that there is no network infrastructure in their organisation.

3. Most NGOS in Takoradi are performing better in terms of quality of internet service, network management and maintenance, system outages and many more.

The last Substantive objective of the study ascertained the accessibility of the integrated management information system in NGOs in Takoradi. The key findings that emerged werethat:1. When it comes to provision of regular and structured training to employees, majority

(88.6%) of respondents agreed that their organisations always seek to need of their employees by providing regular and structured training them on accessibility and policy of integrated management information system use. However, only few of the respondents disagreed with this point.

2. Majority (82.9%) of the respondents agreed with the view that, there is defined process in place to coordinate the implementation of information security policy, measures and programs.

3. To ascertained whether the various NGOS Operating in Takoradi have relevant user accessibility requirements policy that is specifically defined and documented, majority (88.6%) of the respondents were in support that their organisations have defined and documented the user accessibility requirements policies.

4. NGOs operating in Takoradi are very effective when it comes to interruptions to business or work processes. There are policies, procedures and guidelines in place to cater for any inconvenience. Also, they put in place intrusion detection and protection systems, user authentication systems or logical access controls which are working well and they provide also user awareness raining to their employees.

Conclusions

From the study the researchers concludes that the integration of information systems in NGOs in Takoradi has a positive impact on the confidentiality of the business affairs. This is from the fact that the organization gets to a position where it is able to safeguard its secrets maybe from competing firms who can take advantage of the situation if not well safeguarded. The study also

concludes that integration of information system in the organization brings about positive impacts among them being ensuring that the system is not corrupted, example through hacking or loss of data by embracing such activities like data backups.

From the study the researcher also conclude that, integrated management information systems at the NGOs in Takoradi is already available and the organizations are migrating to new ICTs software system versions the internet service is doing well and the fact that the system can harmonize between different parts of the organization. The study finally concludes that accessibility of the information system is well catered for by the organizations providing regular and structured training of employees on accessibility and policy of IMIS use polices procedures and guidelines are well defined, there is to great extent data encryption, user authentication systems or logical access controls (Username and password, biometrics, tokens) is already working well.

Recommendations

The study recommends that since integration management information systems has impact on service level in non-governmental organizations. The organizations should take a step ahead in management understands the information security issues, there is integration between ensuring management organization and information security, Information security is aligned with the organizations objectives to enhance strategic management. The study also recommends that data encryption, migration to new ICTs hardware and software system versions, organization to have consistent enforcement of data backup policies and standard should be employed to enhance

system security, improved confidentiality, improvement on integrity of the system and access or integrated management information systems at the NGOs.

The study further recommends that the government should take critical legislative measures in ensuring that information system are given a priority by establishment of such facilities like fiber optics, cost of acquiring the software and hard wares are kept as low as possible. The study recommends that the government should have the primary responsibility of advocating incorporation of information system organization to enhance effectiveness and efficiency in their daily operations. The study recommends that since technological changes affects the growth of enterprises to a very great extent; the government should intervene in solving the problems of unawareness of new technology, unfamiliarity with new technologies and the new technology not being affordable by maybe subsidizing on the cost of adoption.

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