FACTORS INFLUENCING IMPLEMENTATION OF BUSINESS PROCESS MANAGEMENT SYSTEMS AMONG TOUR OPERATORS IN KENYA

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ABSTRACT

This research Project was interested in the factors that have influence BPMS implementation and aimed at offering managerial guidance on avoiding pitfalls when implementing any business Process management System. Despite the advantages and challenges of tourism in Kenya, not much academic research has examined BPMS. Although a BPMS has numerous advantages, not all cases of implementation are successful, as with the case of other IT projects which record over 70% failure rate (Lewis, 2003). A questionnaire was designed to investigate this topic and the significant factors were concluded in the end. A Sample of 104 tour operators that were registered under the main tourism marketing body in Kenya (KATO) was randomly selected. According to the study findings, only 10% of the tour operators had implemented systems that met the planned schedules, goals and objectives. The analyses concluded that 67% of the implemented systems either failed to meet their objectives or were completely abandoned while 22% partially succeeded. The most widely cited factor influencing the implementation of BPMS was found to be People factors. Other factors discovered and discussed were the role of top management support, the role of a strategic implementation plan and finally information technology infrastructure factors, ranked in that order. Therefore, the recommendations for effective implementation of BPMS focused on a consideration of the cited factors especially the staff skills and training, change management and the top management team attributes. Lastly, the research recommends business stakeholders who may be eager to replace their old systems to consider all the factors cited in this research. Consequently, the researcher recommends that future research should place emphasis on the implementation process from a holistic perspective and also from other stakeholders' perspectives.

Key Words: *business process management systems, tour operators, Kenya*

Introduction

In an increasingly complex and high-cost business environment, where managers must look into multiple entities operations that involves customers, suppliers and employee relationships, the right Business Process Management Systems (BPMS) can help to minimize and rectify problems and optimize accountability, effectiveness and productivity enterprise-wide (Davenport, 1998). Business Process management (BPM) is "a systematic, structured approach to analyze, improve, control, and manage processes with the aim of improving the quality of products and services" (Elzinga et al. 1995). BPMS are business intelligent systems that are developed and designed using modern information technology to assist organizations to achieve their BPM goals and to coordinate business resources and information flows (Cui & Lui, 2010).

Developments in Information Communication Technologies (ICT) have undoubtedly changed business practices and strategies as well as industry structures (Porter, 2001). Increasingly, ICTs play a critical role for the competitiveness of tourism organizations and destinations as well as for the entire industry as a whole (WTO, 1999). Using innovative technology to create business competitiveness is both an opportunity and a challenge to existing business models.

Tourism is an important sector in the economy contributing around 9% to worldwide GDP, and over 10% of world's total jobs (World Travel & Tourism Council [WTTC] (2013). This direct contribution is set to grow by 4.4% per year over the next ten years with Africa being one of the continents to outperform world industry growth. The tourism industry can be seen as one of the first business sectors where business functions are almost exclusively done using ICT technologies (Garzotto et al. 2004).

Tourism and technological progress have been going hand in hand for years (Sheldon, 1997). Since the 1980s, ICTs and the application of business Process Management Systems have been transforming tourism globally, Poon (1993). Poon asserts that technology has a strategic role in reshaping the value chain in the Tourism industry and in the process, consumers are gradually adapting to the new values, lifestyles and new tourism products, which have been re-engineered by the new technologies.

Yves et al, (1996) asserts that Tourism has become an extremely dynamic industry that must respond quickly with flexible service configurations to significant environmental changes such as fast altering customer behaviors. The challenge to the tour operator is that travellers are far less willing to wait or put up with delays, to the point where patience is a disappearing virtue. In order to stay competitive and to keep regular customers coming and to gain new ones, Yves explains that participants in the tourist market must learn to deal with these new circumstances and develop innovative and qualitative enhancements of the overall service providing process.

Challenges in the implementation phase of any information system are prevalent in the initial application of the software, which consequently may affect the success or failure in attaining

the business goals and objectives of using the system in the first place (Heeks, 2006). Heeks' model illustrates that the implementation phase is among the last and important phase of the System development lifecycle, Figure 1.

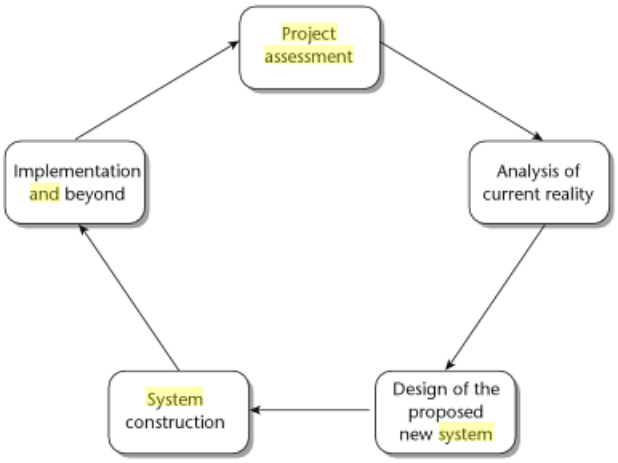


Figure 1: System development lifecycle

Source: Heeks (2006)

Implementation involves a thorough examination of the business processes in the organization; selection of the best available software solution that matches the requirements of the enterprise; configuration of the selected system, training of staff, and customization of the selected software solutions. Other steps after the implementation of the new system include monitoring and evaluating its performance and context and then undertaking any necessary system maintenance. However, Heeks (2002, 2004) points out that there are more failure stories to tell than success stories.

Ahmad & Cuenca (2013) regarded implementation of business management systems as complex, cumbersome and costly and very often, exceeded the initial estimated resources and thus it is important to have an effective plan for the implementation and an effective procedure to measure, evaluate and analyze the interrelationships of the critical factors involved in the implementation process. A factor is defined as a specific, measurable and independent element which reflects a fundamental and distinct characteristic (Pritchard and Armistead, 1999). The success factors for the implementation of BPMS will be identified from the literature and discussed under the empirical review and will form the hypothesized variables in this project paper and will be

In conclusion, it can be argued that given the great importance of BPMS and the high costs incurred in the initial purchase of the software and training of users, it is imperative for organizations to have systematic and strategic implementation procedures that take into account all the factors that might influence their successful implementation. Given the above background, this study was born in an attempt to investigate the factors influencing the implementation of TMS among tour operators in Kenya as an example of BPMS.

Problem Statement

Despite so much innovative technology available in the market to enable timely and accurate information relevant to consumers, there are prevalent paper and manual processes existing in the Tourism industry (Herrmann, 2013). Herrmann points out that even for those firms using Business Process Management System, the process of signing contracts and receiving rates from suppliers and loading those rates into the Tour Management Systems is a cumbersome endeavor for most tour operators.

The Tourism sector in Kenya contributes directly to about 2.6% of total GDP and 2.4% of total employment (WTTC, 2013). With such resilience in demand and an ability to generate high employment, the importance of Travel & Tourism as a tool for economic development and job creation is clear. Unlike durable goods, intangible tourism services cannot be physically displayed or inspected at the point of sale before purchasing. They depend exclusively upon representations and descriptions provided by the tour operator for their ability to attract consumers. Inevitably the tourism industry has been tremendously affected by the technological revolution, as information is the life-blood of the travel industry, Sheldon (1997).

Studies that have looked into the success or failure rates of BPMS implementation indicates that problems exist across a broad cross-section of industries. Key findings from Robbins-Gioia (2001) survey on ERP implementation in US companies indicate that 51% of the companies viewed their ERP implementation as unsuccessful and they were not satisfied with the implementation process. In addition, 46% noted that while their organization had a system in place or was implementing a system, they did not feel their organization understood how to use the system to improve the way they conduct business.

The rate of information system project failure remains high in comparison with other high-tech projects; with some failure rates exceeding 80%, Yeo (2002). Lewis (2003) indicates that on average, about 70% of all IT-related Management Information Systems projects fail to meet their objectives. These included defectively completed system due to cost overruns, time overruns, or did not provide all of the functionality that was originally promised.

One research study on system implementation in Kenya is a case study conducted on the implementation of the Integrated Financial Management Information System (IFMIS) in Government ministries, Karanja & Ng'ang'a (2013). For five years since the year 2005, the system was still not able to fully provide the expected benefits of integrated financial planning and control of public expenditure. The research established four factors that influence effective use of the IFIMIS systems namely: Staff resistance, Management commitment, System complexity and capacity and skills of users. The study also established that management support was lacking and top management did not inspire the user. The capacity and technical knowhow was found to be low due to lack of training and the hurried implementation of the system.

Most of research in Business Process Management systems implementation in the Tourism industry has been based on the Western developed world (Shanker, 2008). Nonetheless, such research has been based on electronic distribution systems such as Computer Reservations Systems (CRS) and Global Distribution Systems (Connor, 1999). The research study will narrow down to establish those factors that influence the implementation of BPMS among tour operators in Kenya, and particularly Tour Management System.

Main Objective

The main objective of this study is to assess the factors that influence the implementation of Business Process Management Systems used by Tour operators in Kenya.

Specific Objectives

1. To determine the influence of Strategic Planning on the implementation of Business Process Management Systems in Kenya
2. To assess whether top management support influences BPMS implementation among tour operators in Kenya.
3. To establish the influence of Information Technology Infrastructure on BPMS implementation process.
4. To examine the influence of People factors on the implementation of BPMS process.

Theoretical Review

Two theories will be used to explain the variables in the study of BPMS and consequently the factors affecting its implementation. These are the Contingency theory and Porters theory of competitive advantage. These theories have been selected out of the evidence that the success or failure of information system is due to a lack of 'fit' between multiple factors in the business environment and therefore organizations must effectively align their strategy with the competitive environment if they are to perform effectively (Morton, 1991).

Contingency Theory

Contingency theory contends that there is no single blueprint for success and failure in organizational change (Fiedler, 1964). Contingency theory variables of environment; technology, structure, and management effectiveness has helped advance the study of important topics which include system planning, Management Information system implementation, performance, user involvement and Internet adoption. According to Contingency theory, there are situation-specific factors for each system implementation. A proper 'fit' between the tasks in the business processes and information technology must exist and therefore BPMS should enable the execution of a firm's strategy. There is need for one or more different dimensions of organizations to be brought into congruence and this includes Technology, Structures, people and processes (Leavitt, 1965)

Perhaps the most comprehensive model for evaluating information systems implementation derived from the Contingency theory is the "Design– Actuality Gap" model by Heeks (2002) as illustrated in figure 2.1 below. The design-actuality gap model assessed the gap between an intended future and the current actuality of an organization and came up with seven dominant dimensions: information (data stores, data flows, etc.); technology (both hardware and software); processes (the activities of users and others); objectives and values (the key dimension, through which factors such as culture and politics are manifest); staffing and skills (both the quantitative and qualitative aspects of competencies); management systems and structures; and other resources (particularly time and money).

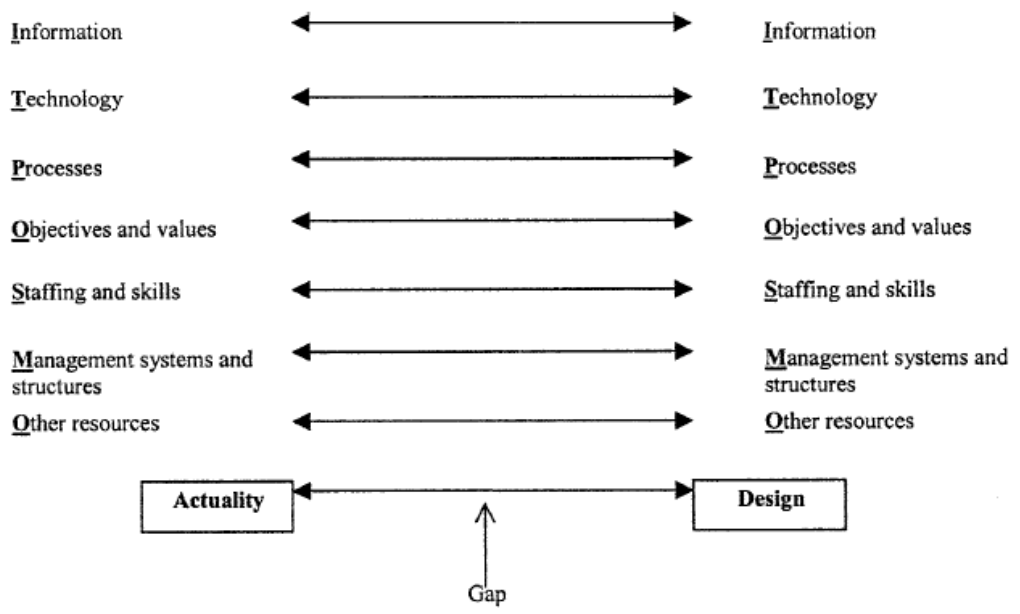


Figure 2: Design-Actuality Gap Model

Source: Heeks (2002)

In addition, Heeks (2006) present evidence that the physical remoteness of designers of BPMS in developing countries (most of who are from developed countries) means that their contextual inscriptions are liable to be significantly different from local users' reality. This means the actuality of local conditions in a country like Kenya will not have been considered at all in the original design, and a considerable gap is likely to lead to a significant risk of failure in the implementation of the system.

Porter's Theory of Competitive Advantage

The study will also engage Michael Porter's Five Forces of Competitive position theory to discuss and make meaning in the findings of the study. Porter emphasizes that Competitive advantage occurs when an organization acquires or develops an attribute or combination of attributes that allows it to outperform its competitors (Porter, 2004). The five forces of competition championed by Porter are: Existing competitive rivalry between firms; Threat of

new market entrants; Bargaining Power of buyers; Bargaining Power of suppliers; and Threat of substitute products (including technology change).

Porter (1985) argued that information (and IT) gave competitive advantage. Considering his Model, information systems affect each of the five forces; the available entry and exit barriers determine threats of new entrants. Roy (2009) argues that the threat to new entrants is high when: Capital requirements to start the business are less; there is a low switching cost to the new products from the new firm; when there are fewer economies of scale already established; when it is easier to acquire key resources like technology; and when available firms have few differentiations on the products available. A new entrant into the market threatens the available players through effective use of new Information Technology or BPMS.

For instance, a tour operator can create a barrier to entry into the industry by employing high-cost yet effective BPMS to offer the most innovative products. Rival competition is eventuality reduced through the new and differentiated product and integrated travel packages. Using innovative technology to create business competitiveness is both an opportunity and a challenge to existing business models. Strassmann (1990) suggests that despite the potential benefits, BPMS by themselves are unlikely to lead to competitive advantage but the organization might be more productive, and consumers might capture more value from the products and services produced by the organization. The same scenario is often attributed to the lack of long term Information Systems' planning and strategy, innovative business processes re-engineering, top management commitment, and training throughout the hierarchy.

Empirical Review on Business Process Management Systems (BPMS)

Majority of past BPMS literature is published under general Business or information Systems literature. Two bodies of literature exist; the general literature on IS failure (Hirschheim, 1986, Lewis, 2003), and the specific literature on IS failure in developing countries (Heeks, 2001; 2002; 2006; Ahmad, 2013). Hence, databases that were dedicated to these disciplines were used as the primary sources for extracting past literature articles that have been published.

The history of BPMS can be traced to the mid-Nineties when major consulting companies offered Business Process Reengineering (BPR) methodologies which were systematically designed to structure process change and consulting engagements (Harmon, 2007). At the same time, a variety of software vendors, who were initially Computer Aided Software Engineering (CASE) vendors then evolved into process analysis and design vendors, began to offer process analysis methodologies which were designed to work in conjunction with a software product.

Despite BPR being eagerly embraced by many organizations, it failed to deliver the expected results, according to writers such as Hammer (1990) and Davenport (1993). In the course of the Nineties, software methodologies evolved, ERP applications (such as SAP, PeopleSoft,

Oracle) were widely adopted. Initially, the vendors created a variety of diagrams to show how the ERP applications could support business processes. However, according to Davenport & Stoddard (1994), exclusive reliance upon ERP and IT Systems specialists to improve organizational processes led to failed initiatives, and they stressed the importance of a more inclusive enterprise-wide approach to process change.

Ahmad & Cuenca (2013) research study on in ERP implementation presented a detailed BPMS framework of the means of achieving success in Business Process Management. The framework included nine success factors namely culture, leadership, communication, Information Technology, Strategic alignment, people, project management, performance measurement and methodology. The success factors were classified into two groups, one group consisting of elements that already exist in an organization and the other group including those factors that can be considered and controlled during a system implementation.

The rapid development of both supply and demand makes BPMS increasingly play a more critical role in tourism marketing, distribution, promotion and co-ordination. However, most Research studies in Tourism attempts to provide an overview of innovative developments in distribution of travel and tourism services. Inkpen (1998) and Sheldon (1997) examined the main characteristics of the industry and ICTs applications in different sectors like airlines, hotels, tour operators, road and rail transport etc. with informative case studies. Connor's (1999) work serves as a text book on electronic distribution analysis cases from across the western world. He examines some of the world's largest Computer Reservations Systems (CRS) and GDS (Global Distribution Systems) namely Amadeus, Galileo, Sabre and WorldSpan. Buhalis (1998) observes that ITs have a dramatic impact on the travel industry, and can also boost staff morale, managerial effectiveness, productivity and ultimately profitability of tourism organisations.

Conceptual Framework

Based on extensive literature review, four factors have been identified which are perceived as covering and characterizing BPMS implementation but this study will focus on four factors as outlined in the conceptual framework. This is because the study will particularly investigate the factors influencing implementation of Tour Management systems which are the most popular among Tour Operators in Kenya and will form the basis of the independent variables of this study.

Strategic Planning and BPMS Implementation

In order to reach long-term success and improved performance, BPMS must be linked to organizational strategy. Lack of Proactive implementation of BPMS as part of business strategy has been found to be one of the main reasons for failures (Bandara et al. 2009). Everything should start with a strategy because it guides an orientation for business

development. Gaining a long-term and sustainable competitive advantage usually requires a specific business strategy.

Strategy formulation involves a series of steps that goes from initial analysis through development and on to implementation. The concluding step of strategy formulation is to engage and execute the strategy. This step involves setting the strategy in motion and guiding it through to fruition. It involves communicating the strategy to stakeholders, executing detailed plans, and risk management, as well as continuous monitoring of progress and adjusting of approach.

Budges (2002) identifies the theory that an Enterprise can implement a system through five steps; Pre-implementation, analysis, design, construction and implementation. The pre-implementation planning helps to identify the operational needs, business drivers, strategic plans and other factors that will define the scope and objective of the system solution. The implementation phase prepares for the final deployment or the go-live after which a post implementation audit is performed to measure the effectiveness of the system in meeting its goals and objectives. Input factors such as the presence or absence of an overall business strategic plan, a system pre-implementation plan and proper communication channels for the plan are the factors that will be studied in this project.

Top Management Support

Zairi (1997) says that the start of any improvement process is top management leadership. High power of senior management can make an effective start and lead implementation. Existing literature specifically recognized the vital role of leadership in BPM efforts and the role of leadership in driving, monitoring and controlling activities related to change (Ahmad, 2013). Both Top management and middle managers should actively participate in setting the vision of BPM initiatives.

The vision should have a holistic view and consider employees' aspects and activities because besides affecting task accomplishment, an information system can also affect its users' quality of working life and their physical and mental health (Hirschheim 1986; Kraut et al. 1989). Research has found associations between the characteristics of work and the incidence of heart disease, peptic ulcers, arthritis, psychosomatic illness, alienation, and suicide among employees. In many countries, the direct and indirect costs of employee ill health are substantial (Greenberg et al. 1995)

Implementing a system requires an organization and the system designer to carry out a change management process. Corrigan (1996) stresses a more employee, team oriented approach to BPMS implementation. Corrigan comments that 'culture change has proved to be one of the most intractable aspects of BPM' and that 'resistance to change has been identified as a major barrier' with 'threats to individuals' jobs, the increase in short-term contracts, and lack of promotion prospects' having been identified. Suffice to say, for a system and software to be successfully implementation, change management is one of the dynamics that have to

be considered seriously and this includes all staff of the company, those directly or indirectly affected by the system

Information Technology infrastructure

Information technology infrastructure is the integrated framework upon which digital networks operate. This infrastructure includes computers, computer networks, Database Management devices, interconnecting hardware and software, data transmission medium including routers, and a regulatory system (Turban et al, 2007). Information Technology tools and infrastructure can be an obstacle for implementing a BPM (Ahmad, 2013). IT department capabilities should be sufficient for supporting the implementing process.

Corrigan (1996) asserts that before a BPMS can be successfully introduced, "a number of strategic, team and technical skills are required" and if implemented correctly and with effective use of information Technology, it stilts significance advancements of organizations' performance. There is little doubt that whilst it is recognized that relevant IT infrastructure should be in place before introducing BPMS, many companies are still implementing the concept without the core competencies in place.

People Factors

People are one of the most important elements in the business process management since they have to be encouraged to agree with change and if not, resistance would emerge (Paper and Chang, 2005). Employees should be involved in the implementing process by soliciting their view and opinions and being involved in some of the activities that relate to their daily duties such as process mapping. Proper communication should be prepared for dealing with organizational resistance during a system implementation.

In addition, people should learn how to use the new system and integrate their work to other efforts to achieve process outcome. Ahmad (2013) emphasizes that suitable training on the BPMS should be carried out. The necessary skills needed to perform the new job responsibilities should be provided to the employees; as a consequence, thorough job analysis of the workforce should be undertaken.

Efficiency of Implementation of BPMS

Bandara et al. (2009) proposes a very general definition of success; a BPMS is successful if it continuously meets pre-determined goals, both within a single project scope and over a longer period of time. Unfortunately, little consensus exists on what constitute the goals of organizational effectiveness. Steers (1999) in his literature review on organizational effectiveness found that many different types of indicators had been used to measure goal accomplishment. They included measures of profitability, growth, turnover, absenteeism, job satisfaction, stability, flexibility, morale and readiness. It is sometimes difficult to identify where the benefits and costs from implementing an information system have occurred.

Armistead et al. (1997) advocated for BPM as an approach that "presents a more comprehensive array of improvement options". They go on to say that under a process management structure, business owners, teams, and job performers are thinkers and doers as they design their work, inspect their outputs, and redesign work systems to secure improvements" and "teams are now more responsible for meeting customers' requirements, reducing cycle time, lowering costs, and improving the consistency of their outputs". Other indicators of effective implementation of BPMS include little employee turnover, and employees' personal and career growth (Ahmad & Cuenca, 2013).

In Kenya, tour operators who are members of KATO are classified into three different categories of membership; Associate members with a minimum of one year, full members and affiliate members. The full members are ranked depending on the operator's annual gross earnings from category A which consists of Operators with the highest gross turnover to Category E with the lowest. Tour operators upgrade their membership depending on their growth and expansion hence this will forms a good measure of performance. Success indicators include high Growth over the years from a lower Category to a higher one, high job satisfaction, morale and readiness, less employee turnover. Failure indicators include employee turnover, absenteeism, low profitability and little growth, low employee morale.

Research Methodology

Research design

Research design is the structure of research for fulfilling research objectives and answering the research questions (Kombo & Tromp, 2006). A descriptive research design was adopted in this study. According to Burns and Grove (2003), descriptive research "is designed to provide a picture of a situation as it naturally happens". It is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals and may be used to explain or justify current practice and make judgment. A descriptive research design was selected because of its versatility across many disciplines (Gray, 2004). It gives the researcher an opportunity for considering many different aspects of the problem and to accurately describe the association between variables, as well as minimize bias and maximize the reliability of the data collected and analyzed.

Target Population

This is a group of individuals, objects or items from which samples are taken for measurement (Kombo & Tromp, 2006). The research was carried out on registered Tour operators who are members Kenya Association of Tour Operators. The population under study constitutes 405 Tour operators in Kenya (KATO, 2013).

Sampling Frame

The sampling frame is also known as the source list and refers to the number of items to be collected from the universe to constitute a sample (Kothari, 2008). The sampling frame of the study was Senior employees of the Tour operators who are registered members of KATO and with offices in Nairobi County. The Sampling Frame was chosen due to the huge number of tour operators in Kenya, some of them with offices in remote parts of the country.

Data Collection instruments and methods

Two kinds of data were collected, Primary data that was collected by the researcher and. The Secondary data, also called existing knowledge, was collected from the KATO online web page which clearly spells out all the registered members, their contacts and Category. Primary data on the other hand was collected by the researcher using a questionnaire as the instrument of data collection and was administered to the selected employees of the Tour operators. Both open ended and closed questions were used to collect both qualitative and quantitative data required. The data was collected using a self-administered questionnaire procedure, where the questionnaires were administered to the selected respondents through drop and pick later technique. This gave the respondents enough time to fill the questionnaire.

Sample and Sampling technique

Sampling technique is a definite plan for obtaining sample from a given population (Kothari, 2008). The researcher used Probability sampling technique using simple random sampling to select the sample from a list of tour operators with offices in Nairobi County. Random sampling ensures every unit has an equal chance to be a member of the sample and is known to be less biased. This method was used because it has the ability to represent the population and according to Cohen 2001, it enables the researcher to gather sufficient details and enhance reliability of study. The objective of this study was to get the maximum unbiased representations of all tour operators in Kenya. The sample size study constituted 30% of the population (405 x 0.3 = 122) and will consisted of 122 tour operators. This was an appropriate size because according to (Easterby-Smith et al, 2008), such a sample size allows a researcher to get results that reflect the target population at 95% Confidence level. A Sample Size Calculator was used to calculate this sample size at a Confidence interval of 8. Only one respondent was contacted from each tour operator translating into 122 respondents.

Pre-Testing Instruments

Pilot testing was done initially to detect the weakness of the instrument. According to Mugenda and Mugenda (2003), a successful pilot study will use between 1% - 10% of the actual sample size. The purpose of this was to ensure consistency and coherence of the questions. In this pilot testing, 4% of the sample size were used. Piloting of the questionnaires was be done in Four (4) Tour operator Companies. Errors detected during pre-

test were corrected before any further administration. In order to ensure the reliability of the responses, it was necessary to make sure that the respondents who received the questionnaire were familiar with BPMS. Only senior level staff were consulted and an explanation was given when requested.

Data Analysis Methods and Presentation

Data analysis involves scrutinizing the acquired information and making deductions (Burns & Grove, 2003). Primary data which was collected through questionnaires which were analyzed using descriptive statistics. The data was then coded to convert it to numerical information. The data was analyzed using Statistical Package for Social Sciences (SPSS) and presented using tables, charts, graphs and statistics so that the big picture wass clear in one snap shot view. Using descriptive tools helped to express the views of employees of the tour companies and show the relationships between variables. The tools also helped to conceptualize the challenges that are prevalent in implementation of BPMS, which consequently may affect the success or failure in attaining the business goals and objectives of using the system. Correlation analysis was used to show the strength of the relationship between the variables mentioned in the conceptual framework of this study. Reliability and validity of the research was achieved through using only reliable resources for both Secondary and Primary data. The KATO web site was used to authenticate the member companies and their Category. For Primary data, the researcher ensured the questionnaires were easy to understand and simple to answer, questions were clear, understandable and did not lead a respondent to provide any biased feedback. Data entry in SPSS was made with good care so that human errors were minimized. The researcher also made sure that respondents and concerned organization were aware of the purpose of the research and respondents were asked their consent about filling the questionnaires and are morally motivated enough to provide the right information with seriousness required.

Research Findings and Discussion

Over the years, organizations have adopted new technology in order to improve the financial performance, productivity and the profitability of their companies. One method of improving profitability is to focus on a strategy that improves productivity by streamlining processes and reducing the costs of business activities in the firm. Implementation of BPMS is one such method and a research on the factors influencing the process is a valuable step towards enhancing chances of implementation success. However, several studies have demonstrated the failure rates are relatively high and could even lead to bankruptcy (Lewis, 2003). The main objective of the research study was to investigate the particular factors that influence the implementation of BPMS in the Tour operator Industry in Kenya. The sample included 122 Tour operators randomly drawn from all the 450 members of the main Tourism marketing body, KATO.

Influence of People Factors

The most significant finding of the factors that affect the implementation of BPMS is the people factors; mostly the lack of skilled personnel who can effectively handle the Systems , and hence it was the most widely cited factor. Yeo (2002) echoed the need for troubleshooting skills as an ongoing requirement for the implementation process. A significant number of respondents made reference to the need to include adequate training of a System as a critical aspect of an implementation. The training should encompass the development of IT skills and data conversion. The success of the system relies on the ability to ensure data accuracy during the conversion process (Xu et al, 2004). System implementation comes with a need to restructure the staff, perform a job redesign and sometimes create new job positions such as that of a system administrator

Influence of Top Management support

Top management commitment and support refers to the need to have committed leadership at the top management level that can anticipate any glitches that might be encountered and who should be technically oriented (Hill, 2010). It is also refers to the need for senior management to involve the staff and especially prospective users in the roll out of the new system. Management should take responsibility of the implementation system and provide the much needed guidelines, opinions and boundaries. Certain processes are difficult to translate into an automated system; the staff needs authority from the top management to change the format of doing certain processes

Influence of Strategic Planning

Another role of top management is in the initial strategic planning, but this was found to be the case in majority of the tour operators companies which are individually or family owned and only absent large and medium companies, hence the least cited factor. Most of the respondents reported that many systems were implemented hurriedly and this led to staff resistance. Part of the strategic planning is the preparation of a change management program with a step by step plan of when the system should fully “go live”. This should be once the user acceptance has been fully built and there is positive employee attitude (Hooshang and Beheshti, 2010).

Goals should also be measurable; planning should incorporate a certain degree of risk and should be reflective of tasks to be accomplished (Morton, 1991); and finally, the planning should involve benchmarking internal and external best practices for BPMS implementation. Several researchers have iterated the need to address the implementation strategy and to, specifically, implement the BPMS under a phased approach.

Influence of information Technology Infrastructure

The influence of IT infrastructure was assessed by analyzing indicators such as the IT specification & requirements, the resources adequacy and the IT readiness of the organizations in question. The need to conduct system requirements and specification was the fourth most commonly cited factor. Matching of the system goals with the IT infrastructure requirements requires proper Communication among various levels in the organization, especially between IT personnel and the tour consultants and other users is important. Special consideration includes the need to plan technology infrastructure and assess the IT readiness of the organization, including the architecture and skills. Many respondents reported that most BPMS vendors did not explain the embedded IT requirements and this caused many systems to stall or the organization forced to upgrade or revamp their IT infrastructure; something that was not initially in their budget.

Efficiency of BPMS Implementation

Productivity is generally considered to be the efficient utilization of organizational resources and is measured in terms of the efficiency of a worker or company. 47% of the participants indicated either they had or were in the process of implementing a BPMS. Out of these, the majority of the respondents (67%) reported that they perceived their BPMS implementation was unsuccessful or did not meet all the set objectives. 22% of the respondents perceived that their systems to be partially successful while just a minority (10%) considered their systems a full success. The findings support conclusion by researchers that approximately 70% of business process management systems fail (Heeks, 2001).

Conclusions

One of the strongest arguments for introducing a business process management system is that it will increase the efficiency of a firm. Not only is the work produced under business process management systems more efficient, it is also less likely to have errors. This can create substantial savings for a firm. This research study established that in spite of the numerous advantages of BPMS in the tour operator industry, their implementation is packed with challenges and therefore an organization needs to consider various factors to ensure a more efficient implementation process. The findings support conclusions by majority of the researchers that the greatest factor in the implementation process is the people factors (Yeo, 2002). The other three factors is the influence of top management support, the strategic planning and the management of Information Technology infrastructure.

Finally, while people factors appear to emerge as one of two most widely cited factors, there still appear to be much variance with respect to what exactly is encompassed by the construct and what specific staff management tactics would work.

Recommendations

The findings implied that the four independent variables are factors that strongly influence the implementation of BPMS but they are not the only ones, as revealed by the qualitative data and other suggestions by the respondents. In light of these findings, the researcher suggests three recommendations. The first recommendation is for managers in the tourism industry who should take into consideration the established factors before the implementation of any business process management and take the appropriate actions. First of all there should be a comprehensive phased strategic plan which takes into account all the people factors and a change management procedure. The top management should provide all the necessary support and commitment toward the achievement of the system goals and objectives and should ensure that the organization is ready with the specified IT infrastructure.

The second recommendation is for system developers who should bridge the design- actuality gap as has been shown in the theoretical model and evidenced in the data. The last recommendation is for educators to augment the practical training on aspects related to business process management systems so that Students can be readily equipped for the job market.

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