

THE NEXUS BETWEEN ORGANIZATIONAL CULTURE AND TOP MANAGEMENT SUPPORT AS AN INFLUENCE TO THE ADOPTION OF INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) IN THE RWANDAN COMMERCIAL BANKS

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ABSTRACT

Although Information and Communication Technology (ICT) provides enormous opportunities such as storing, processing, retrieving, disseminating and sharing of information, its use within the banks in developing countries is still plagued with many problems that hinder effective and efficient management (Apulu & Latham, 2009). The researchers suggest that organizational culture and top management support play a key role in achieving a useful implementation of new technologies. Data was collected through a self-constructed and statistically validated questionnaire, thus five commercial banks were used for the research. A sample size of 274 employees of different managerial positions was used for the study. Of the 274 respondents 25 held managerial positions while 249 were regular employees. Stratified sampling technique was adopted to sample the employees in each department from the various banks headquarters, and the random sampling technique was used to administer the questionnaires to the respondents. A total of 353 questionnaires were distributed and 274 usable questionnaires were retrieved and utilized for the statistical analysis. The statistical results indicate that management support and organizational culture had perceived and significant influence on ICT adoption/usage among the surveyed commercial banks in Rwanda.

KEYWORDS

Organizational culture; Innovation, Adoption, Culture, Information and Communication Technologies.

INTRODUCTION

The rapid advancement in electronic distribution channels has produced tremendous changes in the financial industry in recent years, with an increasing rate of change in technology, competition among players and consumer needs (Kaleem & Ahmad, 2008). The use of electronic banking technologies (e-banking) such as Automated Teller Machines (ATMs), Tele-banking, home banking and internet banking, in the delivery of banking products and services has increasingly become an essential aspect of contemporary banking systems (Abukhzam & Lee, 2010). Most banks consider the adoption of e-banking technology as a means to improve efficiency and performance, and service quality. Banks and other businesses alike are turning to Information Technology (IT) to improve business efficiency, service quality and attract new customers. (Thulani & Tofara, 2009).

Forms of electronic innovations that have found their way into the Rwandan banks are Electronic Funds Transfer Systems (EFT), Telephone banking, Personal Computer (PC) banking and recently internet banking. These have released banks from the constraints of time and geographical location (Kass, 1994 cited by Goi, 2005) and has allowed banks to cut costs on transactions, improve their service delivery, and respond better to the demands of the market (Chang, 2003 and Sullivan and Wang, 2005). There has been a proliferation of electronic banking systems over the years, especially in developed countries where it is driving economies closer to cashless society as it removes the need for tangible currency (cash) and physical payment systems and replacing them with cards (plastic money) and internet (digital money). However the adoption of this innovation has remained sluggish despite the convenience it brings to the customers and the banks.

Contextually, ICTs and its hype are more than just computers and the internet. ICT encompasses the information that businesses create and use, as well as the wide spectrum of increasingly convergent (Moore, 2004; Brown and Licker, 2007; and Gibbs, Sequeira and White, 2007) and linked technologies that process the information (Rogers, 2004; Moore, 2004 and Barba, Pilar & Jimenez, 2007). Therefore, ICTs should be viewed as a collective term for a wide range of software, hardware, telecommunications and information management techniques (Davis, 1993; Afuah, 2003; and Zappala and Gray, 2006), applications and other devices that are used to create, produce, analyze, process, package, distribute, receive, retrieve, store and transform information (Shavinina, 2003 and Barba, Pilar & Jimenez, 2007). While the understanding appears comprehensive, how the psychology of adopters that categorically shapes the choice of adoption/usage decision is divergent.

While literature is abounding with studies conducted mostly in the developed world, in the Rwandan context this area is underrepresented as no studies to the best knowledge of the authors have been conducted in this area. It is against this background that this research takes a thrust and endeavors to the roles of ICTs organizational culture and top management support towards adoption/usage decision in Rwandan commercial banks. The research highlights the principal determinants of ICT adoption/usage and investigated accordingly. The work is divided into sections with the foregoing introduction, followed by the theoretical and related literature review, methodology design, data analysis, interpretation and discussions, and the conclusion respectively.

THEORETICAL AND RELATED LITERATURE REVIEW

TOP MANAGEMENT SUPPORTS INFLUENCE TO ICT ADOPTION

Managers cannot ignore information Systems because they play a critical role in contemporary organizations. Ayodeji & Oyesola, (2008) contend that the most significant shortcoming in the banking industry today is a wide spread failure on the part of senior management in banks to grasp the importance of technology and incorporate it into their strategic plans accordingly. Consequently, they believe that financial service providers should modify their traditional operating practices to remain viable in the industry. The application of information and communication technology concepts, techniques, policies and implementation strategies to banking services has become a subject of fundamental importance and concerns to all banks and indeed a prerequisite for local and global competitiveness (Obasan, 2011).

Top management attitudes play a vital role towards the adoption of ICT in organisations. This position is supported by Chuang, Nakatani, & Show, (2009) who indicate that top management perspectives and attitudes toward IT adoption explain different levels of success of IT adoption, Apulu & Latham, (2009) argue that an enthusiastic approach on the part of top managers can lead to the adoption of ICT, and (Ghobakhloo, Sabouri, Hong, & Zulkifli, 2011; Thulani, Tofara, & Langton, 2009) cements this argument by indicating that IT adoption process is directly affected by top management where all decisions from daily functions to future investments are made by them.

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A number of studies have revealed that, the role of CEOs (top management or owner/manager) is central to enterprise since their decision influences all firms' activities, both in current and in future. This also refers to IT adoption decision from planning stage to the implementation, maintaining, and system upgrade stages. In addition, positive attitude of top management toward using IT (as the users of IT in SMEs) will result in IT acceptance and subsequently success in organizations (Nguyen, 2009).

Mpofu, Milne, & Mathys, (2008) indicated that the change agents for ICT adoption at organizational level may include the support and attitude of key decision makers such as owner managers and chief executive officers (CEO). IT adoption process is directly affected by top management where all decisions from daily functions to future investments are made by them (Ghobakhloo, Sabouri, Hong, & Zulkifli, 2011) these key decision-makers have a vital role to play in purchasing, planning and ICT adoption decisions in small business. They are, therefore, expected to have the capacity to respond accordingly to the changing needs of a dynamic e-business environment. According to Idisemi & Latham, (2009) an enthusiastic approach on the part of top managers can lead to the adoption of ICT.

Williams and Kinicki (2003), argue that top management characteristics and top management support of an innovation could lead to early, late, faster or slower rate of adoption. In similar perspective, Mpofu (2006), asserts that top management characteristics; CEO knowledge of ICT, CEO values, and CEO attitude towards an innovation influence significantly the adoption of ICT, and further, Walker and Peansupap (2005), emphasizes that an organization's top management commitment to support and allocate resources for ICT technology investment influences adoption.

Walker and Peansupap (2005), indicate that strong top management commitment to ICT adoption leads to early adoption, while lack of top management commitment inhibited adoption. In the research conducted by Castel, Salvador and Sanz (2010), on the lodging industry, they found out that the manager's attitudes play an important role to the company's innovation, development or acquisition, since the managers control and monitor all the decision making process.

In his paper Muinde (2009), stresses the need for a change manager, to use a participatory change management style if change that is being promoted is to succeed. The study argues that even though it is sometimes necessary to use hierarchical authority to impose change automatically, it seems in most cases, that ICT adoption is more effective when a participatory leadership style is adopted and staff are informed about the change, encouraged to adopt a positive attitude towards it and involved in implementing it.

Management's critical role in the adoption of innovations was seriously emphasized in the paper presented by Tarofder, Marthandan, and Haque (2010), which indicates that most innovations interrupt existing systems and practices, which leads to a reluctance to change on the part of organizational members. Thus management plays an important role in facilitating the championship of innovation adoption. The research further contends that, when management shows a favorable attitude towards an innovation, the whole organization will be more likely to devote resources to, and show willingness towards, making the adoption successful.

The study of Tarofder, Marthandan, and Haque (2010), further contends that, the basic requirement for ICT adoption is the need to directly or indirectly persuade users to commit and involve themselves in the use of ICT. It indicates that top management also needs to be committed to support and allocate adequate resources for ICT technology investment. Kamal & Marinos (2005), reports that even in cases where ICT managers initiate the adoption of new technologies, support from top management may play a significant role in whether innovation efforts are frustrated or completed. He further indicates that support from top management can be achieved through:

1. **Resources mobilization.** Adopting of new information and communication technologies require large amounts of investments, and therefore to implement ICT innovations, top management is expected to take the risk of the failure or delay of ICT adoption. As Kamal (2006) indicates, top management need to have a risk-taking tendency to support ICT managers to design and implement an ICT adoption plan without worrying of the consequences.
2. **Top management knowledge of ICT.** It is clear as indicated by Kamal (2006), that top managers who are knowledgeable about the potential of ICT, are more likely to have a positive and clear attitude towards the adoption of ICT in the organizations, and to the initiatives raised by ICT managers.

The availability of technical personnel with rare competencies to produce new ideas is one among other significant factors for ICT innovation adoption. This assumption rests on the precept that innovations are most likely to be proposed by personnel who have expertise in this particular discipline. In light of this, Kamal (2006) opts that ICT innovation starts from ingenious applications devised by managers with a technical background.

Managerial capability in relation to their ability to identify problems of the current system and to develop and evaluate alternatives to improve the ICT capacity of the organization is a decisive factor that influences ICT adoption. These are also supported by Ghobakhloo, Sabouri, Hong, & Zulkifli, (2011), who argue that CEO's IT knowledge and experience of IT is a trait affecting IT adoption in many organizations, they further demonstrate that small businesses with CEOs who are more knowledgeable about ICT are more probable to adopt ICT. They discussed that greater knowledge of CEOs will reduce the degree of uncertainty entangled with IT which will result in lower risk of IT adoption. Moreover, Idisemi & Latham, (2009) found that in a number of organizations, CEOs with higher levels of computing skills are more satisfied with the implemented of IS rather than those having inferior skills while based on the literature, satisfaction with IS/ICT is one of the most applied measures of IT success in organizations. These views are consistent with the findings of other studies which found that sufficient knowledge of IT and its consequent influences over organization could be provocative and supportive for IT adoption in organizations (Aziz, Sulkifli, & Ghobakhloo, 2010).

Another influencing factor attributable to the top management characteristics is CEO innovativeness, both in general and IT-specific terms (Ghobakhloo, Sabouri, Hong, & Zulkifli, 2011). Personal Innovativeness in IT (PIIT) has been revealed to be a reliable predictor of users' attitude about the simplicity of use and effectiveness of new technologies (Nov and Ye, 2008). Agarwal and Prasad (1998) have defined PIIT as "the willingness of an individual to try out any new information technology". They discuss that PIIT is a major determinant of IT acceptance by moderating in perceived usefulness (PU), compatibility, and perceived ease of use (PEOU). Here, it should be considered that in most of IT acceptance model such as Technology Acceptance Model (TAM) (Davis, 1989), Decomposed Theory of Planned Behavior (DTPB) firstly introduced by Taylor and Todd (1995) and the Unified Theory of Acceptance and Use of Technology (UTAUT) by Venkatesh et al. (2003), as well as in majority of models of users' satisfaction including End User Satisfaction (EUS) model (Adamson and Shine, 2003), Model of Small Business User IT Satisfaction (Palvia and Palvia, 1999) and Wixom and Todd (2005) integrated model of user satisfaction and technology acceptance with IT, PU and PEOU are two key constructs of user behavioral intention and subsequently IT usage behavior.

An empirical research by Thatcher and Perrewe (2002) demonstrated that highly innovative individuals, having higher levels of PIIT, are more likely to look for stimulating experiences, as well as having more confidence in their competence to use IT. On the other hand, individuals possessing lower levels of PIIT are more probable to present general computer anxiety; also they might have less tolerance for risk.

According to Bantel (2007), innovation of ICT would be more likely if the political environment within an organization has norms favorable for change. Thus adoption of ICT will depend on whether support from top management is available. Top management consist of individuals with power and authority to make strategic decisions, thus they can develop clear-cut visions and strategies while at the same time send signals to different parts of the organization about the importance of ICT.

The role that organizational leaders play in determining firm performance has been under debate among theorists as indicated by Bantel (2007). Some view leaders as products of their environment with little power to control structural and systemic factors that determine organizational actions, others view leaders as powerful decision-makers who consciously choose among diverse course of actions, and so determine the fates of their firms. They further indicate that the intermediate position taken by many is that leaders bridge the external environment and their organization, thereby facilitating adaptation to the environment.

It's worth noting that Basdeo (2006) indicates that research has shown the ideas expressed by organizational leaders as having a significant effect on organizational innovation. He further points out that examination of innovation in architectural firms shows that ideas expressed by management in the form of work motifs had a significant impact on fostering innovation. This argument is supported by (Abukhzam & Lee, 2010) who indicate that senior management intervention could have a positive influence on the adoption rate. The implementation stage is concerned with the commitment of resources to an innovation, modifications to the organization, and use of an innovation. In the implementation stage, management has a significant impact on organizational innovation through decisions relating to their commitment to the innovation.

As noted by Saadullah (2007), a negative attitude to ICT adoption, lack of management commitment, reduction of the companies' resource allocation and motivation to use the technology, results to resistance to change. Commitment to innovation as defined by Anggraeni (2009), is the managerial willingness to allocate resources and champion activities that lead to the development of new products, technologies, and processes consistent with marketplace opportunities.

From the research conducted by Mckeown (2008), they introduce several insights about ICT adoption by organizations. First management style factors, such as the CEO's attitude towards and interest in ICT, CEO's age and attitude towards change are some of the important aspects of promoting ICT adoption. In their conclusion Ayodeji & Oyesola, (2008) indicate that it is imperative for bank management to intensify investment in ICT products to facilitate speed, convenience, and accurate services.

CULTURAL INFLUENCE TO ICT ADOPTION

Culture accounts for variations among organizations and their managers, both nationally and internationally. It explains why different groups of people perceive and do things differently (Melanie & Sue 2007). Organizational culture is a significant determinant of ICT implementation in organizations (Bruque and Moyano, 2007; Cooper, 1994; Kanungo, 1998; Rioli and Savicki, 2003). A number of organizational culture definitions can be found within the body of literature. Greenberg and Baron (2007), defines organizational culture as a specific collection of values and norms that are shared by people and groups in an organization and that they control the way they interact with each other and with stakeholders outside the organization.

Based on the definition of Hodges and Hernandez (1999) "*culture in organizations can be thought of as the beliefs, values, and meanings shared by members of an organization*". Culture can also be regarded as the way of doing and sharing things for individual through complying firm's beliefs values, and attributes (Nguyen, 2009) or can be defined as indigenous characteristics of organization including level of openness to change and characteristics of human resources (Hall et al., 2001)

Studies suggest that the core values of a firm can influence the firm towards a particular strategic alternative or technology. In particular, their technical expertise and their attitude towards ICT can affect their company's ability and willingness to engage with ICT matters (Apulu & Latham, 2009), hence embedding ICTs in organizations requires careful consideration of the implementing organization's culture and the cultures of the organizations and countries that will communicate with that organization (Sornes, Stephens, Browning, & Saetre, 2004).

As noted by Gammack and Twati (2006), culture is a composition of values, beliefs and behaviors that represent an organization's working environment, organizational objective, and vision. On the other hand Hofstede defines organizational culture as "*the collective programming of the mind, which characterizes the members of one organization from others,*"

Culture consists of some mixture of artifacts or practices, values and beliefs and hidden assumptions that organizational members have in common about appropriate behavior. Culture represents a shared set of values consisting of objective and subjective realities which comprise socialized predispositions and beliefs that guide individual's perceptions of observed events and personal interaction, and the selection of appropriate responses in social situations (Adapo 2008).

Culture can influence actual behavior through its influence on attitudes and subjective norms and consequently enhance the adoption and use of ICT or may provide important barriers for using them, through enhancing or inhibiting individual innovation. Organizational culture can be a barrier for innovation adoption in an organization as noted by Bunker and Pang (2010): "while most managers tend to support new technologies, many of them turn away when they realize how much that technology is likely to change their traditional organizational culture".

ICT adoption, as in cases of any technology, is a result of a series of individual decisions. Miller (2003), states that adoption decisions are highly subjective to the attitudes of the people in an organization and may be influenced by the organization's social and cultural characteristics. This is because, adoptions are largely individual decisions aggregated into group decisions, and such individual decisions are largely affected by many non-economic factors, related to cultural and psychological aspects of the individual, and organizations. Adapo (2008), argue that, firm's cultures are difficult to change, thus fostering organizational culture to be one of the sources of resistance to technological change. IT conflict with organizational culture can result in user resistance to IT adoption (Ghobakhloo, Sabouri, Hong, & Zulkifli, 2011).

In the theory of reasoned action, that was formulated by Fishbein and Ajzen in 1975, they stated a mechanism on how culture can influence individual behavior. The theory states that attitudes lead to the intention to perform certain behavior and intentions actually lead to the actual behavior. Culture can influence actual behavior through its influence on attitudes and will consequently enhance the adoption and use of ICT or may provide barriers for using them (Stephen, 2003).

As pointed out by Stephen (2003), the significance of cultural issues, are the vital predictors which if not fine tuned, may cause failure in technology adoption. Apulu & Latham, (2009) state that the organizational inclination towards new ICT adoption can be strengthened, if there is a culture where ideas and innovations related to ICT are freely shared. Thus, a positive organizational attitude regarding systems innovation would increase the adoption of ICT technologies. Adapo (2008), indicates that based on Hofstede's typology of culture, there are five cultural dimensions: individualism-collectivism, power distance, uncertainty avoidance, and masculinity-femininity and long-term versus short-term orientations.

Individualism-collectivism dimension describes the relation between the individual and the group. Members from individualistic cultures tend to exhibit more favorable attitudes towards uniqueness and differentiation. Power distance relates to the extent to which the members of a society accept that power is distributed unequally. Cultures that exhibit large power distance are predicted to be less innovative. Uncertainty avoidance is the degree to which societies can tolerate uncertainty and ambiguity Kizza (2003). Apulu & Latham, (2009) contend that cultures which do not nurture openness and knowledge sharing cannot provide the appropriate human inputs needed by the organization for their ICT initiatives; they further state that lack of supportive organizational culture and structure may hamper technology initiatives in any organization.

Culture with low uncertainty avoidance tend to be more innovative due to greater tolerance for risk. Masculinity-femininity refers to the extent to which a society is closely related to the gender roles. Masculinity is often related to the diffusion of technological product innovations and femininity is more related to diffusion of cosmetics and apparel. Long-term versus short-term orientation measures peoples consideration of the future (Adapo, 2008).

Organizational culture is seen by Kizza (2003), as the basis to understanding the reasons as to why some firms succeed in implementing their strategies while others fail. He further observes that if change is to succeed in an organization, its initiator or promoter needs to understand the culture of the organization (that is to be changed), adding that if the proposed changes contradict the organization's cultural biases and traditions, the changes tend to be difficult to embed. This argument is in agreement with (Abukhzam & Lee, 2010) who indicate that users may reject some technologies because technologies are not compatible with their values, beliefs, and past experiences

Kizza (2003), discusses several cultural values that facilitate change in organizations, they include:

- a) **Power** -managers should adopt management styles that allow for the devolution of power from the top to the bottom.
- b) **Job security** -employees need to be convinced that there are more benefits in accepting change.
- c) **Commitment to organizational goals** -this can be achieved through making employees participate in the change process.
- d) **Team work** -the leader should encourage increased participation, information sharing and collective decision making.
- e) **Equal respect for employees** -each employee's contribution to change should be valued.
- f) **Employee empowerment** -this releases the creativity of the employee, thereby promoting change.
- g) **Continuing learning** -to ensure organizational survival whilst enhancing the ability to adapt to changes in the environment.

RESEARCH METHODOLOGY

This study used a descriptive and co relational survey design. The purpose of descriptive surveys, according to Ezeani (1998), is to collect detailed and factual information that describes an existing phenomenon. The target population of the study was banks in Nigeria. A sample of five banks were chosen.

The theoretical architecture was bridged with methodological design towards deepening the scientific or philosophical undertone of the research. The research employed and utilized descriptive research design. The choice of these designs was informed by the ability of descriptive method to profile respondents

categorically (Greener, 2008). These designs formed the background upon which the statistical analysis is based. Evidence from Adams, Khan, Raeside and White (2007), Remenyi (2002 & 2005), and Pallant (2005) have demonstrated that survey-based research which required grouping is best organized and analyzed with descriptive approach.

Primary data was used for the research. The questionnaire was specifically designed to accomplish the objectives of the study. The first section collected information such as age, gender, experience, professional status and position, while the second section contained 6 questions that measure the role of organizational culture and top management support as a determinant in the adoption of ICT in the Rwandan banks. Using a Likert scale of four points: Strongly Agree, Agree, Disagree, and Strongly Disagree.

The statistical reliability with Cronbach's alpha for perceived ease of use is 0.64 (64%) and ICT compatibility 0.63 (63%) respectively which Strauss and Corbin (1998), Oppenheim (1992), Diaz de Rada (2005), and Bryman and Bell (2003) have demonstrated to be of acceptable standard. The questionnaire was administered to 353 employees in the chosen five commercial banks' headquarters in Kigali using a stratified random sampling technique. Of the three hundred and fifty three (353) questionnaires distributed, 274 were retrieved and considered usable for the research. The respondents' participation was solicited through a consent letter and the data gathered are for academic purpose only. Out of the 274 questionnaires retrieved 25 of the respondents were managers and 249 of the respondents were non managerial employees in the banks.

DATA ANALYSIS, INTERPRETATION AND DISCUSSIONS

The profile of the respondents was analyzed through descriptive statistics as presented in Table 1.1 and it indicates that a total of 200 male group representing (73%) and 74 female, representing (27%) of the total 274 respondents used in the study. This proportional difference only reflects the number of respondents surveyed. However, the research of Castel, Salvador, and Sanz (2010) indicates that the male gender tends to adopt new technologies faster than the female counterpart both at home and at work place. Also, Esteves, Bohorquez, & Souza, (2008) in their paper indicate that female have more negative attitudes towards computers and internet than men. It is not this paper submission that gender impact adoption rather a categorization of the respondents.

TABLE 1.1: DISTRIBUTION OF THE RESPONDENTS BY DEMOGRAPHIC FACTORS

Demographic Variables	Categories	Frequency	Percentage
Gender	Male	200	73%
	Female	74	27%
Educational Level	Diploma / Certificate	87	31.8%
	Bachelors	178	65.0%
	Masters	3	1.1%
	PhD	0	0%
	Others	2	0.7%
Terms of Employment	Permanent	241	88.0
	Temporary	17	6.2
	Part Time	9	3.3
Work Experience	Less than 1Year	96	35.0
	1 to 3 Years	124	45.3
	4 to 6 Years	40	14.6
	7 to 10 Years	11	4.0
	Above 10 Years	3	1.1

Table 1.1 further indicates that out of the 274 respondents, 87 represented (31.8%) has a certificate or Diploma, 178 respondents (65%) has Bachelors Degree, 3 respondents (1.1%) with Masters Degree, PhD has 0 (0%) respondents, and 2 respondents hold other academic qualifications represented by 0.7% of the total respondents. However, four of the respondents representing 1.5% did not indicate their academic qualifications. Table 1.1 also indicates the term of employment. Of the total 274 respondents, 241 (88%) are permanently employed, 17 respondents (6.2%) are temporary employed, 9 respondents (3.3%) are part time workers and 7 respondents (2.6%) did not indicate their employment category. From the statistical results, permanent employees had the highest percentage, followed by temporary and part-time respectively. Further, this indicates that 96 respondents (35%) have worked with the banks for less than one year, 124 respondents (45.3%) have worked with the bank between one and three years, 40 respondents (14.6%) have worked with the bank between 4 and 6 years, 11 respondents (4%) have worked with the bank between 7 and 10 years, and 3 respondents (1.1%) have worked for more than 10 years.

From the categorization of the respondents, it becomes explicit that work experience, educational qualification and terms of employment appeared robust to authenticate the quality of the information provided by the respondents. As such, the perception of the respondents with reference to organizational culture and the top management support was investigated.

From the statistical reports, in Table 1.2 below, it indicates that organizational culture was instrumental to adoption/usage with a Mean of 3.4112 (SD, 0.62996). This implies that adopting/using new technology is subject to the prevailing organizational culture.

TABLE 1.2: SUMMARY OF THE RESPONDENT'S RESPONSES ON THE ORGANIZATIONAL CULTURE

Questions	N	Minimum	Maximum	Mean	Std. Deviation
The employees are involved in assessing the best technology to buy.	274	1	4	3.44	1.047
The employees are involved in decision making that concerns the buying of new technologies in the organization.	274	1	4	3.40	1.051
The employees are empowered to give suggestions, to the improvement of the operations of the technologies used.	274	1	4	3.40	1.051
Overall Mean for Organizational Culture	274	1.67	4.00	3.4112	.62996

Source: Authors Compilation (2010)

From the foregoing statistical evidences, it becomes explicit that the respondents' perception on ICT adoption/usage decision is subject to organizational culture.

TABLE 1.3: PORTRAYS THE PERCEPTION OF NON MANAGERIAL EMPLOYEES TOWARDS TOP MANAGEMENT SUPPORT ON THE ADOPTION ON THE NEW INNOVATIONS

Questions	N	Minimum	Maximum	Mean	Std. Deviation
Top management encourages us to be ready to accept new technologies that are introduced in the bank.	249	1.00	4.00	3.30	.899
Management informs us of the usefulness of using new technologies	243	1.00	4.00	3.12	.929
The management likes using new technologies always	243	1.00	4.00	3.13	.934
Overall Mean for Top Management support		1.00	4.00	3.1245	0.73255

Source: Authors Compilation (2010)

The table summary indicates that innovation adoption/usage as perceived by the non managerial employees is influenced by the top management support. The findings are not in isolation since the research of Latham & Apulu, (2009) revealed that the support from top management is the precondition for successful ICT adoption/usage. Further, Ion and Andrea (2008), Young (2007), and Rogers (2003) demonstrated that compatibility and familiarity strongly determine ICT adoption/usage decision.

The depth of relationship between each principal factor to ICTs adoption/usage was established to substantiate the documented perception of the surveyed respondents. In light of this, the correlation analysis was conducted to authenticate the presumed proposition of a relationship. As evident in Table 1.4, a strong positive statistical significant relationship between ICTs adoption/usage and organizational culture was found with a Pearson Correlation Coefficient of 0.384 at 1% (0.000) level of significant. This implies that ICTs adoption/usage is dependent on deep seated values and beliefs which evolve into an organizational culture.

TABLE 1.4: SUMMARY OF THE CORRELATION MATRIX BETWEEN TOP MANAGEMENT SUPPORT AND ORGANIZATIONAL CULTURE

Variables	Significant Level	Pearson Correlation Coefficient
Organizational Culture	0.000	0.384**
Top Management support	0.000	0.219 **

The top management component was statistically investigated and the result indicates as reflected in Table 1.4 that a positive, strong and significant statistical relationship exists between the top management support, organizational culture and the adoption of ICT. Organizational culture had a Pearson correlation of 0.384 and significant at 0.000 (1%), while top management support had a Pearson correlation of 0.219 and significant at 0.000 (1%). The result indicates that top management support and organizational culture has a positive and significant relationship with adoption of ICT among the surveyed commercial banks in Rwanda. The finding add credence to the work of scholars (Lau, 2002; Davis and Riemenschneider, 2003; Darch and Caltabiano, 2004; Fasan, 2007; and Agboola, 2007) that top management support and organizational culture components (values, norm and standards) determine ICTs' adoption decision.

Based on these findings, this research is an added value to existing knowledge on the debate about the depths to which ICT organizational culture and top management support influence adoption/usage decisions. Therefore, the respondents from the commercial banks in Rwanda assert that ICTs' organizational and top management support do influence the adoption/usage of ICT. Hence, the paper suggests that users' computer literacy, training and development, self-efficacy and ICT orientation become integral components of the commercial banks' capacity building programs.

CONCLUSION

Although existing researches have identified ICTs' adoption determinants, the Rwandan commercial banks framework has remained a neglected component. This research contributes to the wealth of existing documentation through the identification of dual factors that determines ICTs' adoption in the Rwandan commercial bank platforms.

The suggested policy has implications for banks and managers which can be used as a basis to plan efforts towards increasing workers' work performance and enhancement. ICT literacy and self-confidence are factors impacting users' perceptions and the overwhelming effect could compound a bank's adoption potential which has instrumental influence on competitiveness and profitability/survival. By improving the staff and the management's related aspects on ICTs adoption, the commercial banks may increase banks' performance. This implies that staff and the management must be trained in such a way that their soft and hard skills are ICT enhanced.

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