



INFORMATION COMMUNICATION TECHNOLOGY, KNOWLEDGE AND SKILLS AS MAJOR CONTRIBUTORS AND KEY DRIVERS OF EMPLOYEE PERFORMANCE IN GOVERNMENT PARASTATALS: THE UGANDAN DISCOVERY

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Abstract: - This paper has been written using data derived from an empirical study that assessed the influence of organizational resources on employee performance in government parastatals. It was based on a case study of Uganda National Bureau of Standards (UNBS). For purposes of this study, organization resources included employees' knowledge, skills, and use of information communication technology. The following were the objectives of the study:

- To examine the influence of skills on employee performance in UNBS.
- To evaluate how knowledge influences employee performance in UNBS.
- To assess the relationship between Information communication technology and employee performance in UNBS.

The findings of the study revealed that UNBS employee skills, knowledge and use of information communication technology (ICT) influence employee performance. Skills were found to be the most significant influencer of employee performance ($r = 0.522$; $p \leq 0.01$). It is however evident that UNBS management does not offer regular training (mean = 2.5641), the ICT in place was not user friendly (67% of the respondents), UNBS does not reward efficient employee performance 76.9% and staff morale was not boosted 43.6%. Based on the findings of the study, it was recommended that UNBS carries out regular training, put in place adequate and user friendly ICT infrastructure, ensure that efficient employee performance is rewarded, and put in place motivation moves and incentives to boost staff morale.

Keywords: Organization Resources, Information Communication, Technology, Parastatals, employee performance and government policy

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Introduction: Organization resources in the form of knowledge, skills and Information Communication Technology (ICT) have a bearing on the employee performance not only in the private sector but in government

organizations as well. This particular story was conducted at Uganda National Bureau of Standards in Uganda.

Skills development, knowledge acquisition and the use of information communication technology started in the 19th Century. Modern societies in America, Europe and Asia are often labeled as “labour societies” or “working societies” characterized by a strong workforce with skills, knowledge and Information technology which are seen as driving forces for economic development and prosperity. A study in the United States by (Darrell, 2011) shows that the strongest narratives in U.S. history has been the contribution made by talented, hard-working and entrepreneurial immigrants whose skills and knowledge created a prosperous new country. In support of the above findings, a study from Europe by (Allan, 2011) revealed that in developing the knowledge, skills and understanding which underpin job performance; employees extend their capabilities faster than their role allows them to demonstrate. A study from china by (Keke, 2007) also confirmed the above that knowledge and knowledge workers are highly required by organizations to abreast with the rapid innovation of information communication technology. The increasing impact of information technology, knowledge and expertise are pressingly desired by organizations for resource reinforcement and business development.

According to the principles of Resource based view (RBV) a firm possesses or controls a pool of resources and capabilities (Grant, 2002; Newbert, 2008). It is these resources and capabilities in the form of knowledge, skills and Information Communication Technology, which create competitive advantages that improve performance (Newbert, 2008). In support of organization resources and performance, a study from Malaysia by (Fauzilah and Noryati 2011), revealed that employees of the Malaysian Government require special training programs to make them aware of the right qualities needed for servicing public. The research

revealed further the need to upgrade knowledge and skills on technological development and up-to-date management techniques by offering short and medium courses. One wonders whether organization resources influence employee performance in parastatals in Uganda, UNBS in particular.

In Africa, a study conducted in Nigeria by (Yunus and Waidi 2011) revealed that technological change has a significant relationship on employee skills and performance. This leaves one wondering whether skills, knowledge and rapid change in technology have impacted on the employee performance in Uganda.

In Uganda since 1936, the government policy has been striving to improve people’s skills, knowledge and technological competence of workforce so that employees in organizations perform their tasks to the best of their abilities (Mubangizi, 2009). Every year, the government of Uganda spends huge sums of money from the National budget to ensure that people get skills, knowledge and be able to adapt to changes in technological trend so as to foster economic development. (Mukasa, 2010), on the other hand observed that employee performance in some organizations in Uganda is very poor. According to Mathias (2011), UNBS also does not train employees to positions of higher responsibility in order to acquire the right skills, attitudes and knowledge to perform their duties effectively.

In its Strategic Plan of 2010/2011-2014/2015, UNBS plans for training opportunities for staff to stimulate their knowledge, skills and be proficient in use of latest technology and thus be resourceful to UNBS. However, the employee performance in terms of meeting targets is very poor. Among the major causes put forward to explain this poor performance include; frequent changes in technology, job challenges resulting from diverse customer needs, changes in the environment and methods of work. This state of affairs indicates that the goal of the UNBS of mitigating the occurrence of substandard

products on Ugandan markets is not yet effectively achieved as many substandard products continue to flood the Ugandan markets. The study therefore sought to examine whether the staff of UNBS have adequate knowledge, skills and are user friendly to the current trends in technology (Mubangizi, 2009).

This paper presents findings of a study that sought to examine a relationship between organization resources and employee performance in Government parastatals in Uganda with reference to Uganda National Bureau of standards.

Related Literature: This study was guided by the Resource based theory advanced by (Barney,1991) which underpins the importance of knowledge, skills and Information Communication Technology as key factors that enhance employee performance in any organization. This model is important in understanding how strategic resources can enhance employee performance. (Barney, 1991) suggested that firms possessing valuable, rare resources and capabilities will attain competitive advantage, which in turn will improve performance. RBV assumes that a firm possesses or controls a pool of resources and capabilities (Grant, 2002; Newbert, 2008), and that these resources and capabilities, which are different among firms, create competitive advantages, which can improve performance (Amit & Schoemaker, 1993); (Barney, 1991); (Newbert, 2008).

(Morgan, 2009) describes employee performance as the ability of employees to meet the performance set targets, high productivity, minimum errors and mistakes and meeting deadlines. It should be noted that if Uganda National Bureau of Standards (UNBS) utilizes well all its assets, capabilities, organizational processes, employee attributes, information communication technology, knowledge and skills of employees it can register good employee performance.

Skills And Employee Performance: According to (Needham, 2006) possession of adequate

skills needed to execute tasks stimulates employee performance. It should be noted that lack of employee skills might lead to reduction in possible production levels, to errors and to waste. (Dubois and Rothwell 2004), adds that employees who lack skills in most cases are costly and unproductive to the organization and some may decide to leave in frustration. A study by (Spencer, Cherniss and Goleman 2001), revealed that in organizations, employees with interpersonal skills are more productive than those without. (McBeath, 2000), states further that team skill leads to good employee performance. Team skills enable an employee to establish effective working relationships among team members and participates in solving problems and making decisions (Hezberg, 2001). However this skill has to be coupled with communication skills to enable a person to present and express ideas and information clearly and concisely in a manner appropriate to the audience, whether oral or written.

Donnelly et al (2009) states that employee skills must be continually updated to maintain productivity. That global competition has created a rapid pace of change which means that the current skill sets must be continually updated (Bannett,2008), stressed that organizations should focus on creative thinking skills, academic skills and problem solving skills as an avenue for improvement in employee performance. These are the foundation skills which facilitate effective performance of employees in an organization (Markman & Suhr, 2009). These skills also assist development at the personal and by extension, the social and economic levels. Academic skills must change and do so quickly, if they are to keep pace with the needs of the employers in terms of good performance.

Research findings by (Mathias,2011), revealed that UNBS has well developed policies on human resource however these policies are not effectively and efficiently implemented to satisfy public service delivery, neglect setting performance indicators which measure

performance of staff and the organization at large. It is however evident that inadequate training and staff development programs coupled with lack of promotion affects the performance of the staff. The review of international labour activities further indicates that the concept of skills is composed of a practical element in it. It is this practical element that brings about output at work (Booz, Allen & Hamilton 2013).

In line with the skills being practical, previous research indicates that 'skill' is one component that cuts across many disciplines. This means that organizations need to identify the exact skill that will make them excel in their operational environment and concentrate on it. Organizations that are reported to be good in identifying their competence as far as skills are concerned are the ones that are reported to be at the top of the market (Oracle, 2012).

Government entities work in form of fulfilling orders that are set as part of government plans and hence there is great need for the plans to be fulfilled to the dot. This however is sometimes hard to achieve since there are situations in which employees feel that they cannot handle the tasks and at the same time, they are not given chance to learn the skills (Belva, 2013). This is reported to have been a challenge in many government agencies. Research conducted indicates that this kind of tendency comes about as result of lengthy processes in decision making (bureaucracy) (U.S Department of Labour 2007).

Knowledge And Employee Performance

The findings of OECD (2012) which indicated that having knowledge has impact in the employee performance though through skills. According to the study, the knowledge that someone possesses is mainly manifested through the things that this person is in position to do. This therefore reflects that knowledge could be influential towards performance of an employee but may not directly influence performance if that knowledge is not transmitted through actions which are actually part and parcel of

skills. This same position was reached by (Desjardin & Reubenson 2011) as well as in the research of Booz et al. (2011). All these researchers pointed to the fact that knowledge is indeed important in making someone become an excellent performer. However, they further agree that knowledge is more of an abstract phenomenon which manifests itself through actions which are actually skills. There is a thin line that exists between knowledge and skills though they are almost the same. The only way some with knowledge can disseminate it to others is through an art of dissemination which is a skill (Foss, Minbaeva, Pedersen & Reinholt 2009). This therefore led to a conclusion that knowledge is indeed important for the improvement in the employee performance though knowledge in its abstract form may not significantly make some perform better until that person puts the knowledge into action through skills (Gholami, Asli, Nazari-Shirkouhi & Noruzy 2013).

(Kent, 2006) states that organizations should develop its people through increasing their knowledge and understanding of the total environment; he narrates the benefits of having adequate knowledge to include improvement of performance changes in attitude increasing productivity. Improving people's knowledge makes the job enjoyable which explains that one of the functions of the organization is to develop its employees knowledge which will later affect the performance of employees positively. (Morgan, 2007), emphasized that employees with work knowledge are the ones who can make accurate forecasts for demand. Making accurate forecasts is not for everyone unless someone has adequate knowledge (Ulrich and Brockbank, 2005). Knowledge enables an employee to identify need, arrange for, and obtain resources needed to accomplish own goals and objectives (Kent, 2006). Therefore, knowledge enables a person to develop and use tracking systems for monitoring own work progress and effectively use resources such as time and information to produce good work.

Therefore organisational resources in terms of knowledge can facilitate employees to be productive to the organization which leads to higher performance.

Information Communication Technology And Employee Performance: (Buchanan, 2010) pointed out that using ICT at work place is very important. He further pointed out that companies need to ensure that the introduction of ICT usage in their operations has to be preceded by intense training into using the ICT itself. This is considered to be important so that the employees can be able to acquire skills into using the ICT gadgets and eventually increase in their performance (Wang, 2010). The performance of employees is therefore centered on acquiring the necessary skills to perform what they are supposed to do at work place.

Review of literature by Wagner et al (2010) reveals that there is indeed some influence that ICT usage can have on the performance of employees. This same view is supported by Youssef & Dahmani (2010) who considered investigating an individual from the time of student life to the time this person contributes to work environment. According to their findings, there is no conclusive evidence that ICT usage indeed has an impact on the performance of employees and generally performance of individuals. They however point out some empirical factors which according to them indicate some degree of influence that ICT usage has on individuals performing both as students and employees. This same view is supported by the findings from the studies conducted by (Rice & Cooper 2010).

(Bennett, 2008) expresses that employees will need the right tools and technology to perform their duties appropriately. It is good business practice to control business expenses, however limiting the use of resources, makes it impossible for the employees to deliver (Ulrich and Brockbank, 2005). For example, if the organization's business relies heavily on real time data, invest in a reliable internet connectivity network with the appropriate

bandwidth. This will allow employees to be more efficient, have the data they need to perform their duties and most of all make them happy as they have the right tools. On the other hand if the organization's choice of tools is scanty, it results into frustration from both employees and customers.(Megginson,2000) says that technology choice leads to productivity of employee. He asserts that there is a growing awareness in the business community that companies can benefit from increased workforce productivity by allowing employees to have some level of choice in what technology they use and the degree of mobility they have (Markman & Suhr, 2009).

According to Donnelly et al (2009) in order to stay relevant in a fiercely competitive market and make strategic decisions about operational efficiency, most expert commentators believe that businesses should adopt a smarter, more mobile-centric and integrated approach to ICT.

Government Policy: A policy refers to the process of making important organizational decisions, including the identification of different alternatives (Stone, 2008; Smith, 2002). Governments globally, are the policy making bodies while public organizations are either government policy implementing agencies or service delivery bodies. So the decision making power of public organizations is related to issues of policy (Christensen, 2001). The actions of government parastatals are also often strongly regulated by other governmental actors, such as central government departments, funding, audit offices and public standards commissions (Christensen, 2001). For that matter, government policy was used in this study as a moderating variable. Since the research was conducted in public organizations, it was also imperative to examine whether there is an interactive effect among performance management practices, government policy and employee performance in public organizations in Uganda.

Conceptual Framework: Conceptually the study adopted organization resources in terms of

skills, knowledge and Information Communication Technology as independent variables, government policy as the moderating variable and employee performance as the dependent variable.

Research Methodology: The study adopted a cross-sectional survey research design (Amin, 2005) to establish the influence of organization resources on employee performance. Also the research study employed the stratified sampling design to select the sample from the population (Sekaran, 2003). A mixture of methodology was employed using quantitative and qualitative design which is grounded in the Social Sciences literature (Sekaran, 2003; Ahuja, 2005). A combination of methods such as use of a questionnaire, interview guide and document review were used for the purposes of collecting data from a population of 120 employees at UNBS.

The table for determining sample size by (Krejcie and Morgan 1970) was used to determine a representative sample from the general population.

The sample size was 99 (see table 3.1 below).

The stratified sampling technique was used to get the study sample. In stratified random sampling, the population was grouped into strata of supervisors and operatives.

Distribution of respondents in population and sample

Staff category	Population size	Sample size
Operatives	100	80
Supervisors	20	19
Totals	120	99

Source: Data from registry department of UNBS, 2012

The research study employed the stratified sampling design to select the sample from the population. This was done by considering the specializations of the different respondents to group them in the different strata. Two strata were identified comprising of operatives and supervisors in UNBS. Respondents were then selected from each stratum using simple random

sampling design technique. Questionnaires were administered to a sample of 99 respondents from UNBS while a sample of 20supervisors was purposively selected and interviewed to triangulate the data (see major study).

A 5-point Likert scale questionnaire was the main instrument of data collection for the study. One interview guide was also used for qualitative data collection. A pilot study was done in order to test the psychometric properties of the instruments (Gay, 1996). Ambiguities, misunderstandings and inadequacies were improved.

Validity of the questionnaire was done using Content Validity Index (Amin, 2005). The average Content Validity Index (CVI) formula was used to capture adequate and representative sets of items which were used to tap the content.

$$(CVI) = \frac{\text{Number of items declared valid}}{\text{Total number of items}}$$

The study also sought to establish the reliability of the instruments by determining the reliability scales and content validity. Results of this test are presented in table 2.

Reliability of instruments

Variable	Cron Bach's Alpha Coefficient	CVI
Employee Skills	0.765	0.877
Employee Knowledge	0.855	0.769
Information Communication Technology	0.859	0.898
Government policy	0.899	0.893
Employee Performance	0.824	0.954

Source: Primary data

Basing on the results displayed in the above table, the researcher managed to realize that all the variables in the questionnaire had reliable and valid question items. This is judged from the reliability and validity results which are all above 0.7 (Amin 2005).

The reliability of the instrument was calculated using a Cronbach Alpha test of reliability. The

Alpha Correlation Coefficient of at least 0.7 is considered more reliable (Ahuja, 2005).

Data Analysis: Quantitative data was analyzed descriptively using the mean, frequencies and percentages to establish the influence of skills, knowledge and information communication technology on employee performance.

Qualitative data was first arranged, tabulated and analyzed using Pearson’s Correlation and Multiple Regression tests with the aid of the Statistical Package for Social Scientists (SPSS). The purpose of using this type of analysis was to yield the desired statistical output and measures of dispersion.

Analysis of qualitative data was done using thematic method where data was collected from the field, grouped according to different themes based on research objectives. Further content analysis was also used by looking at the available content from the field and placing it within relevant themes under the objectives of the study. The main reason for using this type of analysis was to present issues as they existed on

Findings from Correlation Analysis: Correlation analysis was carried out to establish the degree and direction of relationship between the variables of study as displayed in the following Table.

Findings from Correlation Analysis

Correlation analysis was carried out to establish the degree and direction of relationship between the variables of study as displayed in the Table below:

	1	2	3	4	5
Skills of employees (1) Pearson Correlation Sig. (2-tailed)	1				
Knowledge of employees (2) Pearson Correlation Sig. (2-tailed)	.499** .000	1			
ICT usage of employees (3) Pearson Correlation Sig. (2-tailed)	.578** .000	.698** .000	1		
Government Policy (4) Pearson Correlation Sig. (2-tailed)	.469** .000	.460** .000	.504** .000	1	
Employee Performance (5) Pearson Correlation Sig. (2-tailed)	.522** .000	.422** .000	.287* .018	.345** .003	1

**Correlation is significant at 0.01 (2 tailed)

* Correlation is significant at 0.05 (2 tailed)

Source: Primary data

ground without subjecting the research findings to statistical tests (Amin 2003).

Findings Correlation and Regression Results: In line with the findings in relation to the sample characteristics, the study managed to indicate findings in relation to the main research objectives through the results obtained from correlation and regression analyses. Correlation analysis was carried out to establish the degree and direction of relationship between the variables of study. The study was conducted basing on five main research variables; employee performance, usage of ICT in operations of UNBS, employee knowledge of what they were doing at work, employee skills to perform their tasks and government policy influencing the operations of UNBS. According to the conceptual framework developed, these variables are portrayed to be related and the correlation analysis carried helped to point out whether this was the case in the operations of UNBS. Correlation results are displayed in the following table.

The results in the above table indicate that all the variables have positive and significant relationships to one another. Further discussion of these relationships has been given in the subsections that follow.

Relationship between Skills of Employees and Employee Performance

Findings indicate that there is a significant and positive relationship between skills of employees and employee performance at UNBS ($r = 0.522$; $p \leq 0.01$). This implies that the more skilled employees become, the better becomes their performance at work.

Relationship between Knowledge of Employees and Employee Performance

Concerning the relationship between knowledge of employees and their performance, the findings indicate that there is a positive and significant relationship between them ($r = 0.422$; $p \leq 0.01$). Like for the case of skills of employees, the findings indicate that the more knowledgeable an employee becomes, the more productive that employee is expected to be at UNBS.

Relationship between ICT Usage Of Employees And Employee Performance

In line with the objectives of the study, the researcher went ahead to establish a relationship between usage of ICT by employees at work and their performance as employees. Findings revealed that there is a positive and significant relationship between them ($r = 0.287$; $p \leq 0.05$). Like for the case of skills of employees, the findings indicate that the more the employees keep using ICT in their operations, the more productive they are at UNBS.

Relationship Between Government Policy and Employee Performance

Though not directly attached to the other variables, the researcher found it wise to consider the influence of government policy on the performance of employees in UNBS. Findings further indicate that there is a positive and significant relationship between government policy and employee performance ($r = 0.345$; $p \leq 0.01$). This means that the current government policy has been able to positively and significantly influence the performance of employees in UNBS.

From a general point of view, the findings from correlation analysis indicate employee performance is positively and significantly correlated with all the variables that have been suggested to have relationship with it. The findings have further been extended to indicate the degree of influence that the independent variables (Skills, Knowledge, ICT Usage and Government Policy) have on the dependent variable (employee performance). This influence has been presented in the regression analysis results.

Regression Analysis Results

A Regression analysis was carried out to establish the degree to which the employee performance in UNBS is explained by each of the independent variables suggested in the conceptual model. The research study established the percentage of influence that each of the independent variables has on the performance of employees. These findings are presented in the table that follows below;

Results from regression analysis

The study also set out to establish the influence organization resources on employee performance using regression analysis as indicated in the table below.

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.149	.423		.352	.726
Skills of employees	.433	.132	.480	3.287	.002
Knowledge of employees	.287	.157	.299	1.823	.074
ICT usage by employees	.228	.154	.257	1.481	.144
Government Policy	.050	.118	.057	.426	.672
Dependent Variable:	Employee Performance		F - Statistics	6.543	
R:	.564		Model Significance	.000	
R-Square:	.318				
Adjusted R-Square:	.270				

Source: Primary data

The findings in the above table indicate that the regression model considered in the analysis is significant at significance level of 0.000. The model was designed to predict employee performance as the dependent variable. Findings further indicate that the model is in position of providing explanation of up to 31.8% of the changes in employee performance. This means that only 31.8% of the changes in employee performance can be explained by the variables that have been used in this research as a group (i.e a combination of skills, knowledge, ICT Usage and Government Policy).

Considering the individual influence of the independent variables, the Standardized Beta Coefficients were investigated. According to these values, only one variable has been highlighted as the significant predictor of employee performance. This variable is skills of

employees at work place (Beta = 0.480; Sig = 0.002; $p \leq 0.05$). The remaining variables are reported to not to be significant predictors of employee performance because of the significance levels reported. To start with, knowledge of employees at work place is reported to be insignificant with Sig value = 0.074 ($p > 0.05$). ICT Usage on the other hand is reported to be insignificant predictor of employee performance with Significance Value = 0.144 ($p > 0.05$). In the same vein, government policy is also considered to be an insignificant predictor of employee performance with significance value = 0.672 ($p > 0.05$).

Apart from being insignificant predictors, these variables have some degree of influence of employee performance as reflected by the Beta Results. As reflected in table 4.2, knowledge of employees as a variable has more influence on

employee performance (Beta = 0.299) compared to the other two variables (ICT Usage [Beta = 0.257] and government policy [Beta = 0.057]). In that same order, government policy is considered to be least influencer of employee performance.

In summary the findings from regression, correlation and descriptive statistics have indicated that there is a relationship between organizational resources and employee performance and that these resources influence employee performance.

Conclusion: The sought to establish the influence of organizational resources on employee performance in government parastatals in light of the prevailing government policy. According to the findings, employee performance is positively and significantly correlated with all the variables that have been suggested to have relationship with it. The skills of employees are very important towards ensuring improved performance at work place. All the other variables considered in the research study are linked to skills in one way or the other. Basing on the discussion of findings, knowledge of employees is manifested through their skills to deliver the knowledge or put it into action. On the other hand, the usage of ICT at work place is only possible when the employees have the skills to use the ICT. This therefore leaves only skills to be the cut-across concept that significantly and largely influences performance of employees at UNBS. The findings of the study revealed that majority of the respondents at a mean =2.5641 indicated that UNBS does not offer regular training that influences their performance. This means that employees possess inadequate skills and knowledge that stimulate their performance. The research study also established the ICT in place was not user friendly and staff morale was not boosted at UNBS.

Policy Implications: Government policy makers and managers in the public sector should ensure that:

- Firm policies are enacted to support availability and accessibility to training and capacity building opportunities by employees of government parastatals.
- Measures such as distributive justice is ensured so as to boost employee morale and motivation in effort to enhance individual performance.
- Public sector employees are enabled to keep up-to-date with current ICT knowledge and skills and continue restocking up-to-date ICT infrastructure for effective performance.
- There are networks and linkages between the local and other international public and private sectors in effort to improve knowledge, skills and service delivery.

Areas for Further Study

The following areas are suggested for future research:

- i) Working environment and its influence on employee performance in Government parastatals.
- ii) Influence of organizational re-engineering on employee performance in public organizations.

References:

- Amin, M. (2005). Social science research, conception, methodology and analysis. Kampala, Makerere University Prente.
- Armstrong M. (2006), Human resource management, Stanley Thane Great Britain.
- Armstrong M. (2010), Armstrong's essential Human resource management practice, Kogan Page Limited Great Britain.
- Asian Academy of Management Journal, Vol. 15, No. 1, 1– 21 , January 2010
- Australasian Journal of Educational Technology, 2013,page 54
- Bannett Bon (2008), Human Resource Management, 9th Edition Pitman Publishers London.
- Barney, J. B. (1991). Firm resources and sustained competitive advantage. Journal of Management, 17(1), 99 – 120.
- Barney, J. B. (1991). The resource-based theory of competitive advantage:

- implications for strategy formulation. *California Management Review*, 33(3), 114–135.
- Belva M.M. (2013). Acquisition Work force - Federal Agencies Obtain Training to meet requirements, but have limited insights into costs and benefits of training investment. United States Government Accountability Office. Retrieved from <http://www.gao.gov/assets/660/653438.pdf>
 - Berman, S. L., Down, J., & Hill, C. W. L. (2002). Tacit knowledge as a source of competitive advantage in the National Basketball Association. *Academy of Management Journal*, 45(1), 13 – 31.
 - Booz, Allen & Hamilton (2013). Culture at work-The future of intercultural skills in the workplace. British Council-The social research and corporate reputation scientists. Retrieved from www.britishcouncil.org/culture-at-work-research_march_2013.pdf
 - Buchanan, J. (2010). Skills demand and utilisation: An international review of approaches to measurement and policy development. OECD Local Economic and Employment Development (LEED) Working Papers, 2010/04, OECD Publishing. Retrieved from: <http://dx.doi.org/10.1787/5km8zddfr2jk-en>
 - Choo, A.S., K. Linderman, and R. Schroeder. “Method and Psychological Effects on Learning Behaviors and Knowledge Creation in Quality Improvement Projects,” *Management Science*, 53 (2007), 437-450.
 - Choo, A.S., K. Linderman, and R. Schroeder. “Method and Context Perspectives on Learning and Knowledge Creation in Quality Management,” *Journal of Operations Management*, 25 (2007), 918-931.
 - Darrell M. West (2011), Creating a "Brain Gain" for U.S. Employers: The Role of Immigration.
 - Davar Ruston (2002) *Personnel Management and Industrial Relations* VIKAS Publishing House PVT Ltd
 - David (2006), *Strategic Management theory and Practice*, third Edition, Mc Beat
 - Donnelly H.J, John M.I and Gibson L.J (2009), *Fundamentals of Management*, Ten Edition, Business Publications Inc, Illinois, London.
 - Dubois, D., & Rothwell, W (2004) *Competency-Based Human Resource Management*. Davies-Black Publishing
 - Desjardins, R. & Rubenson, K. (2011). An analysis of skill mismatch using direct measures of skills. OECD Education Working Papers, No. 63, OECD Publishing. Retrieved from: <http://dx.doi.org/10.1787/5kg3nh9h52g5-en>
 - East African community report, 2010
 - Evans David (1999), *Supervisory Management*, Redwood Books.
 - Fauzilah, S. & Noryati, Y. (2011) The Influence Of Skill Levels On Job Performance Of Public Service Employees In Malaysia . *Business and Management Review* 1(1): 31- 40, March 2011
 - Foss N.J., Minbaeva D.B., Pedersen T. & Reinholt M. (2009). Encouraging Knowledge sharing among employees: How Job design matters. *Wiley Interscience Periodicals, Inc*, 48 (6), 871 – 893
 - Gay, L (1996) *Educational Research: Competencies for Analysis and Application*. New Jersey: Prentice Hall
 - Gholami M.H., Asli M.N., Nazari-Shirkouhi S. & Noruzy A (2013). Investigating the influence of knowledge management practices on organizational performance: An empirical study. *Acta Polytechnica Hungarica Journal*, 10 (2), 205 – 216
 - Grant, R. M. (2002). *Contemporary strategy Analysis* (4th ed.). Oxford: Blackwell Publishers Inc.
 - Gratton, C., & Jones, I. (2004). *Research methods for sports studies*. London: Routledge.

- Hatch, N. W., & Dyer, J. H. (2004). Human capital and learning as a source of sustainable competitive advantage. *Strategic Management Journal*, 25 (12), 1155– 1178.
- Hezberg Alfred (2001), *Essentials of Management*, Fifth Edition Mc Douglas (2004).
- Irene, F.L. (2009), “A Thesis on the Impact of Training and Development on the Worker Performance and Productivity in the Public Sector Organizations: A case study of Ghana Ports and Harbours Authority,” (Submitted Thesis), *Institute of Distance Learning: KNUST*
- Kaleebi M ,2011, Human Resource Managemnt Policies and performance in the public sector: A case of UNBS
- Keke H., 2007 , Human Resource Management & Knowledge-Based Management: A study of HR practices in performance-related knowledge management
- Kent David (2006), *Strategic Management theory and Practice*, third Edition, Mc Beat
- Krejcie, R. V., & Morgan, D. W. (1970). *Determining sample size for research activities*. *Educational and Psychological Measurement*, 30, 607-610.
- Levensaler, Leighanne; Laurano, Madeline (2009), *Talent Management Systems*, Bersin& Associates
- Maritan C.A. (2001): Capital investment as investing in organizational capabilities: an empirically grounded process model. *Academy of Management Journal*, 44: 513– 531.
- McBeath H(2000), *Introduction to Organizational behavior*, Oxford University Press, New York.
- Meggison L.C (1988), *Successful Small Business Management*, fifth Edition, Business Publication Inc, United States of America.
- Miller, D., & Shamsie, J. (1996). The resource-based view of the firm in two environments: T he Hollywood film studios from 1936 to 1965. *Academy of Management Journal*, 39(3), 519– 543.
- Morgan Dimmock (2007), *Personnel Management*, third edition Macmillan Business masters, Houndline, Basingstroke, Hampshire and London.
- Morgan C (1999), *Management Principles and Practices*, 2nd edition published by inter-com published.
- Mori, J. (2006a). Designing and managing supporting industry databases. In K. Ohno (E d.), *Building supporting industries in Vietnam*, 1 , 65 – 86. Tokyo: Vietnam D evelopment Forum.
- Mubangizi D (2009), *UNBS Quality Assurance Department annual report*.
- Mugenda Olive m. And A.G.Mugenda (1999), *Research Methods: quantitative and qualitative Approaches*,African Centre of Technlogy studies, Nairobi.
- Needham Dave (2006), *Business (Advanced)*, Bath press Publishers, London.
- Newbert, S. L. (2008). Value, rareness, competitive advantage, and performance: A conceptual-level empirical investigation of the resource -based view of the firm. *Strategic Management Journal*, 29 (7), 745– 768.
- Nham & Takahashi (2010) ,organisational capabilities, competitive advantage and performance in supporting industries in vietnam , *Asian Academy of Management Journal*, Vol. 15, No. 1, 1–21, January 2010
- Nield M(2002), *Personnel Management*, fifth Edition Pitman Publishers London.
- OECD (2012). Literacy, numeracy and problem solving in technology rich environments: Framework for the OECD survey of adult skills. OECD Publishing. Retrieved from <http://dx.doi.org/10.1787/9789264128859-en>
- Oracle (2012). Eight steps to great customer experience for government agencies. An Oracle White Paper. Retrieved from <http://www.oracle.com/us/products/applications/8-steps-cust-exp-gov-wp-1560471.pdf>

- Rice, R. E., & Cooper, S. (2010). Organizations and unusual routines: A systems analysis of dysfunctional feedback processes. Cambridge, UK: Cambridge University Press.
- Robert V. Krejcie and Daryle W. Morgan (1970), Determining Sample Size For Research Activities, University Of Minnesota, Duluth Texas A. & M. University
- Sekaran, U. (2003). Research methods for business 4th edition. Hoboken, NJ: John Wiley & Sons.
- Spencer, L M. in Cherniss, C. and D. Goleman, eds. (2001) "The economic value of emotional intelligence competencies and EIC-based HR programs",. San Francisco, CA: Jossey-Bass/Wiley.
- Trochim, W.M.K. (2006). Time in research. Research Methods Knowledge Base. Web Center for Social Research Methods. <http://www.socialresearchmethods.net/kb/timedim.php>.
- Ulrich, D. and Brockbank, W. (2005) The HR Value Proposition. Boston: Harvard Business School Press
- UNBS (2010), Strategic Performance Plan for 2010/2011-2014/2015.
- UNBS (2011) performance appraisal report
- U.S Department of Labour (2007). The STEM Workforce challenge – The role of the public workforce system in a National Solution for a competitive science, Technology, Engineering and Mathematics (STEM) Workforce. Retrieved from www.doleta.gov/youth_services/pdf/STEM_Report_4%2007.pdf
- Waidi .A. A, and Dr. Yunus A. D. Technological Change And Employee Performance In Selected Manufacturing Industry In Lagos State Of Nigeria.
- Australian Journal of Business and Management Research Vol.1 No.5 [32-43] | August-2011
- Wagner, E. L., Newell, S., & Piccolo, G. (2010). Understanding project survival in an ES environment: A socio material practice perspective. Journal of the Association for Information Systems, 11(5), 276-297
- Wang P. (2010). Chasing the hottest IT: Effects of information technology fashion on organizations. MIS Quarterly, 34 (1), 63 – 85
- Wood M and Stuart Dimmock (1998), Personnel Management third edition Macmillan Business masters, Houndline, Basingstroke, Hampshire and London.
- Youssef A.B. & Dahmani M. (2010). The impact of ICT's on students' performance in Higher Education: Direct effects, Indirect effects and Organizational change. Publication of the European Commission