

FACTORS HINDERING ADOPTION OF INTEGRATED HUMAN RESOURCE MANAGEMENT INFORMATION SYSTEM FOR SERVICE DELIVERY IN THE CIVIL SERVICE IN KENYA: A CASE STUDY OF CIVIL SERVICE IN NAIROBI

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CITATION: Midida, P. K., Gakure, R. W. & Orwa, G. O. (2013). Factors hindering adoption of integrated human resource management information system for service delivery in the civil service in Kenya: A case study of civil service in Nairobi. *International Journal of Social Sciences and Entrepreneurship*, 1 (7), 610-623.

ABSTRACT

The adoption of Integrated Human Resource Management Information System (IHRMIS) has become an increasingly important tool in helping modern organizations effectively manage their human resource and promoting a client-oriented civil service which is accountable in the service delivery. Yet, factors hindering adoption of integrated human resource management information system remain an under-researched phenomenon. The main objective of the study therefore was to establish how technology hinders adoption of integrated human resource management information system for service delivery in the civil service, a case study of civil service in Kenya. The specific objective of the study was to establish the extent to which technology hindered adoption of integrated human resource management information system for service delivery in the civil service in Kenya. The study targeted both top and middle level staff of the Ministries of State for Immigration and Registration of Persons, Medical Services and Information and Technology and the Department of e-Government working in Nairobi. There was review of relevant literature to inform the discussions, conclusion and recommendations for the study. The study adopted descriptive research and also used purposive sampling technique to identify three Government Ministries and one Department for the study. The researcher used questionnaires and interview schedules to collect both quantitative and qualitative data respectively. Stratified sampling was adopted to identify category of civil servants of each Ministry and Department for the study while random sampling technique was used to identify individual staff for interview. The collected data was analyzed by use of statistical tools for data

analysis namely, MS-Excel and SPSS. Finally, the researcher compiled a report by drawing conclusions and suggesting major recommendations based on the study findings.

***Key Words:** integrated human resource management information system, service delivery, civil service in Kenya, Nairobi*

Introduction

Integrated Human Resource Management Information System

Integrated human resource management information system (IHRMIS) is a computer based application for assembling and processing data related to the human resource management (HRM) functions. As in other types of information systems, an integrated human resource management information system consists of a database, which contains one or more files in which the data relevant to the system are maintained, and a database management system, which provides the means by which users of the system access and utilize these data. The IHRMIS thus contains tools that allow users to input new data and edit existing data; in addition, such programs provide users with the opportunity to select from an array of predefined reports that may either be printed or displayed on a monitor. Reports may address any of a number of different HRM functions such as succession planning, compensation planning, performance appraisal results, aspects of career development etc. (Lawler, 2011).

According to Pakhare, integrated human resource management information system refers to the link between management and information technology. The system provides a single, accurate view of all activities including recruitment, performance management, training and development and compensation among other human resource functions. This system reduces the workload of the department as well as increasing the efficiency of the department by standardizing the process. The system plays an important role in the smooth running of the company by tracking and analyzing the time keeping and work patterns of the workforce (Pakhare, 2011).

Reasons for Adopting Integrated Human Resource Management Information System

Integrated human resource management information system adoption shapes integration between human resource management (HRM) processes and information technology. Integrated human resource management information system supports planning, general administration, decision-making, and control functions of an organization. The system also supports applications such as employee selection and placement, payroll, pension and benefits management, intake and training projections, performance and productivity evaluation. The information system increases administrative efficiency, produces reports capable of improving decision-making and enhances accountability in service delivery (Gerardine, 2006). As is the case with any complex organizational information system, an IHRMIS is not limited to the computer hardware and

software applications that comprise the technical part of the system, however, it also includes the people, policies, procedures, and data required to manage the HR functions (Hendrickson, 2005). Pirakatheeswari observed that the management of human resource has in the recent past assumed strategic importance toward the achievement of organizational growth and excellence. He further noted that as globalization advances and people are moving into the information age, organizations are expected to adopt the changing technology to be able to effectively and efficiently manage the ever increasing expectations and demands of their employees and above all, the public as the external stakeholder. All the government needed is to adopt or put in place systems that would be able to hold its employees accountable for their undertakings. This is important for two reasons; first, to allow managers to delegate tasks to team members and expect that they will deliver on their expectations; second, to avoid the manager's curse known as "micromanagement," which every employee dread. He further observed that a well-designed human resource management information system alone can provide the information and analysis within the shortest possible time and that is why many organizations are currently using the computerized IHRMIS in managing their human resource (Pirakatheeswari, 2009).

In the past decade, IHRMIS has drastically changed the human resource functions of organizations. The system, apart from providing support for mainly administrative functions such as payroll administration and attendance management, it has also enhanced many of the recruitment function sub-processes such as long and short-term candidate attraction, generation of HR information, pre-screening, and processing of applications. Online job advertisements on corporate web sites and internet, online curriculum vitae databases, different forms of electronic applications, application management systems, corporate skill databases, and information system supported workflows for the contracting phase are only but a few examples of the various ways by which human resource management information systems today support recruitment processes. The system also increases competitiveness by improving the above HR operations, and enhances accountability in service delivery (Becker & Bsat, 2006).

With the adoption and implementation of integrated human resource management information system in Malaysia, human resource activities are undertaken with greater ease and speed. Uniform human resource management policies and procedures as well as the integration of human resource information into a centralized data bank make it easier for all agencies to use this system. In addition, automation of human resource processes through IHRMIS enhances productivity through faster processing, better work environment and reduction in mistakes or errors as well as in overlapping work. The integrated human resource management information system enables the sharing of reliable information quickly.

It also allows for better and faster communication among all the agencies involved. At completion, the IHRMIS links all government agencies electronically so that human resource information from the grass root level are easily transmitted to higher levels such as the headquarters of agencies, ministries, the state secretariat offices and the public service department (PSD). Human resource activities that are less productive can be reduced and greater emphasis is directed towards accountability in service delivery (Malek, 2008).

Integrated human resource management information system is advantageous in time and labor management as well because it allows human resource professionals to use new advance technologies to adequately collect, assess and forecast employee time and work information. It enables employee's information be easily traced back so that it can be measured on a more scientific and academic level whether an employee is accomplishing the given tasks according to their fullest potential or not, and if there are any upswing that can be or should be made in order to make an employee feel more secure and exploit their full potential (Kempton, 2005).

Adoption of Integrated Human Resource Management Information System outside Kenya

Civil Service Reforms (CSR) in the Government of Jamaica consist of two main processes namely; rationalization of government structures (otherwise known as administrative reform) which involves creating strategic mechanisms and processes for policy making, policy coordination, resource mobilization and service delivery; and human resource management, which concerns with personnel issues, including appointment and promotional procedures within the Civil Service, training and career development for civil servants, compensation and performance management within the civil service. However, within the context of Jamaica, both processes of Civil Service reforms are being implemented through the administrative reform programme with the assistance of integrated human resources management information system to enhance accountability in service delivery (Rahman, 2005).

Ellen observed that it was due to mediocre performance of the Civil Service in recent times in Liberia that has made its people lose confidence in the Government. She further asserts that given the above experiences, the new Civil Service that the Government seeks to create would be transparent and accountable to the people. The de-politicization and professionalism of the service as envisioned in this strategy is a laudable entry point to the evolution of a new culture of "work and forward-looking service which would adopt the use of integrated human resources management information system in undertaking its service delivery (Toga, 2006).

Adoption of Integrated Human Resource Management Information System in Kenya

In 2001 the Public Service Commission of Kenya (PSCK) was linked to World Wide Web through the Treasury with an aim of enhancing communication across ministries and departments. The first batch of ten computers and two printers were purchased that year, the Local Area Network (LAN) was limited to administrative offices mainly the Chairman's and Secretary's office. In the year 2004, through the Public Service Reforms Program (PSRP) the Commission became one of the pilot departments for rolling out the Integrated Payroll Personnel Database (IPPD) to deal with compliment control, establishment and personnel emoluments. This was followed by the introduction of the Integrated Financial Management Information System (IFMIS) to assist in financial management.

In 2007, the Public Service Commission of Kenya launched the recruitment and selection database system which allowed online job application for any of the jobs advertised from Ministries/Departments. The recruitment and selection system was developed by information and communication technology (ICT) officers drawn from the Public Service Commission of Kenya and from various other Ministries/Departments in the civil service. The development of the system entailed; mapping the process to identify duplicating activities and redundancies, benchmarking against best practices with countries and organizations that successfully automated similar process such as Singapore, Malaysia and India Designing, developing and implementing the system among other stages of the system development. Some of the expected benefits of the system included enhanced efficiency, effectiveness transparency and accountability in service delivery in the civil service (Wachira, 2010).

In his study on the adoption and use of integrated human resources management information system in Kenya, Mwebi observed that banks and other organizations have strived to attain competitive advantage through adoption and usage of appropriate integrated human resource management information system to enhance the level of accountability in service delivery (Mwebi, 2005).

Statement of the Problem

Adoption of integrated human resources management information system has become an increasingly important tool in helping modern organizations effectively manage their human resource and promoting a client-oriented civil service which is accountable in service delivery. Many organizations have gone beyond the traditional functions and developed integrated human resource management information systems, which supports recruitment, selection; hiring, job placement, performance appraisals, employee benefit analysis, health, safety and security. However, to date, various factors have hindered adoption of integrated human resource management information system for service delivery in the civil service remains elusive and under-researched phenomenon (Cate, 2011).

In Sri Lanka, the Government Ministries are hindered from adopting integrated human resource management information system for service delivery by the impediments that arise as a result of many barriers within the civil service, most of which include the internal barriers such as the civil service culture, the government policies, technology and inadequacy of resources. There has also been the influence of external factors such as societal culture and the larger technological growth among others (Mahesha & Robyn, 2006).

However, the Government report on adoption of integrated human resource management information system for service delivery in the civil service in Kenya indicated that the practice has been an elusive phenomenon. The report further observed that for the Government to meet the needs and aspirations of its citizens, it should promote a client-oriented civil service that is both ethical and accountable through adoption of integrated human resource management

information system. Even though numerous methodologies have been proposed, Kenyan organizations still failed to effectively deal with information systems adoption and implementation and related challenges (GoK, 2006).

Hackney and Little observed that information systems adoption and implementation in many organizations are significantly hindered by organization leadership, policies, technology, political and power behavioral situations among other factors within organizations (Hackney & Little, 2006). This study intends therefore to establish the extent to which technology hinders adoption of integrated human resource management information system for service delivery in the Civil Service in Kenya.

General Objective

Various factors hinder adoption of integrated human resource management information system for service delivery in civil service. This study intends therefore to establish how technology hinders adoption of integrated human resource management information system for service delivery in the civil service in Kenya.

Specific Objectives

1. To establish the extent to which technology hinders adoption of integrated human resource management information system for service delivery in civil service in Kenya.
2. To establish the extent to which organizational leadership hinders adoption of integrated human resource management information system for service delivery in Civil Service in Kenya.
3. To establish the extent to which government policies hinder adoption of integrated human resource management information system for service delivery in Civil Service in Kenya.

Theoretical Review

Theory is a set of statements or principles devised to explain a group of facts or phenomena, especially one that has been repeatedly tested or widely accepted and can be used to make predictions about natural phenomena. Theory is also a belief or principle that guides action or assists comprehension or judgment (Farlex, 2009). Houghton defined theory as a set of statements or principles devised to explain a group of facts or phenomena. Most theories that are accepted by scientists have been repeatedly tested by experiments and can be used to make predictions about natural phenomena (Houghton, 2005).

Technological Innovation Theory

Inman in his study on importance of innovation: diffusion theory, quoted Rodgers (1995) as defining innovation as “an idea, practice, or object that was perceived as new by an individual or unit of adoption”. In this definition, the distinctions that separate the article use of “innovation” against “technology”: was that innovation may be an idea, instead of a mechanical creation; it

must be perceived and interpreted to have value; and those doing such interpretation have agency in whether the innovation proceeded in any setting. He further explained that any innovations have characteristics which explain the rate of their adoption: for instance, *relative advantage*: “the degree to which an innovation is perceived as better than the idea it superseded”, *compatibility*: “the degree to which an innovation is perceived as being consistent with existing values, past experiences, and needs of potential adopters”, *complexity*: “the degree to which an innovation is perceived as difficult to understand and use”, *trialability*: “the degree to which an innovation may be experimented with on a limited basis”, and *observability*: “the degree to which the results of an innovation are visible to others.” All these characteristics or levels of innovation affect adoption of change in one way or the other (Inman, 2009).

Technology Trust Theory

According Melanie, information technology is increasingly used to mediate team-working, he quoted Stanton and Ashleigh (2002) as arguing that team members were often reluctant to trust technology until they gained experience from using a system and have had positive meaningful feedback from it. Melanie further quoted Friedman as noting that technology was not value neutral but provided a form of ‘fittingness’ and reliability that followed from features of technology (Friedman, 2000). In his study on user acceptance of information technology, Melanie further quoted Davis (1993) as observing that perceived usefulness of a technology/information system whether it performed its designed tasks, was represented by fifty percent (50%) which was more than the percentage represented reluctant and the ease of use of the system (Melanie, 2006).

Technology trust can be defined as an individual’s willingness to be vulnerable to a technology based on person-specific expectations of the *technology predictability* (ability to control the technology in the future). The *technology predictability* may also mean an individual’s expectation of the technology’s consistency of performance based on past experiences and future expectations. To assess technology predictability, the individual created a summation of all past experiences with technology and used these appraisals to forecast how the technology would perform at a future point in time. In the context of trust in technology, predictability is based on an individual’s ability to forecast that the technology would perform as expected, reliability, and utility as moderated by the individual’s predisposition to trust the technology. A more focused understanding of how technology trust relates to HRIS deployment offers the opportunity to develop a broader range of strategies to improve implementation initiatives. Because organizational success in a knowledge economy is disproportionately dependent on employee performance, it is also becoming increasingly important to understand how technology trust impacts employee engagement with the HRIS. (Lippert & Swiercz, 2005).

Technology reliability on the other hand is an individual’s confidence that the technology would consistently perform in situations that involve some degree of dependence and risk. In situations where individuals depended on the technology for the completion of a job-related task, the individual was placed in a position of vulnerability if the technology did not function as

expected. Besides technology reliability, *technology utility* is an individual’s faith, perception, and assessment of the usefulness of the technology. Faith, in this context, would be the belief that the technology would be consistently useful (Lippert *et.al*, 2005).

The conceptual framework of the study is the system of concepts, assumptions, expectations, beliefs, and theories that support and informs the study (Robson, 2006).

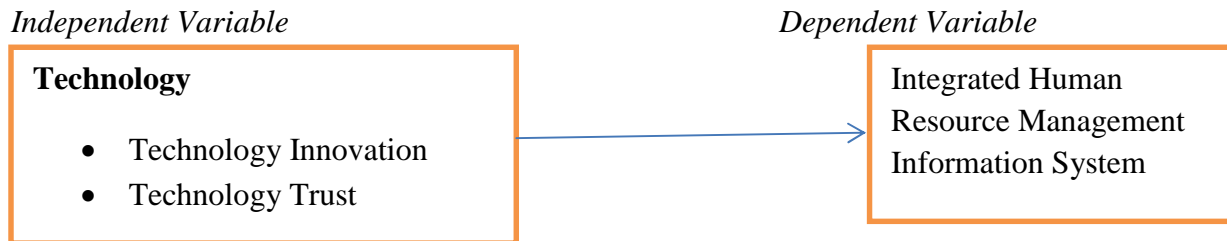


Figure 2.1 Conceptual Framework

The framework is therefore a research tool intended to assist a researcher to develop awareness and understanding of the situation under scrutiny and to communicate this. As with all investigation in the social world, the framework itself forms part of the agenda for negotiation to be scrutinized and tested, reviewed and reformed as a result of investigation (Guba & Lincoln, 2005).

Empirical Literature

Technology and Adoption of Integrated Human Resource Management Information System

A study Galliers and Leidner on acquisition and adoption of human resource management information system software indicates that already sold and delivered soft-wares to the major customers as little as thirty percent (30%) of them may be adopted and implemented in service. Slow adoption of new software may be symptomatic of lower than desirable competence of computer end-users. Slow adoption could be due to push-back from middle level managers and computer users (staff) who resisted installation of new software because of lack of the required operational skills. Have you heard people say: “Please don’t change what we are using now, we are not yet comfortable or technologically proficient with existing software.” Similarly, skilled computer end-users have strong readiness to adopt the latest versions of their well-used software technology to be able to perfect their level of accountability in service delivery (Galliers & Leidner, 2005).

A study by Kernaghan and Justin on adoption of integrated human resource management information system indicated that the use of management information technology disposes public organizations to acquire specialized skills and substantial human capital investment. Departments and agencies have to compete within their own government for public funds to

support information technology (IT) investment and with the private sector for technologically skilled employees if they have to achieve the desired objectives of the adoption of such information systems (Kernaghan & Justin, 2007).

Research Methodology

Research Design

The study adopted descriptive research design because such a design concerned with describing the characteristics of a particular individual or of a group. Descriptive research design also concerned with specific predictions and with narration of facts and characteristics concerning individual, group or situation (Kothari, 2009). The researcher therefore had strong conviction that descriptive research design would form the best research design for the study because the study strived to seek the opinion of various individuals and/or group of individuals on factors hindering adoption of integrated human resource management information system for service delivery in the civil service in Kenya.

Population

The population for the study generally comprised the civil servants from three Ministries and one Government department working in Nairobi. These included two thousand five hundred and sixty two (2,562) officers from the Ministry of Medical Services, four hundred and seventeen (417) officers from Ministry of Information and Communication, one thousand nine hundred, sixty seven (1,967) officers from Ministry of State for Immigration and Registration of Persons and forty one (41) officers from the Department of e-Government.

Data Collection Procedures

The study intended to collect both quantitative and qualitative data from the two levels of respondents/staff (top and middle level managers) from each of the three selected Government Ministries and one department. The questionnaires were administered to the identified respondents by the trained research assistants who took the respondents through the questionnaire by explaining any areas of difficulties to the respondents. The research assistants immediately collected the questionnaires after they were duly filled. On the other hand, the research assistants administered and left the interview schedules with the top managers for filling in and later collected them at agreeable time but not compromising the timeframe within which the thesis report was supposed to be completed and submitted to the respective authorities for examination as per the work-plan. The research assistants were always available for guidance to even top level managers.

Data Presentation and Analysis

The guiding factors in data analysis in this study were based on whether the data was qualitative or quantitative. The collected raw data particularly the qualitative data was first coded for ease of translation into quantitative data and then further analyzed and tabulated using SPSS and MS-

Excel software. Variables were defined and frequencies run on the version 23-SPSS software and finally exported to Excel for generation of tables and figures to facilitate data analysis.

The study used correlation to establish relationship between various independent variables and the dependent variable for example the relationship between technology and adoption of integrated human resource management information system in the civil service in Kenya. Kothari (2009) observed that the relationship of a set of all independent variable in relation to the dependent variable is known as multiple correlations while partial correlation measures a relationship between a dependent variable and a particular independent variable holding all other variables constant. In this case, partial correlation was used to measure relationship between independent variable (technology) and dependent variable (integrated human resource management information system) by responding to the following question;

Does technology hinder adoption of integrated human resource management information system for service delivery in civil service in Kenya? The relationship would be determined by regression equation; $y = \alpha_4 + \beta_4 x_4 + e$ where β_4 is the coefficient of correlation, x_4 is technology and y is the integrated human resources management information system. The independent variables organizational leadership, resources and government policies were held constant. To test the *significance* of each of the partial regression coefficient the prediction would be that each independent variable has no hindrance on integrated human resource management information system that is $\beta_j = 0$ otherwise $\beta_j \neq 0$; $j = 1,2,3,4$. If $t_{calc} \geq t_{crit}$ then the prediction is rejected hence there is hindrance at the given level of significance (5%).

Findings, Presentation and Data Analysis

Out of the total one hundred and fourteen respondents who answered the administered questionnaires, about sixty two percent (62%) of them were male while another thirty seven percent (37%). There was a paltry one percent (1%) declined to make known their gender.

Technology Trust Theory

There was about thirty percent (30%) of the respondents who either strongly agreed or agreed that the Ministry/Department was reluctant to trust integrated human resource management information system because of its difficulty to yield meaningful results. The other sixty one percent (61%) of them either expressed strong disagreement and disagreement while six percent (6%) and three percent (3%) were undecided and remained non-committal respectively. The literature review in chapter two by Melanie (2006) indicated that information technology was increasingly used to mediate team-working. Melanie quoted Stanton and Ashleigh (2002) as arguing that team members in the adoption of integrated information system were often reluctant to trust technology until they have gained experience from using a system and have had positive meaningful feedback from it.

When asked the question on the extent to which inadequate technology/infrastructure hindered adoption of integrated human resource management information system for service delivery in civil service in Kenya, about fifty eight percent (58%) of the respondents observed extremely high and high. The other twenty three percent (23%) observed average while nineteen percent (19%) indicated extremely low and low. Gunasekaran (2005) observed that companies needed to invest large amount of money for redesigning internal organizational and technical/infrastructural processes, changing traditional and fundamental product distribution channels and customer service procedure and training staff to achieve IT-enabled change management. He further noted the following as some of the problems often cited in the literature both by the researchers and practitioners when developing an IT-integrated change management: lack of integration between IT and business model, lack of proper strategic planning, poor and inadequate IT infrastructure, insufficient application of IT in virtual enterprise, and inadequate implementation knowledge of IT integrated change management.

Since the majority (58%) of the respondents observed extremely high and high as the extent to which inadequate technology/infrastructure hindered adoption of integrated human resource management information system for service delivery in civil service in Kenya, the opinion which concurred with Gunasekaran (2005) that companies needed to invest large amount of money for redesigning internal organizational and technical/infrastructural processes. Therefore, the Ministry/Department is likely to face challenges in adopting the integrated human resource management information system in their operations due to inadequate technology/infrastructure for such adoption.

Table 1: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.866	.250		7.452	.000
Rate at which inadequate technology/infrastructure hinders adoption of integrated HRMI system	.146	.092	.149	1.584	.116

a. Dependent Variable: Factors hindering adoption of IHRMIS for service delivery in the civil service in Kenya. From the above table, it was observed that $t_{calc} \geq t_{crit}$ ($1.584 \geq 0.116$), therefore since t-calculated is greater than t-critical then the prediction that technology has no hindrance on the adoption of integrated human resource management information system for service delivery in the civil service in Kenya is rejected, hence there is hindrance at five percent (5%) level of significance.

Conclusions

The researcher draws various conclusions from the study as described herewith; a) that inadequate technology/infrastructure hinders adoption of integrated human resource management information system. This was confirmed by the response from fifty eight percent (58%) of the respondents who observed extremely high and high while other twenty three percent (23%) also observed average as the rate at which inadequate technology/infrastructure hinders adoption of integrated human resource management information system. b) that this inadequacy in technology/infrastructure was likely due to the observed thirty percent (30%) reluctance on technology trust by the Ministry/Department.

Recommendations

Just as observed by Gunasekaran (2005) that companies needed to invest large amount of money for redesigning internal organizational and technical/infrastructural processes, changing traditional and fundamental product distribution channels and customer service procedure and training staff to achieve IT-enabled change management. The Government of Kenya should as well strive to invest large amount of money to redesign its technical/infrastructure processes to be able to accommodate adoption of integrated human resource management information system.

The management in the Government Ministries/Departments should develop general faith in integrated human resource management information system to facilitate its adoption and implementation. The Government should also be prepared to spend much of its financial resources in training and development of its civil servants on the benefits of adopting integrated human resource management information system in its operations. The training and development programmes should focus on building of trust in technology among the key change agents in the Government as this seem to be the major hindrance to the adoption of the system.

References

- Becker, A.M. & Bsat, M. Z. (2005). "A DSS Classification Model for Research in Human Resource Information System," *Information System Management*, 19(3): 41-50.
- Cate, J. (2011). *Exploring the Public Sector Adoption of Human Resources Information System*, Emerald Group Publishing Limited Vol. 111, Number 3, 2011, pp. 470-488.
- Farlex, G. (2009). *The Meaning Theory: By the Free Dictionary*. Harper Collins Publishers.
- Galliers, R. & Leidner, D. (2005). *Strategic Information Management: Challenges and Strategies in Managing Information Systems*. New York: Butterworth Heinemann Ltd.
- Gerardine, D. (2006). *Human Resource Information Systems-A Current Assessment: MIS Quarterly* Vol. 10, No.1 pp. 15-27.
- Government of Kenya (2006). *Handbook for Civil Service Staff Induction*, Nairobi: Kenya Institute of Administration Publishers.
- Guba, E. & Lincoln, Y. (2005). *Fourth Generation Evaluation*. London: Sage Publications.
- Gunasekaran, A. (2005). *European Journal of Operational Research*, Vol. 159, Issue 2, pg. 269–295.

- Hackney, R., Little, S. (1999) "Opportunistic Strategy Formulation for Information System/Information Technology Planning", *European Journal of Information Systems*, Vol. 8 pg.119-26.
- Hendrickson R. A. (2005). "Human Resources Information Systems: Backbone Technology of Contemporary Human Resources" *Journal of Labor Research* Vol. XXIV.
- Houghton, M. (2005). *The American Heritage Science Dictionary*, USA: Houghton Mifflin Company Publishers.
- Inman, A. (2009). *The Importance of Innovation: Diffusion Theory and Technological Progress in Writing Centers*, South Carolina: Lawrence Erlbaum Ltd.
- Kempton, J. (2005). *Human Resource Management and Development: Current Issues and Themes*. Ontario: Palgrave Macmillan Publishers.
- Kernaghan, K. & Justin, G. (2007). *Integrating Information Technology into Public Administration: Conceptual and Practical Considerations: Publique Du Canada* Volume 47, No. 4 (Winter/Hiver 2004).525-546.
- Kothari, C.R. (2009). *Research Methodology: Methods and Techniques*, Second Revised Ed., Rajasthan: New Age International Publishers.
- Lawler, J. J. (2011). "Computer-Mediated Information Processing and Decision Making in Human Resource Management." In *Research in Personnel and Human Resources Management*, vol. 10, CT: JAI Press, 1992, 301-45.
- Lippert, K. & Swiercz, M. (2005). *Human Resource Information Systems (HRIS) and Technology Trust*, *Journal of Information Science*: Vol. 31; 340.
- Mahesha, K. & Robyn, L. (2006). *Barriers to Adopting ICT and e-Commerce with Government Ministries in developing countries: An Exploratory Study in Sri Lanka*. Australia: University of Western Sydney Press.
- Malek, S.B. (2008). *Globalization and Human Resource Development in the Malaysian Public Service*, Malaysia: Research and Planning Division Public Service Department.
- Melanie, J. (2006). *Trust and Technologies: Implications for Information Technology Supported Work Practices*, Southampton: University of Southampton Press.
- Mwebi, V. M. (2005). *The Extent of Use of Human Resource Management Information Systems and Efficiency in Selected Banks and other Organizations in Nairobi*, Nairobi: Daystar University Publication.
- Pakhare, J. (2011). *Human Resource Management Systems*. California: Cornell & Associates Ltd.
- Pirakatheeswari, P. (2009). *Emerging issues in Human Resources Management*. Kuwait: IT Company Ltd.
- Rahman, A.T. (2005). *Civil Service Reform (CSR): A UNDP Discussion Paper*, Sweden: Vaxholm Ltd.
- Robson, C. (2006). *Real World Research: A Resource for Social Scientists and Practitioner Researchers* 2nd ed. Oxford, UK: Blackwell.
- Toga, G. (2006). *National Human Development Report*, National Human Development Report.
- Wachira, F. (2010). *Enhancing Professionalization of Human Resource Management in the Public Service in Africa*, A Research Paper: Nairobi, Kenya.