

A Critical Analysis on the Impact of IT to the Overall Performance of Executive Secretaries in the Public Sector of Oman

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ABSTRACT

Information technology provides effectiveness of functioning and better productivity in the operations of an organization and public sector is not an exception. In the public sector of Oman, the use of information technology has made a specific role that has added to the quality and quantity of performance that has enriched the productivity of the public sector of Oman. The study here evaluates the impact of IT to the overall performance of executive secretaries in the public sector of Oman. There are different stages that are adopted by the researcher in order to attain the objectives. The study adopts data collection from 100 executive secretaries that are chosen from five of the public sectors to provide opinion regarding the topic of study. The research has presented a detailed literature review of the topic that clarifies the subject on which the topic is based and a critical evaluation of the gathered literature is also provided through the study. The study here adopts a descriptive research that is conducted through survey which is done through the prepared questionnaire distributed to the selected respondents. The opinion is presented through data analysis and the results are presented through the structure of chart and tables for easy identification of the opinion, views and suggestions from the participants that have added to the attainment of the objective. The main findings of this study suggest that the executive secretaries ought to be trained in IT skills and motivated to improve their innovation and their work performance. Besides the online IT training, this study recommended the improvement of the automation in the daily tasks of the executive secretaries in Oman.

Keywords: Executive Secretaries in Oman, Executive Secretary, IT impact on Executive, Secretary, Executive Secretary's Performance

INTRODUCTION

The role that IT carries in the present environment is to be appropriately identified which can bring in vast change in the working model and also in the performance and productivity of the executives that are to be aptly measured and accepted for the future development of the public sectors of Oman. This will lead to the development of the sector to the international efficiency. The studies have examined the role of IT and the way it promotes collaboration and also information sharing inside and across organizational boundaries. It is a sphere that can be adopted to enrich the quality and timeliness of the decision making and organizational

intelligence and promoting the performance of the organization. It has grown to the primary means managing and also reducing the uncertainties that surround the administrative processes and production (Schwalbe, 2013). Technology has conceptualized in terms of complexity in the technology and variability and its interdependence and the manageability that it produces. Therefore, it should be viewed broadly as the procedure of managing the risk and also uncertainty which is necessary to convert the inputs of an organization to output. The major IT efficiencies are the cost and time savings that permits employees perform their tasks in a professional manner; and expanding their role in the organization due to the advancement of IT to analyze and gather the data (Tran, 2008). With application of IT, reshuffling of the task is also possible among the employees. Information technology is used to make decisions in the organization and it is the fastest way of communication and the enriched speed in the decision making (Montealegre, 2011). It is the effectiveness of the information technology and also the efficiency in adopting it to utilize it towards the competitive advantage that marks the potential of the sector in the public and private firms (Ashmore, 2011). With the use of information technology, there is a wide development in the approach in transforming the operation to improve the delivery of service, the systematic analysis of the impact of the policy measures, and the management.

The public sector is the composition of the various governmental services that provide benefit to all of the society. In Oman, it includes the Ministry of Environment and Climatic Affairs, Oman Chamber of Commerce and Industry, Public Authority for Radio and TV, Public Authority for Consumer Protection, Ministry of Sport Affairs, Public Authority for Civil Defense and Ambulance, Ministry of Heritage and Culture, Royal Oman Police (ROP), Ministry of Social Development. These exist to provide service for the citizens of Oman. The public sector supports all the three arms of the government like the executive arm, the legislature and the judiciary. The study here includes five of the public sectors namely ROP, Oman Chamber of Commerce and Industry, Public Authority for Consumer Protection, Ministry of Environment and Climatic Affairs, and Ministry of Social Development.

It is the executive secretary who monitors the projects undertaken by the sector which tracks the budget for the department of each sector. Departmental operations are supported with the budgetary guidelines by these executive secretaries and constructively deal with conflict and effective resolutions (Mykytyn, 2012). These tasks which were manual before are under the clutches of the technology and based on the use of the software in the sector. The executive secretaries make use of the technology to effectively and efficiently handle the task which will bring in more clarity and accuracy for the specified work. IT has changed the work and the related task to information and information processing (Fitzsimmons, 2012). The executive secretary maintains the executive's agenda and assists in planning the appointments and conferences in the department and outside. With the use of the available technology, the executive secretaries are able to exploit the IT for the achievement of the operational objectives.

RATIONALE OF THE STUDY

Information technology was employed to achieve routine clerical and administrative activities like data processing related to accounting and bookkeeping. IT has been also used to monitor the internal and external environment and as a support factor for other organizational system component. In the earliest stages, it was only applied to the simple task but was discouraged in the usage of business strategy like that of the enrichment of the company's position against

competition and providing the managers with better information for effective decision making. Today, the organizations make use of technology with the advancement and more attribute that helps the organizations in solving the business problems to meet the requirements to adapt to the changing business structure and environment and also to gain competitive advantage with the modern technology. In Oman, public sector information technology is highly adopted to suit the various needs of the organization through the executive secretaries and their organizational activities to develop solutions for the business problems. In addition, IT has been used to improve the efficiency and effectiveness of the decision making process to generate quality and productivity and to attain dynamic stability and complete for new markets. It has become significant to make an effort to identify the role of IT produced by the executive secretaries of the public sector in Oman and this calls for the interest in the subject of study.

AIM AND OBJECTIVES OF THE STUDY

The aim of the study is to critically evaluate the impact of IT to the overall performance of executive secretaries in the public sector in Oman. Thus, this study seeks to explore the use of the technology in the public sector and the level to which its implementation can be improved and the adoption of the IT by the executive secretaries and the enhancement that can be made in this sphere.

OBJECTIVES OF THE STUDY

- To identify the impact of IT on facilitating job access of the executive secretaries in the public sector of Oman.
- To estimate the impact of information technology on the performance and productivity of the executive secretaries in the public sector of Oman.
- To critically evaluate the impact of IT on the overall performance of the executive secretaries in the public sector of Oman.
- To make recommendations on the improvement of the use of IT for the effective performance of the executive secretaries in the public sector of Oman.

RESEARCH PROBLEM

Information technology is the sphere that has added to the potential of the working pattern of the executive secretaries in the public sector in Oman and the large number of secretaries makes use of information technology in Oman. It becomes essential for the department and also for the public sector to identify the level to which it is adopted in the organization and the department, and also the role of information technology to the overall working pattern of executive secretaries in the public sector in Oman. The impact of the information technology on the performance of executive secretaries and the role that it plays in the pace, accuracy, involvement, usage; and efficiency it creates in the working structure of the executive secretaries and also the private sector are essentially significant in Oman. The public sector identifies lack of productivity in some areas that are enabled with IT although information technology is being adopted in most of the areas. There is the need for more software implementation that will generate productivity in the public sector and more services that are to be provided through the use of information technology. The performance of the executive secretaries in certain areas lack productivity that needs to be enriched with the use of information technology which will be made efficient with the implementation and application of information technology.

Research Questions

1. What is the impact of IT on facilitating job access of the executive secretaries in the public sector of Oman?
2. How much impact has IT on the performance and productivity of the executive secretaries in the public sector of Oman?
3. What are the procedures to critically evaluate the impact of IT on the overall performance of the executive secretaries of Oman?
4. What recommendations to propose on the improvement of the use of IT for the effective performance of the executive secretaries in the public sector of Oman?

LITERATURE REVIEW

Role of Executive Secretary in the Public Sector

The executive secretaries of the public sector work independently without the onsite supervision and functions as the office manager with the responsibility for the day to day operation of the department work of the public sector and provide full support to the entire employees of the department. The executive secretary of the public sector provides administrative support to government board in the public sector regarding the policy and advisory committee and the secretary will coordinate the project management role and also the policy development (Karake, 2010).

The Governance Environment of the Executive Secretary

The executive secretary coordinates and volunteers the workers and routinely handles any issue under the difficult circumstances even in the unsettled environment of the department. This designation and as the liaison between the organization management and the regional coordinator and the various directors of different departments and assists the logistics and the meeting of the regional members of the various departments and also does correspondence directly to the department headquarters (Kleiner, 2012). It is the duty of the executive secretary to maintain the corporate accounts and disburse funds and also to handle the corporate financial transactions based on the national account standards and also based on the accountant recommendations (Ferguson, 2013). The executive secretary participates in the preparation of the corporate budget and handles the billing and also collection of the funds and maintains the corporate assets in order to audit and maintain good business and financial relationships with various banking institutions, and credit card companies and also maintains a good corporate relationship (Cole, 2013) with various companies which provide resources and facilities for the public sector (Miller, 2012). The executive secretary maintains the website of the particular department in which he works for the public sector and assists in the editing, writing, distribution and production of the newsletters and also negotiates for direct mailing and printing various publications related to the public sector and various departments (Davarpanah, 2011). With aggressive competition and the global market places in the changing environment the business structure need to be more flexible and responsive to match the rapid change in the markets and technologies. It also becomes essential for them to be adapted to the latest innovations to survive and prosper in the complex uncertain business environment. It is the executive secretary that provides the entire necessary information and forms to the payroll service and also accountants and remits and coordinate the payment for the employee benefits and make sure that the benefits and compensations are paid promptly to the employees of the department in the public sector and these forms are prepared appropriately and is submitted in the timely manner (Jaycee, 2010).

It is the executive secretary that manages the bulk mailing format and the report obligations related to the department and collect request from the individuals and organizations for the scientific publications (Munchus, 2013) and also manages the various software that are used in the department with the coordination of the IT department (Westney, 2010). It is the executive secretary who is responsible for taking the minutes of the government board accurately and provides correct record of the procedures and decisions made in the meeting (Berry, 2011). Assisting the general manager with the customer inquiries, problem resolution and updating the district webpage on the regular basis; and assisting the district personnel in the preparation of the meeting are all part of the tasks that are undertaken by the executive secretaries (Chloe, 2015).

Public Sectors in Oman

The public sector in Oman is composed of different governmental services that generates much benefits to the society of the nation and it includes Ministry of Social Development, Public Authority for Civil Defense and Ambulance (PACDA), Ministry of Sport Affairs (MSA), Public Authority for Consumer Protection, Public Authority for Radio and TV (PARTV), Oman Chamber of Commerce and Industry, Ministry of Environment and Climatic Affairs (MECA), Royal Oman Police, and Ministry of Heritage and Culture (MHC). All the three arms of the government which are the executive arm, the legislature and Judiciary are well supported by the public sector of Oman that is through the adoption of information technology by the entire department of public sector in Oman, and has enabled the enrichment of the quality and effectiveness of the various services (Parker, 2013) which is specifically adopted by each of the sector which is based on the activities that are undertaken by the departments included in each of the sector.

The use of the information technology in the public sector has enabled to deal with the challenges and has become the cornerstone for the sector reforms and also to increase the speed and reliability of the operations and to strengthen the departments of each of the public sector (Alegre, 2012). It is the use of the information technology in all these public sectors has enabled to meet the expectations of the public and to improve the performance of the department (Chapman, 2012) and it is this facility that has enabled to provide solutions through various means (Grunberg, 2013) and it has provided the mechanism to enable to clarify the objectives and it is a useful tool for setting priorities and clarifying the expected results of the public sector.

Through the use of information technology, the public sector of Oman is able to improve the monitoring of performance through the signalling device and provides mechanism for performance and progress (Chang, 2013). It also generates evaluations and explanations for the programs and also highlights the problems and issues in each of the areas in advance that permits the reduction of the issues which enables the effectiveness of the performance of the activities of the department (Brooke, 2014). It also permits cost effectiveness and permits focusing greater detail on planning in management and budgeting and also in the focus given to the policy design and delivery (Byrd, 2012). It is the use of the information technology that permits the focus on the long term planning through the strategic plans and this technology enables the easy handling of the activities and its systematic functioning (Peslak, 2012). The effort of the public sector is becoming more effective and efficient and also accountable with the use of information technology and with its initiatives in various spheres, it provides the provision of more quantitative information that generates visible information with the

fulfilment of the improvement of the public sector performance (Lozano, 2014). The use of the information technology is the strong evidence of the enriched transparency and its support of the approach that provides the objective information that shift the nature and quality of the performance of the public sector. The use of the information technology has improved the transparency and efficient accountability to the legislature and to the public has the key objective to reform the initiatives and there is also the enriched amount of information given to the legislature and to the public and also the performance generated (Talluri, 2013) by each of the department of the public sector (Hodgson, 2010).

Use of IT in the Public Sector

Information technology is being used in the public sector to share information through technology based systems with the public and the suppliers; and it has changed the nature of the relationship and produced more effective integration of the use of technology in the sector with value added processes (Uchida, 2012). It also has enabled the public sector to create, develop and produce market, and deliver enhanced products and services with new and more value prepositions based on information and has augmented cognitive processes in producing knowledge through information (Finlay, 2011). It provides management and the executive with adequate information for the support on the development implementation and evaluation of the different strategies adopted by the public sector (Erdem, 2012). The public sector has adopted information technology to realign the activities and processes and the relationships to attain performance breakthroughs (Torres, 2012) through the process design and has changed the way the information is adopted by the sector and thereby changing the overall department activities with value adding processes through the network redesign and extended the market and creation of new products which are based on information with the changing role of the department of the public sector with the introduction of new information enabled model through the scope redefinition.

With the use of the information technology, there is also the management effectiveness through the use of the management information systems (Boughey, 2012). The knowledge discovery is enabled through the use of the information technology that generates new knowledge and understanding about the existing activities (Kwun, 2011) that take place in the public sector and the business advantage through change is adopted for the internal business activities integration by the processes, job and various activities and the organization redesign through the adaptation of information technology in the public sector (Kelleher, 2013). The tension and stress at work is much reduced with adoption of information technology that most of the processes and activities which are done at a greater speed with the use of technology cannot be done manually in this pace. Information technology speeds up the process of service activities that says both public sector's and public's time (Demetrius, 2013).

Information technology is an effective platform for the coordination mechanism that can promote partnering and other facilities for the information synergies (Brown, 2013). In the public sector, there is a use of the information technology which has introduced the online accounting systems and various other systems that permits the departments to share the files over the web (Abraham, 2012) and with the use of this system, it is possible to enhance the capability and gain advantage and improve the services to the public and thereby providing better service (Powner, 2010). Synergy is brought in through the awareness of knowledge from ignorance that is brought in through the internally driven knowledge discovery through the use

of the information technology which focuses on the effectiveness with the active learning which is also adopted for the problem solving with the use of decision support tools and interaction and coordination (Keen, 2012). There is a collaborative process in the public sector with internally driven meta knowledge discovery and the value elicitation making use of the information technology for the objective identification and facilitation reducing much efficiency in the department (Labrow, 2010). There is the knowledge creation in the department with information infrastructure using various networks like internet and intranet and various data sources that make use of the intellectual capital management and various other collaborations that produce efficiency in the department producing synergy (Brakel, 2011).

Compatibility is a tent with information system seamlessly working together with people, and the various technologies that permit the effective functionality that facilitate synergistic interaction (Peled, 2010). It brings the management and the resources together that encourages and directs the interaction towards the organizational goal with the integrated whole and planning with the various resources that includes the decision rights and organizational structure to ensure that the public resources are properly combined (Attaran, 2013). The synergy is produced by the strengthening of the effects of the resources by generating through the resources that produce favorable conditions for the success of the resources for the use of information technology. Synergy is produced in the organizational subsystem quality with the successful accomplishment of the organizational goal for the effective and efficient storage, analysis and reporting of the high quality data which produces business analytics and subsystem quality in the public system (Haley, 2014). There is much benefit in the public sector that is received by the information technology with the coordination of the subsystem that produces organizational value (Beheshti, 2014).

The information technology in the public sector and in the various departments brings in compatibility which is achieved when resources are capable of interacting and coordinating the effectiveness and the synergistic interaction is produced with the integration effort that is brought in by the management (Gould, 2012) within the public sector to initiate, main what were the interaction among the various resources in the public sector.

Through the adoption of information technology, it is possible to validate the conceptual design and control the processes and technology involved in it and also the resources that participates in it and generate recommendations regarding the information technology governance and the various operations and also the organization (Carroll, 2016) of the departments of the public sector in Oman. The public sector is increasingly using the information technology to support and carry out various aspects of the services that they broke your information through this means. In the public sector the executive secretaries and the departments uses information technology in order to have electronic invoicing, commodity classification, electronic record management, inter-operability, authentication of controls, online security, access controls, service continuity and Audit trails (Swanson, 2010). Through commodity, it is structured through coding mechanism which makes it easy to identify the services that are similar in function and it enables more accurate catalogue searching. The interoperability permit the smooth transition of data between the systems and it permits the efficient data flow (Mckayla, 2015). It is even possible to have information technology solution search and also the selection and performance assessment of the various services and the measurement of the performance; the development of the services and its efficiency; and also the rest of the environment in it

through the application of information technology in the public sector and throughout the departments in each of the sectors (Huang, 2015). The use of the information technology has enabled the public sector to connect cheaply with the public and the partners and suppliers to almost anywhere in the world and also has enabled low cost linkages with the various stakeholders permitting to track the progresses online (Jamileh, 2013) and has enabled effective internal integration of information overcoming the barriers with the improved integration of internal processes with the information based products and services (Hyde, 2013). Animation for simulation of urban environment and video for analysis and design work is coordination through technology that shows the visualizing effect of urban growth and transformation (Sariah, 2011).

The use of information technology in the public sector has facilitated to have improved memory in the organizational level through the use of technology and the ability to capture and integrate explicit knowledge by adopting methods to easily qualify, communicate, store and retrieve the data which is necessary in the public sector (Jean, 2013). With the use of information technology, it is possible to have the ability to apply past and current knowledge and also to have the utility of knowledge qualification through the technology and the use of information systems with a single database repository that transmits, and communicate the relevant information digitally for the decision making in the organization (Jago, 2012). The management practices can be developed over time. The knowledge base for the application of the information technology is driven by the process oriented tasks and the automated systems format the different data to be integrated (Kari, 2011). It is the solutions for capturing the data and also for organizing, meaning and monitoring the workflow. The knowledge base is built to serve the specific purpose or the goal of the public sector and for each of the department and the programs they adopt is intended to manage the life cycle of the content of the sector (Mirijamdotter, 2014). It is the solution for the organization and automatically classify the documents for the storage and imaging of the programs and systems that are used by the public sector to be shared securely; and it is also the tool to recognize the actors that are required for the departments of the public sector (Mars, 2013). Information technology is able to produce organizational quality of the public sector with the innovation of the properties that emerge from the simultaneity of quality, originality and speed that enables them to be more effective and with the combination of intellectual capital, technical depth application of new knowledge and process improvement with the testing and correction for improvement (Otto, 2015).

Based on the tasks, the application of software like outlook, Deltek Cost point, TRAKiT, iCity municipal software, NEOGOV, POSSE, Accela Automation (www.ncsi.gov.om) that reduces the human labor and improves analysis of information and decision making and transfers and coordinates information rapidly and coordinate tasks; processes and permits detailed monitoring of processes, inputs and outputs (Halper, 2013); facilitates the streamlining of the administrative process; allows the decentralization of the scope; and scale of the department and the sector activities are utilized. Interaction of the resources and competencies and the various practices of the functional area of the sector and these are produced through the complementary relationship that has been existed that successfully managed the relationship do the public through various services adopted by the public sector (Shobeiri, 2013). The interaction of the resources competency in the public sector will be able to invest to produce analytical capability and new problem solving techniques with the various processes routine

the data storage reporting analysis and interpretation in the innovation that take place in the organization and it brings in value individually (Page, 2016).

The Role of IT on the Executive Secretaries' Performance

The public sector relies on the executive secretary to follow the appropriate procedure regarding the public sector regulations, legislative requirement and the accountability standards. It is through the analytical use of information technology and with the improved analysis of Information and decision making (Raitt, 2013) that the executive secretaries of the departments of the public sectors facilitate the operations and enable the accuracy to be implemented in the various activities adopted by the department (Peruta, 2013).

The executive secretary exercises functions of the executive commission technical secretary and he informs and submits the approvals when required regarding the executive commission of the matters under their competence and present it before the committee and the executive commission (Suvanto, 2015). It is the duty of the executive secretary to propose the minimum expertise required and also the solid IT requirement for the independent evaluation of the department and the public sector (Stephenson, 2014). IT generates efficiency in communication which is made more easily and with less cost involvement across time and geographic location. It permits communicate more rapidly and greater precision to the targeted individual or group, and there is also the ability to record and index more reliably and inexpensively and also to selectively control access and participate in the communication (Isaiah, 2012).

The executive secretaries are able to compile the detailed records of activities through capturing the data and they are even able to process it through converting, analyzing, computing and synthesizing, the entire data and information required for the activities in the public sector. Through the use of information technology they are even able to organize the information into the useful form and format and the storage of the data is also made possible to retain the information for further use (Dunn, 2012). Implementation of operational parameters for the executive secretaries and for the working units reviews of IT systems, networks and architecture permit the governance of the activities through information technology and allow the workflow processes to integrate the service domain expertise. With the use of the infrastructure which includes the hardware components, network, circuitry and the other recruitment needed for the system functions the processes well carried out in the public sector (Jaxson, 2011). The most apparent task which is the functionality is created and maintained with the operational applications, securing, developing and storing electronic data belonging to the public sector and assists with the use of software and data management to the entire functional areas of the public sector (Rodriguez, 2011). The information technology of the public sector is integrated with broad cross functional perspective of quality issues and it provides much discipline to address quality improvements. It is defined to top quality measures and goals and as agreed to quality measures and corresponding management systems (Gray, 2015). It serves as a focal point for the extended IT quality network which is comprised of providers and end users and it also promotes knowledge sharing of best practices. Information technology in the public sector also improved user satisfaction, reduce defects, control IT cost, improve IT infrastructure, and improve user perception and application stability of IT quality. The quality function of the information technology is focused on the public issues rather than the internal issues of the public sector (Jaylen, 2015).

Effective Performance and Producing Efficient Productivity through IT

Performance effectiveness is produced in the public sector through the various activities with the implementation of information technology that the management of the program implementation and sector process improvement are generated through the IT implementation. IT enhances the performance of administration and operations (Brakel, 2011), finance activities and the human resource management and various other performances of each of the department improved public interaction, and organizational communications and data management is also made possible through IT (Heim, 2011). Efficient productivity is brought in through lowering the cost of the processes, developing alliances, promoting growth, permitting innovation, increasing productivity, reducing errors, making the sector more competitive, easy access to information, more and easy public access and thereby more public satisfaction, better internal and external communication, time saving, high value, faster work performance and cheaper and better, provide assistance with planning, and implementing change in the department of each of the sector and provide assistance with benefit tracking and benefit realization programs and also to provide recommendation regarding the training needs and internal communications the use of the information technology in the entire departments of the public sector that provides support for the public sector requirements (Francisco, 2013).

The use of the information technology is positively related to the decision making and the problem identification that speed the process of the executive of the organization and the technology helps the executive that manager to make specific types of required decisions. Information technology permits storage of volumes of data and make the interpretation of data and conclusion for the particular problem (Rivas, 2013). The modification of knowledge permits the storage of the critical document online and also its retrieval during the required period and also to benefits linking the human resources, departments and the organizations of various forms according to the need (Dixie, 2014). Improved efficiency through better productivity is able to be achieved with the use of information system and the set of interrelated components that process, collect, store and distribute information towards coordination and control and it support decision making. With the choice of write technology and future vision accurate analysis is possible with the investment in technology choosing the path of innovation that increases the overall competitiveness (Alvarado, 2011). Accuracy and speed is the core of right decision making in the public sector and with the adoption of information technology it enables management and the executive secretaries to make the appropriate decision (Daniella, 2012). Effective integration of information technology into the service processes of the public sector is increasingly crucial for effective performance of services. Issues occur due to the complexity of technology and the rapid pace of change in it and this much essential to update the information through training and development given to the executive secretaries and also to the other employees in various departments of the public sector in order to bring in effective performance and productivity for better service activities (Nash, 2014). Quality improvements in information technology delivery and service support is obtained through the introduction of much consideration for user satisfaction, flexibility and integration in the decision Process and reinforcing them throughout the process of review. The quality is managed to ensuring the standards and the adoption of information technology has to be aligned with a performance management of the public sector (Andres, 2014). Services provided by the departments which includes the enquiries and investigation services, industrial development programs and services, consumer protection services, legal compliance and assistances (Teeroovengadum, 2011), e-government service, information accesses, e-payment, information related to

environment services, information security centre access, quarterly review, allocation of resources and fund, preparation of reports, training, management of complaint and suggestion and the various activities that are done in the public sector and the related activities and services are efficiently performed by the departments of the public sector through the effective use of IT.

IT is even included with the communication with the message systems of teleconferencing at a later stage with the various communication procedures and communication mediation having many channels and networks which generated inter organizational transactions with even cash management for corporate customers and also relations with customers or suppliers which permitted the activities of the organization impart various activities with latest facilities technology which increase the pace of activities with much accuracy (Pitts, 2015). Even geographical distant areas are connected by information technology that even commuting does not stop the office activities. Employees are able to update information and coordinate with their subordinates and colleagues through the use of information technology that has permitted easy access of information anywhere and anytime (Alexa, 2015). Through information technology, public sector is able to capture relevant information in the efficient manner and effectively manage the documents ensuring that the information is dealt in the logical workflow (Mcdaniel, 2010).

The goal of the public sector is to increase the value of the service to the public whether they are the employees, customers, suppliers or public (Chase, 2013). Even in the service management the service planning and procedures and the related activities are linked through IT that it permits effective acquisition of results with accuracy in the public sector (Stanley, 2013). Physical-digital integration is generated through the technology of smart phone enabling the online access of work and audio and video conferencing for the geographically distant discussions are also more to add to this sector (Vuolle, 2014). Automating most of the tasks in order to save time is another trend adopted by the executive secretaries and also by the public sector. Automating the reply as the acknowledgement is one of the commonest aspect that can be seen in this sphere. The subscribes, reports, alerts and monitoring, audit, governance and compliance are all automated and accepted as the part of activities in the public sector (Demetrius, 2013). Efficiency initiatives are how much used in almost all departments of public sector that through this financial savings or cost avoidance is efficiently possible to be managed. This enables the cost reduction through information technology and with the use of the latest technology and software; the public sector is able to produce efficiency through cost saving in the public sector. Service improvement and risk mitigation is also done through the use of information technology in the public sector that more effective operations are able to be performed in the sector even while containing risk in it (Peslak, 2012). Wide learning environment is produced through the use of information technology in the public sector.

Beyond the telephone information technology has produced effective conferencing through instant messaging, webinars, good computing, email and calendars. that has improved communication in the public sector (Beard, 2011). The communication which was much restricted in the department and among the different levels of staff in the sector has widened more towards bottom to top and top to bottom level communication which has enhanced information sharing and working relationship in the public sector that has added to the

coordination and cooperation of the employees across the departments that has enriched the performance quality and productivity (Beckett, 2014).

RESEARCH METHODOLOGY

Kale (2015) defines the research design as the blueprint for conducting the study with extreme control over the aspects that may interfere with the validity of the findings. This study adopts the descriptive research done through the survey method that used the distribution of prepared set of questionnaire and collecting the opinion of the respondents. The research adopts purposive sampling used with a specific purpose and the respondents are not randomly chosen. The research focuses the opinion from 100 executive secretaries that are chosen from five public sectors of Oman. The data collection method adopted is the primary and secondary data collection. The data is then analyzed through descriptive statistics which is used to describe the basic features of the data acquired through the summaries together with graphic analysis to form the basis of the quantitative analysis of data. It is used to simplify large amount of data in a sensible manner to get a simpler summary.

Descriptive research is not experimental and it is used to state a group and the required data is collected through interviews and surveys and it is one of the finest methods to gather data which is to be generated and it is the rationality behind the study which is the descriptive method. It is acquired through the survey method adopted for the study (Kumar, 2014).

Sampling Technique

The selection of the participants was done in each of the public sector that the data is available with the respondents chosen for the study. The research adopts purposive sampling used with a specific purpose that the subject is fit for the researcher compared to the other individuals and the respondents are not randomly chosen (Khan, 2011). There are large numbers of departments in the public sector and five were selected for the study namely: ROP, Oman Chamber of Commerce and Industry, Public Authority for Consumer Protection, Ministry of Environment and Climatic Affairs, and Ministry of Social Development are chosen for the study. The research focuses the impact of IT to the overall performance of executive secretaries in the public sector of Oman and through the purposive sampling method, the respondents are chosen among the executive secretaries in various public sector departments.

Sample Size

The sample size is 100 who are executive secretaries selected from five public sectors namely Ministry of Social Development, Public Authority for Consumer Protection, Oman Chamber of Commerce and Industry, Ministry of Environment and Climatic Affairs and Royal Oman Police. Each of the public sectors has various departments like Department of Treasury, Department of Finance, Department of Human Resources, Department of Public Information and each department has executive secretaries and so to get a detailed analysis of the study. Most of the departments are covered through the distribution of questionnaire to the participants and so the study focused 100 of the respondents. From Ministry of Social Development 22 executive secretaries are selected and from Public Authority for Consumer Protection it is 21 executive secretaries that are selected. Oman Chamber of Commerce and Industry had 18 of them for study and Ministry of Environment and Climatic Affairs had 19 executive secretaries that are chosen and Royal Oman Police had 20 of the executive secretaries as participants for the study. As most of the sectors in the public sector have around 20 departments, the selection of an

executive secretary from the department was adequate to gather the information from each department thus the number of participants reached 100.

Research Instruments

Survey questionnaire is a method commonly adopted to collect information regarding the interest and opinion of a population (Kumar, 2014). The survey done through questionnaire is the predefined series of questions that is used to collect information from the selected individuals. The study here adopts closed ended and also open ended questions that the respondents are given list of predetermined responses for the closed ended questions from which the participants are to choose the answer and also two open-ended questions to gather their opinion. Every possible response has been included in the list of responses. The selection of closed ended questions is used due to its ease of counting the frequency of each response. The research adopts putting the routine questions like gender and additional qualification. In the beginning of the questionnaire to clarify every possibility of different aspects to reach the objective appropriately.

Questionnaire is used for the survey for the primary data gathering (Kuada, 2012). The questionnaire has four major sections: The first section talks about the impact of IT on facilitating job access of the executive secretaries. The second section deals with the impact of information technology on the performance and productivity of the executive secretaries in the public sector of Oman. The third section is about the impact of IT in the overall performance of the executive secretaries. The fourth section is regarding the improvements that can be recommended of the use of IT for the effective performance of the executive secretaries in the public sector of Oman. Each section has closed- ended questions which are provided with the list of predetermined responses for the participants to mark the opinion regarding each aspect. There are even two open -ended questions that permit attaining in-depth opinion regarding the impact of IT on the overall performance of the executive secretaries. It provides getting the adequacy of the IT in the public sector and also the impact that IT will generate with more implementation of information technology in the public sector.

The primary data collection is done through the own effort of the researcher through the distribution of the prepared set of questionnaire to the hundred respondents who are the executive secretaries of the public sectors in Oman and their opinions are collected through the survey. Interviews generate and produce rich and life qualitative data (Singh, 2010). Interview was also conducted to get the opinion regarding the adequacy of the IT in the public sector and also to identify the impact that IT will generate with more implementation of information technology in the public sector. The interview was conducted with 5 of the senior executive secretaries of the public sector in Oman who provided their opinion regarding the topic and it was recorded and transcribed to MS Word for data analysis. The secondary data collection was done through the books, journals which are accessed from Taylor and Francis, Proquest, Oxford Journals, Emerald Insight and Springer, and many articles and websites of many Ministries in Oman.

Data Validation and Test for Reliability

Reliability in data produce strong trustworthy research outcomes (Tandon, 2013). In order to attain reliability, the test-retest reliability was adopted that the same process of distribution of the prepared set of questionnaire was distributed to five of the executive secretaries from five

of the selected public sectors and the opinion was collected two weeks after the first collection of opinion to the same group of executive secretaries. The validity in data is the extent to which the measurement is accurate (Rao, 2011). The result is then correlated to evaluate the test for reliability. The validity of the data is linked to external validity, internal validity, reliability and objectivity and to ensure the validity of this research, the researcher analyzed the responses acquired from the participants thoroughly and presented an accurate account of the opinion of the participants and it was then cross checked with the department of the different public sectors to which the executive secretaries belong to verify the authenticity of the actual data. The opinion gathered from the executive secretaries through retest attained similar opinion to that of the answers acquired through the first survey done through questionnaire. The data validation is finalized by checking the databases to ensure that the information gathered from different data sources are accurate and adequate and it is done by two of the senior executive secretaries in the public sector namely, Royal Oman Police.

DATA ANALYSIS

The data was collected using various tools and it was then analyzed based on the research problem that is mentioned in the first chapter of this study and using statistical package like the social science program software (Hegde, 2015). The data analysis is the process of applying statistical logical technique to clarify, describe and evaluate the collected data through summarizing the information and adopting analytical and logical thinking in the study and using various analytical procedures to generate process of inductive reasoning on information gathered from the respondents (Shirish, 2014).

Q1. Gender of the respondents

Table 1.0. Gender of the Respondents

Gender	Repetition	Percentage
Male	64	64%
Female	36	36%
Total	100	100%

Table 1.0 revealed that there are 64% males and 36% female in the public sector. There are more male executive secretaries in the public sectors of Oman than female executive secretaries. They are selected based on the written civil services exam and the criteria mentioned for the selection of executive secretaries that have to be filled includes more travelling inside and outside Oman for the official purposes. Therefore, less female opt such preferences because the position is occupied more by males. With aggressive competition and the global market places in the changing environment, the business structure need to be more responsive to match the rapid change in the markets and technologies and so the recruitment of the executive secretaries are made based on the activities that are to be performed in the department and so the selection of the male and the female candidate was chosen according to the position that the public sector holds.

Q2. Age of the respondents**Table 2.0. Age of the Respondents**

Age	Repetition	Percentage
20-29	4	4%
30-39	31	31%
40-49	62	62%
50-59	3	3%
Total	100	100%

Table 2.0 showed that 4% of the respondents were between the age group of 20-29, 31% of the respondents were between 30-39, 62% are between 40-49 and 3% of the respondents were between 50-59. This proves that more number of executive secretaries were between the age group of 40-49. The public sectors in Oman is more specialized with different sectors, officers and designations from the past 20 years and the recruitment started during that time and it produced executive secretaries with below 20 years' experience and in the age group of 40-49. Moreover, before these positions were handled by the expatriates and complete Omanization, these areas generate staffs between 30-39 and 20-29. The internal operational efficiency is extended through the service activities and processes that happens in the departments of the public sector and it is through the effective use of the information technology that the value of the operations are acquired with the potential of the executive secretaries.

Q3. Educational qualification of the respondents**Table 3.0. Educational Qualification of the Respondents**

Educational qualification	Repetition	Percentage
Diploma	0	0%
Bachelors degree	60	60%
Masters degree	25	25%
Above Master's degree	15	15%
Total	100	100%

Table 3.0 revealed that none of the executive secretaries were with diploma, 60% of them were with bachelor's degree, 25% were with Master's degree and 15% of the respondents were above Master's degree. This shows that most of the executive secretaries hold bachelor's degree. The executive secretaries in the public sectors of Oman were chosen on their educational qualification and it was necessary to have bachelor's degree and so they were chosen with bachelor's degree and also Master's degree. The integrative approach of information technology coordinates various tasks and processes; and captures and distributes the intellectual assets that produces much appropriateness of the processes of the human resources in their activities through the use of information technology in the department and also in the public sector and the educational qualification adds to the quality and value of the service provided.

I. The impact of IT on facilitating job access of the executive secretaries

Q1. Support provided by IT for the executive secretaries?

Table 4.0. Support Provided by IT for Executive Secretaries

Support provided by IT	Repetition	Percentage
a. Places information from many sources at the finger tips and enable access easily and appropriately.	38	40%
b. Permits information and connections available at any time and place.	17	14%
c. Enables rapid communication among the departments and technology mediated relationships beyond neighbourhood	14	15%
d. IT has reduced work congestion and saves time due to its efficiency.	10	11%
e. IT facilitates appropriate decision making at the higher level of management.	21	20%
Total	100	100%

Table 4.0 showed that 40% of the respondents believed that information comes from many sources and can be at the fingertips as it enabled access easily and appropriately through IT, 14% says it permits information and connections at any time and place, 15% agrees that it enables a rapid communication among departments, 11% said that it reduced work congestion and 20% suggested that it facilitates appropriate decision making. This proves that the respondents have the opinion that IT supports executive secretaries. There are various aspects like IT knowledge, ease of access, interest towards IT, more training provided to the staffs, more usage, understanding of the software that generates appropriate decision making, reduced work congestion, rapid communication, information availability, and easy accessibility on job access of executive secretaries. It is the use of the information technology that permits the focus on the long term planning through the strategic plans with the easy handling of the activities and its systematic functioning and it permits the clear and logical design that ties the activities and resources to attain the expected results with more accuracy and also to manage the various programs with focused approach to deliver the required services.

II. To estimate the impact of Information Technology on the performance and productivity of the public sector in Oman

Q1. Major areas of IT used in the public sector generating effective performance

Table 5.0. Major Areas of IT used in the Public Sector

Major areas of IT used in the public sector	Repetition	Percentage
a. Administrative information system and Multimedia application	44	45%
b. Personal productivity tool and Computer aided design	9	10%
c. Knowledge based system and Networking	22	20%
d. Software development	9	7%
e. Geographical information system	16	18%
Total	100	100%

Table 5.0 showed that the major areas of IT used in the public sector and 45% said that it is used for the administrative information system and multimedia application, 10% suggested personal productivity to learn computer aided design, 20% said for knowledge based system and networking, 7% said software development and 18% on geographical information system. This proves that the public sector has adopted IT in many areas. Better and more availability of data through geographical information system, more data access through software development, more IT usage through knowledge based system and networking, more training to use IT as the personal productivity tool and computer aided design, ease of access for administrative information system and multimedia application make IT to be used in major areas in the public sector and in Oman it is to be developed more in different areas. The more use of IT in the administrative information system permits realigning the activities and processes and the relationships to attain performance breakthroughs through the process design and has changed the way the information is adopted by the sector and thereby changing the overall department activities with value adding processes through the network redesign and extended the market and creation of new products which are based on information with the changing role of the department of the public sector with the introduction of new information enabled model through the scope redefinition.

Q2. Benefits of IT in the public sector producing efficient productivity

Table 6.0. The Benefits of IT in the Public Sector

Benefits of IT in the Public Sector	Repetition	Percentage
a. More access to public and develop service activities more	31	30%
b. Streamline operations	9	10%
c. Reduce cost and Improve efficiency	31	30%
d. Maximize profit and Minimize waste	13	15%
e. Devote talent to core services instead of overhead	16	15%
Total	100	100%

Table 6.0 showed that the benefits of IT generating productivity and 30% said that there are more access to public and develop service activities; 10% said to streamline operations; 30% on reduce cost and improve efficiency, 15% to maximize profit and minimize waste, and 15% said to devote talent to core services. This proves that there are more benefits through IT in the public sector. IT knowledge, ease of access, interest towards IT, more training provided to the staffs, more usage, and understanding of the software make IT to generate productivity, more access to public and develop service activities, streamline operations, reduce cost and improve efficiency, maximize profit and minimize waste in the public sector and the study has enabled to identify that through more awareness and training more benefits can be attained through IT. The public sector focuses the improvement of efficiency in the public sector and tries to apply IT more into the services and also to reduce the cost involved in the different activities and as it is the public sector IT permits more access to the public and develop service activities more and with the use of the information technology, there is also the management effectiveness and is also able to interact with the public in real time and also to respond to their needs and it produces the complementary resource that can support to attain the task and goals which produces effectiveness and efficiency in the departments of the public sector.

Q3. Importance of IT in the public sector

Table 7.0. The Importance of IT in the Public Sector

Importance of IT in the public sector	Repetition	Percentage
a. Reduction of cost for the services and quality attained	17	14%
b. Quality of additional services accomplished	10	11%
c. Cross departmental activities enhanced	38	40%
d. Innovations were realized	14	15%
e. Impact of IT in improving productivity of the departments of the public sector	21	20%
Total	100	100%

Table 7.0 showed the importance of IT in the public sector and that 14% of the respondents said that IT reduces cost for the services and quality attained; 11% said that the quality of additional services is accomplished, 40% said cross departmental activities are enhanced, 15% said that innovations were realized with IT, and 20% said that IT has improved the productivity of the departments of the public sector. This proves that IT has played a very important role in almost all performance productivity issues in the public sector. Adequate information for the support of services, value adding processes, automation of the service activities and processes, procurement capabilities, project management, deliver enhanced products and services, interacting with the public in real time, performance assessment of the various services, accountabilities, make IT to reduce cost, quality accomplishment, and enhancement of cross departmental activities, innovation, and improved productivity. The use of IT permits cross departmental activities that happens more in the public sector that enrich the departmental activities enabled the public sector to connect cheaply with the public and the partners and suppliers to almost anywhere in the world and also has enabled low cost linkages with the various stakeholders permitting to track the progresses online and has enabled effective internal integration of information overcoming the barriers with the improved integration of internal processes with the information based products and services but innovations are created less to improve the services more.

Q4. Application of software for the performance effectiveness in the public sector**Table 8.0. The application of software for the performance effectiveness**

Application of software for the performance effectiveness	Repetition	Percentage
a. Deltek Cost point software reduces manpower through reducing the number of accounting staffs	15	16%
b. TRAKiT used by the public sector for enriched communication with the public and for life-saving situations and public safety	16	15%
c. iCity municipal software for enhanced public relationship and better service	8	7%
d. NEOGOV HR software for government and public sector for improving the sector quality performance	16	17%
e. POSSE software solution for the government for automating the work flow	9	10%
f. Other software application(s) iGov, iNovah, WebDPW, Piryx Government, Mygov, WIN-CAMS, Remit-Gov, FabasofteGov-Suite, FIT CityTrack, AMANDA	36	35%
Total	100	100%

Table 8.0 showed the application of software for the performance effectiveness and 16% said Deltek Cost point software reduces manpower through reducing the number of accounting staffs, 15% said TRAKiT used by the public sector can enriched communication with the public and for life-saving situations and public safety, 7% said iCity municipal software enhanced public relationship, 17% said NEOGOV HR software is for by the public sector for improving the sector quality performance, and 10% said POSSE software solution has assisted the government for automating the workflow. 35% agreed on the use of iGov, iNovah, WebDPW, Piryx Government, MyGov, WIN-CAMS, Remit-Gov, FabasofteGov-Suite, FIT CityTrack, and AMANDA for performance effectiveness. This proves that there are software applications for performance effectiveness but it can even be improved. IT knowledge, ease of access, interest towards IT, more training provided to the staffs, more usage, and understanding of the software made IT to generate productivity, through the use of various software and the public sector can even implement more software which will produce procurement capabilities, project management, deliver enhanced products and services, interacting with the public in real time, performance assessment of the various services, and in future more software are to be applied to produce efficiency in the public sector.

Information technology is used in the public sector in various areas like software development, knowledge based system and networking, geographical information system, administrative information system and multimedia application and the use of information technology is more as the administrative information system that permits better administration of the activities of the public sector. The use of information technology improves efficiency of the performance in various departments in the public sector and it also permits reducing cost. It gives more access to the public and different services provided to them and it also enables generating better services through the performance of the public sector. It is the information technology that enables cross departmental activities effectively enhanced and generates efficiency in the performance and productivity of the public sector.

III. To assess the impact of IT on the overall performance of the executive secretaries

Q1. Rationale for the use of IT by the executive secretaries of the public sector

Table 9.0. The Rationale for the Use of IT

Rationale for the use of IT	Repetition	Percentage
a. IT used to accommodate the public needs and attain competitive advantage	21	20%
b. Strong belief in advanced IT	14	15%
c. IT configuration flexible to the public	10	11%
d. For proper control and good communication and Information sharing and openness to learning	17	14%
e. Tap full potential of the executives secretaries	38	40%
Total	100	100%

Table 9.0 showed the rationale for the use of IT and 20% of the respondents said it is used to accommodate the public needs and attain competitive advantage 15% had strong belief in advanced IT, 11% said that IT configuration should be flexible to the public, 14% believed that IT is used for proper control and good communication, 40% believed that IT tap full potential of the executive secretaries. This shows the rationale behind the use of IT by the executive secretaries. The use of information technology effectively by the executive secretaries in the departments of the public sector tapping the full potential of the executive secretaries through its effectiveness and efficiency and generate better performance and productivity in the public sector. However in Oman, the use of information technology and its awareness is not much among the public and therefore the use of the website and the related aspects of information technology is not completely adopted by the public and as a consequence it does not provide effective productivity among the public in acquiring and using information technology in acquiring the services.

Q2. Need for the use of IT by the executive secretaries?

Table 10.0. The Need for the Use of IT

Need for the use of IT	Repetition	Percentage
a. To encourage better decision making and for better and fast updates of information	25	26%
b. More potential than the traditional way of working and More return on investment	16	15%
c. Enhanced customer satisfaction	6	7%
d. Enriched service growth	18	17%
e. Positive impact on the service activities	35	35%
Total	100	100%

Table 10.0 illustrated the need for the use of IT by the executive secretaries and 26% said that it is to encourage better decision making and for fast updating, 15% said for more potential than the traditional way of working, 7% said that IT is needed to enhance customer satisfaction, 17% said that IT is used to enrich service growth and 35% said to produce positive impact on the service activities. This proves that there are more needs through the adoption of IT.

Adequate information for the support of services, value adding processes, automation of the service activities and processes, procurement capabilities, project management, deliver enhanced products and services, interacting with the public in real time, performance assessment of the various services, accountabilities, produce positive impact on the service activities, enriched service growth, customer satisfaction, more return on investment, better decision making and fast updating through IT, and it proves that in the public sector more needs can be fulfilled through the use of IT. Among the public, the awareness regarding information technology and its various related uses are very less answer the public make use of these services with adoption of IT. The information technology is widely used in the public sector and in the different departments and also by the executive secretaries, the public make use of this system less effectively as a result the satisfaction acquired by them through this system is also very less.

Q3. Do you agree that the use of IT by the executive secretaries will enable more services like:

Table 11.0. The Use of IT by the Executive Secretaries Enabling More Services

Use of IT by the executive secretaries enabling more services	Repetition	Percentage
a. Authority to make necessary decisions to take advantage of the opportunities	11	10%
b. Improve the process and content of decision making of the secretaries and improve communication across departments and sectors	18	17%
c. Better coordination among functional areas	12	14%
d. Improves coordination among geographically separate departments	36	38%
e. Increased Executive secretaries' management span of control through IT	23	21%
Total	100	100%

Table 11.0 showed the use of IT has enabled more services, and that 10% said that IRT has enabled them to have authority to make necessary decisions to take advantage of the opportunities, 17% said that it improves the process and content of decision making, 14% said that IT has assisted them for better coordination among functional areas, 38% said IT has helped them to improve coordination among graphically separate departments, 21% said that IT has increased the executive secretary management span of control. In the public sector, there are different functional areas and between certain areas like research and development and public Service processes there is less coordination which is to be improved for better effectiveness and efficiency which will produce more productivity.

In the public sector, information technology is used to accommodate the public needs and to be more flexible to the public with more provision of services that enable effectiveness in the service activities done towards the public. Information technology permits tapping the full potential of the executive secretary is in the public sectors of Oman that they are able to generate effective performance of services provided to the public and the by acquiring public satisfaction. Information Technology in the public sector is able to produce better services and more return on investment. The executive secretaries are able to produce better decision

making and fast updates of information that generate positive impact on the service activities. The use of information technology permits better coordination efficiency in the services that are provided to the public in Oman.

IV. To make recommendations on the improvement of the use of IT for the effective performance of the executive secretaries in the public sector of Oman

Q1. Challenges that may occur in the adoption of IT by the executive secretaries.

Table 12.0. The Challenges that May Occur in the Adoption of IT

Challenges that may occur in the adoption of IT	Repetition	Percentage
a. Resistance to change	10	11%
b. Lack of training and Unstable infrastructure	22	20%
c. System failure	16	15%
d. Insufficient funds and Poor implementation	13	14%
e. Security threat	39	40%
Total	100	100%

Table 12.0 showed the challenges that may occur in the adoption of IT and 11% said that its their resistance to change, 20% said the lack of training and unstable infrastructure, 15% suggested system failure, 14% said insufficient funds and poor implementation, and 40% said security threat. More effective implementation of information technology in the public sector can have challenges from the resistance to change produced by the employees that they will be less prepared to change from the traditional way of working and it can produce ineffective implementation of change through technology in the public sector. There is also a challenge that is being created in the public sector due to the insufficient fund generated by the government due to the economic downfall in the country and also the poor implementation of the information technology which is applied due to this factor. More awareness of the usage of IT and the efficiency and benefits that IT can produce in the public sector is to be made. Better training is to be provided to the executive secretaries to dramatically reduce the challenges.

Q2. Do you agree that more adoption of IT by the executive secretaries will enrich the public sector through these ways?

Table 13.0. The Adoption of IT Enriching the Public Sector

Adoption of IT enriching the public sector	Repetition	Percentage
a. Quality of service will permit attaining improved level of service and competitive advantage	8	7%
b. Department will be more effective than other departments	17	18%
c. Improves productivity through automation	11	10%
d. Ability to anticipate public needs	18	20%
e. Higher level of responsiveness to the public needs	46	45%
Total	100	100%

Table 13.0 showed that the adoption of IT will enrich the public sector and that 7% said that the quality of service will permit attaining improved level of service, 18% said that department will be more effective than other departments with adoption of IT, 10% said that it will improve productivity though automation, 20% said that it will assist to anticipate public needs, and 45%

said it will be more responsive to the public need. Only when quality is acquired in the service there will be better service in the public sector and it is to be attained in the public sector of Oman. There is the need to improve the quality of the services in the public sector through the adoption of more implementation of Information Technology. Through IT, there can be value adding processes, automation of the service activities and processes, procurement capabilities, project management, deliver enhanced products and services, interacting with the public in real time, performance assessment of the various services, accountabilities which will enrich the public sector with enhanced performance and productivity and will permit attaining competitive advantage.

Q3. Areas of service improvement of executive secretaries with more investment in IT

Table 14.0. The Areas of Service Improvement through IT

Areas of service improvement through IT	Repetition	Percentage
a. Operative service processes run smoothly and securely	14	15%
b. Operative service processes carried out inexpensively	17	14%
c. Lead time for the services reduced	10	11%
d. Permanent access to necessary information and making quick decision on emergency issues	21	20%
e. Access to information even when out of office	38	40%
Total	100	100%

Table 14.0 showed the areas of service improvement through IT and 15% said that operative service processes will run smoothly and securely with IT, 14% said it is carried out inexpensively with IT, 11% said the lead time for the services is reduced, 20% said that IT will aid in making quick decision on emergency issues, and 40% said that IT helped them to gain access to information even when out of office. The service processes in the public sector take very less lead time for the services to be completed and thus there is adequate time for different activities to be conducted appropriately in each of the department in the public sector. This even improves performance and quality in the department to generate effectiveness. Service improvement can produce value adding processes, automation of the service activities and processes, procurement capabilities, project management, deliver enhanced products and services, interacting with the public in real time, performance assessment of the various services, accountabilities which will enrich the public sector with enhanced performance and productivity.

Q4. IT adoption by executive secretaries can be improved through:

Table 15.0. Methods That Can Improve Public Sector Through IT Adoption

IT adoption by executive secretaries	Repetition	Percentage
a. IT strategy can be aligned with the service strategy	8	7%
b. Department can make use of IT to facilitate automation of the core service processes	25	26%
c. Facilitate new processes that constitute better way of doing services and control its quality	18	15%
d. Service processes can be redesigned to create competitive advantage	13	17%
e. Continuous process improvement is valuable for the public	36	35%
Total	100	100%

Table 15.0 showed that the adoption of IT can be improved through many ways and 7% said that the IT strategy can be aligned with the service strategy. Various services provided to the public can be produced through the adoption of information technology which will permit attaining is of service and quality through the use of website and various other internet sources and awareness also is to be provided to the public which will produce effectiveness of service through IT. 26% said that IT facilitates automation of the core service processes like Job scheduling, service operations and administration after social welfare activities, consumer protection and related aspects giving services to the public, industrial Development services including various initiations for new industries and different processes related to it, road traffic, immigration, civil defence, customs service. 15% said that IT facilitates new processes that constitute better way of doing services and control the quality. Designing, managing and improving the processes through updates of information technology as per the development of technology and its implementation in the public sector permits acquiring quality which is much essential require value for the public through the various services provided by the public sector. 17% said service processes can be redesigned with the use of IT. It was the traditional way of performing the services in the public sector that existed in the department and with the adoption of information technology that permitted fast and ease of service to the public with quality and accuracy that gives that gives better service to the public. 35% said that continuous process improvement is valuable for the public. This proves that IT application can even be improved for the betterment of the public sector. There are still many Areas where information technology can be aligned to improve the services provided to the public which can produce effectiveness and efficiency in the various services. The awareness of the public regarding the information technology and the adoption of this technology in order to acquire various services with ease is yet another aspect that can be generated in Oman through the improved implementation of Technology. Through various methods of IT adoption, there can be value adding processes, automation of the service activities and processes, procurement capabilities, project management, deliver enhanced products and services, interacting with the public in real time, performance assessment of the various services, accountabilities and so the public sector will have enhanced performance and productivity which will permit attaining competitive advantage.

ANALYSIS OF RESULTS OF INTERVIEW

Adequacy of IT in the Public Sector

Q. Effectiveness of information technology adopted by the executive secretaries in the public sector of Oman.

- In Oman, the public sector is provided with adequate development with information technology which can be effectively used by the employees and especially by the executive secretaries of various public sectors of Oman. Information technology has been adopted by the public sector even from 1990s. But it is being developed and appropriately and systematically used only by 2001. It was then that IT has been efficiently used by the executive secretaries for various activities and functions in the public sector. Till then, it was the traditional way of working that was adopted by the executive secretaries. With the use of information technology the executive secretaries are able to facilitate fast decision making and enables rapid communication among the other staffs and departments, and it is used as the administrative information system that streamline the operations that produce effectiveness and efficiency in the productivity and performance of the executive secretary in the public sector of Oman.

Q. Provide a comparison of the information technology adopted by the executive secretaries in the public sector of Oman and that of a developed nation.

- However, while comparing the performance of the executive secretaries and the proficiency of information technology in Oman with that of developed countries, the technology has to move much forward with its implementation like that of various software and also the use of the information technology by the public in Oman. In US, the public sector has adopted complete digital transformation which has generated much effective performance and productivity in the public sector as well as in the use of the service by the public. US have adopted acronis software in most of the public sectors for the unique security and compliance requirements. It even provides comprehensive data backup and ultra-fast disaster which provides efficiency in the performance and productivity. While comparing the technology adopted by US with that of Oman, the use of information technology in Oman is only in the developing stage that much is to be adopted in this area to have more effectiveness in the performance of the public sector. A comparative study will definitely provide in-depth awareness of the level of the use of information technology in Oman and thereby improvement can be developed in the nation.

Q. Method to improve the usage of information technology by the public in Oman.

- In Oman, it is even essential to provide awareness to the public regarding the use of information technology and its availability provided by the government to the public that generates ease of access of information in the nation. The public in Oman use information technology generated by the public sector very less that even now it is the traditional way of functioning which is being adopted by most of the individuals in Oman. Awareness is to be provided to the public regarding the significance of Information Technology and the activities and functions that are provided to the public for the ease of access which can be used by the public. There needs to be awareness through the newspaper, radio and television which will provide Awareness to the public regarding the functioning of the public sector which is being provided with the use of information technology to the public. The awareness is to be provided in English as well as in Arabic and these are the common which are used in Oman. The public sector website is to be provided in Arabic as well as in English and the usage of the system is to be presented in the written and video format so that the public will be more aware of the way it is to be accessed. The awareness should be such that the common man in Oman should know

that the website provides ease of access to the public sector and there are various facilities provided by the sector for the public and it can be made use of. Even their needs to be awareness for the use of information technology as well.

What impact can be created with more and effective implementation of IT in the public sector?

- With the implementation of more advanced information technology in the public sector, there can be more effectiveness in the performance of the executive secretaries in the public sector and more efficiency in the performance, information sharing, accuracy, ease of access in the sector. Public will be able to access the website easily and they will be able to acquire facilities provided by the public sector and make use of it effectively. Information can be much shared with the public by the public sector through the use of information technology and it will generate public satisfaction through the services and activities provided by the public sector towards the people of Oman.
- With the implementation of advanced software, the executive secretaries will be able to perform effectively with reduced errors and accuracy and it will generate effectiveness in the performance. With the advanced technology, time can even be saved and also more work can be performed with quality which will reduce effectiveness in the performance of the public sector. The executive secretaries will be able to generate quality in the services provided to the department and also to the public and they will be able to make better decisions making for better and fast update of information and service activities with improved communication across the department and sectors and better coordination weather sector and different functional areas which will improve the performance and productivity of the executive secretaries as well as that of the public sector in Oman.
- With the use of advanced and more software, efficient solutions can be generated that support the system in the work environment, physical server backup and recovery will be possible completely, cost efficient system development can be produced, efficient disc management utilities will also be generated that significantly improve the performance and productivity of the executive secretaries as well as the public sector in Oman. Information sharing can be improved in the public sector to provide knowledge and awareness among the public regarding the services and facilities provided by the public sector towards the people of Oman.

CONCLUSIONS AND RECOMMENDATIONS

This study enabled the identification of the level of usage of information technology by the executive secretary in the public sector of Oman. It generates the evaluation of the performance of the executive secretaries with the use of information technology and it even identifies the improvement that can be made through the addition of various technologies and methodologies that can be appended to the executive secretaries. There are tools like BasicGov software, Ctzen software, E-Government office automation software, QuickCert or IPSR solutions, VMware, Citrix or Xen Desktop virtualization software, which need to be fully implemented in the public sector. They improve the performance and productivity of the department and also the performance of the executive secretaries in the public sector which is to be implemented through the provision of effective training program that is to be conducted by the department which will improve the efficiency of the performance of the executive secretaries. There is the necessity for the training which can even be done online and that will enhance performance

effectiveness of the executive secretaries as well as of the department and the public sector. This will be beneficial to the public sector of Oman that these aspects will generate effectiveness and efficiency in the performance and productivity of the executive secretaries and that of the public sector of Oman. These implementations can even be beneficial for the researchers that based on that they can perform the research and the level of the usage and the effectiveness that it produces in the performance of the executive secretaries and that of the department and the public sector can be identified by the future researches as well. The use of this software will produce effectiveness and the degree to which it generates efficiency can be identified by the future researchers.

The study addresses the impact of IT in facilitating job access of the executive secretaries in the public sector of Oman speaks. It supports the activities and functions of the executive secretaries in the public sector and has a major role in transaction of information and to generate new information which is based on the information after the process of transaction. It is possible for the organization to store the entire relevant data on the database. Information technology provides the ease of access of the work, reduced work injection, more communication, information availability, and above all easy access of job of the executive secretaries. With more knowledge on information technology and interest towards it and providing more training and development for the steps and understanding of the software, it will provide the atmosphere to generate appropriate decision making that will permit more quality and quantity of work for the executive secretaries in the public sector of Oman. With the use of information technology, there can be the long term planning of the strategic decisions and also the appropriate and easy handling of the activities in the systematic manner with clear and logical design of the resources and activities that generate desired result with more accuracy after management of the various programs that can be provided to the public sector in Oman. Through the use of the information technology, there is the widespread implementation of the performance based management approach in the public sector in Oman having a system of management that incorporate the setting of and reporting the targets and the subsequent used in the internal decision making process of the departments of the public sector. This incorporate the internal decisions on the changing work processes, re-allocating resources with different programs and setting program priorities with the use of information technology effectively and efficiently in all the departments of the public sector.

The study covers an estimate on the impact of information technology on the performance and productivity of the executive secretaries in the public sector of Oman. This suggests that through the use of this technology, there is the ability to sense, on the information regarding the various resources that produce effective learning among the resources of the organization and it even confirms to the traditions and norms and social expectations in the public institutional environment in Oman. In order to improve the performance and productivity of the public sector in Oman, the sector has adopted information technology in many areas which has generated availability of data through geographical information system, more data access through software development, more IT usage through knowledge based system and networking, more training to use IT as the personal productivity tool and computer aided design, ease of access for administrative information system and multimedia application make IT to be used in major areas in the public sector, and in Oman it is to be developed more in different areas. There is the realignment of the activities with the use of information technology in the administrative information system that permits attaining performance breakthroughs

through the process design which has changed the way the information is adopted by the sector and thereby changing the overall departmental activities with value adding processes through the network redesign and extended market and creation of new products which are based on information with the changing role of the department of the public sector. Information technology has provided ease of access of various functions in the public sector, more usage of information technology in streamlining the operations and reducing cost and improving efficiency, and maximizing profit and minimizing the waste in the public sector. There has to be more awareness among the public regarding the use of information technology for various activities in the public sector that will generate better service orientation providing effective performance and productivity of the public sector. Effective management of the activities of the public sector which will permit having better interaction with the public in real time and responding to the needs can also be generated with better awareness among the public. It produces the complementary resource that can support to attain the task and goals which produces effectiveness and efficiency in the departments of the public sector.

The potential that is developed from the synergistic interaction among the resources produces more potential in the department of the public sector with use of the information technology. It is possible to structure, manage the infrastructure, security and control the human resources of the departments of the public sector as well as the information technology governance in the organization. Information technology has committed to review the ability to report analysis and the targets and the various business metrics and also to identify the critical integration system risk involved in it and also to a certain extent to identify it in advance. Information technology has much significance in the overall performance and productivity of the public sector in Oman especially in the activities of executive secretaries. This generate adequate information for the support of services, value adding processes, automation of the service activities and processes, procurement capabilities, project management, deliver enhanced products and services, interacting with the public in real time, performance assessment of the various services, accountabilities, make IT to reduce cost, quality accomplishment, and enhancement of cross departmental activities, innovation, and improved productivity. Information technology also permits cross departmental activities that happen more in the public sector to enrich the departmental activities enabled the public sector to connect cheaply with the public and the partners and suppliers to almost anywhere in the world. Besides, it has enabled low cost linkages with the various stakeholders permitting to track the progresses online and has enabled effective internal integration of information overcoming the barriers with the improved integration of internal processes with the information based products and services but innovations are created less to improve the services in the public sector of Oman.

There are various software used like Deltek Cost point software reduces manpower through reducing the number of accounting staffs, TRAKiT that can enrich communication with the public and for life-saving situations and public safety, iCity municipal software for enhanced public relationship, NEOGOV HR software for improving the sector quality performance, POSSE software solution for automating the workflow. iGov, iNovah, WebDPW, Piryx Government, MyGov, WIN-CAMS, Remit-Gov, FabasofteGov-Suite, FIT CityTrack, and AMANDA for performance effectiveness. Information technology is adopted in the public sector in various areas like software development, knowledge based system and networking, geographical information system, administrative information system and multimedia application and the use of information technology is more as the administrative information system which permits

better administration of the activities of the public sector. The use of information technology improves efficiency of the performance in various departments in the public sector and it also permits reducing cost. It gives more access to the public to provide better services to the public. It is the information technology that enables cross departmental activities' efficient performance and productivity of the public sector.

The research here embraces impact of IT on the overall performance of the executive secretaries in the public sector of Oman. It has proved that with the use of the information technology the executive secretary is able to improve the efficiency and provide good quality relevant and timely improvement of the programs and also to take effective decision making to help improve the program performance. Information technology provides adequate support of services, value adding processes, automation of the service activities and processes, procurement capabilities, project management, deliver enhanced products and services, interact with the public in real time, performance assessment of the various services, accountabilities, produce positive impact on the service activities, enriched service growth, customer satisfaction, more return on investment, better decision making and fast updating through IT. It proves that in the public sectors more needs can be fulfilled through the use of IT. The information technology is widely used in the public sector and in the different departments and also by the executive secretaries, the public make use of this system less effectively. The satisfaction acquired by them through this system is also very less. However among the public, the awareness regarding information technology and its various related uses are very less answer the public make use of these services with adoption of IT.

The use of information technology by the executive secretaries in the public sector tap the full potential of the executive secretaries through its effectiveness and efficiency and generate better performance and productivity in the public sector. In Oman, however, the use of information technology and its awareness is not much among the public and so the use of the website and the related aspects of information technology is not completely adopted by the public. It does not provide effective productivity among the public in acquiring and using information technology in acquiring the services. In the public sector there are different functional areas and between certain areas like research and development and public service processes there is less coordination which is to be improved for better effectiveness and efficiency which will produce more productivity. IT has increased the management span of control of the executive secretary. Information technology provides more flexibility to the public with more provision of services that enable effectiveness in the service activities done towards the public. The executive secretaries are able to produce better decision making and fast updates of information that generate positive impact on the service activities. The use of information technology permits better coordination efficiency in the services that are provided to the public in Oman. Information technology in the public sector is able to produce better services and more return on investment. It has also improved the operational efficiency and to the wide systems of performance efficiency which has improved the methodological systems applied to the department. One of the major areas of reforms is the improved efficiency and effectiveness of the various activities performed by the executive secretary of the public sector.

RECOMMENDATIONS

The impact of IT on facilitating job access of the executive secretaries in the public sector of Oman:

- More and appropriate software based on the activities can be adopted and implemented and training can be provided to improve the automation of the department and generate effective performance. BasicGov software which is the cloud based solution for land management, social development and community access, Ctzen software permits management of consumer complaints and problem resolution. E-Government office automation software is for advanced administrative solution and these can be applied by the first quarter of 2018.

The impact of information technology on the performance and productivity of the executive secretaries in the public sector of Oman:

- With the complexity of technology and the rapid pace of change in it there is the necessity to update the information through effective training and development given to the executive secretaries for the for the department administration and also to the other employees in various departments of the public sector by the first quarter of 2018 to produce effective performance and productivity for better service activities. There can even be online training like Hyperion Financial Management or Executive administrative Training that can be provided to the executive secretaries and the executive secretaries can even be sent to developed nations like UK or US for the training purpose which will improve their skills and knowledge and improve their work performance.
- Online training can be provided to the executive secretaries by the first quarter of 2018 for the updates of technology and it can be even customized for the successful solution of the provision of service in the public sector. Through this method, the employees can even be given practical guidance that incorporates the latest technology with the instructional design and interactive training program to enhance the skill and knowledge for the employees in the public sector. These programs can be designed with the major goal of ensuring that the staffs are competent and productive with particular software that can enhance and enrich the performance and productivity of the executive secretaries in the public sector of Oman. Through QuickCert or IPSR solutions, there can be online training for the executive secretaries that will enrich them with adequate knowledge and skill for the effective performance .

The evaluation on the impact of IT on the overall performance of the executive secretaries in the public sector of Oman is as follows:

- There has to be more motivation towards innovation based on IT which can improve the effectiveness of the performance of the executive secretaries. Desktop virtualization can be adopted that permits viewing and interacting with the virtual desktops over the network with the use of remote display protocol. VMware, Citrix or Xen Desktop virtualization software can be adopted for better performance. Consideration for innovation can be made and its implementation can be generated.
- Innovation needs to be made as a significant aspect in the public sector and regarding information technology that there needs to be organizational climate with effective participation, freedom of expression and freedom to experiment, effective participative

leadership providing adequate resources and skills for the improvement of innovation in the organization. There has to be motivation for the employees and it can be generated through effective rewards and recognition for innovation which will motivate employees towards it.

Recommendations on the improvement of the use of IT for the effective performance of the executive secretaries in the public sector of Oman:

- The application of IT needs to be configured with more flexibility for the public and awareness are to be given to the residents of Oman that permits using the technology effectively that generates attaining more participation from the people towards the sector. There needs to be modelling of the access to be provided for the ease of access that will make the public access to technology with ease through video presentation and using tips clearly mentioned in the website. This will even generate public satisfaction. Test implementation will happen last quarter of 2017 but full implementation should take place first quarter of 2018.
- The challenges are to be reduced with better communication and training. Open communication is to be generated from top to bottom and also bottom to top that will improve the motivation of the employees and training for the new initiatives in the field of services can be adopted through video conferencing and it permits coordination with departments which are geographically distant. More use of modern apps can be used like that of Whatsapp, IMO, Google chat, We chat. and for distant usage VoIP can also be used which will reduce the cost and will enrich open communication. This is one of the latest trends in the public sector which will improve the service facility. Test implementation will happen last quarter of 2017 but full implementation should take place first quarter of 2018.
- There needs to be effective and timely technician availability for the system failure or any other technical failure. The policy of Omanization has reduced the number of expatriates in the technical field more and improved training can be given to the nationalities that will generate better technicians who are nationalities in each of the sector. Technical training can be provided to more nationalities and also to expatriates through considering their potential of performance and thereby more technical availability can be enhanced. This training will start in the first quarter of 2018.
- Gap analysis is to be performed regarding the use and potential of IT and its effectiveness in the performance of the executive secretaries and studies can be performed to reduce the gap and improve the productivity. Gap analysis can be made as a part of performance management and the gap in the performance of the executive secretaries and that of the performance of IT and the entire performance of the public sector can be evaluated and improved for the effectiveness of performance and productivity. This will even improve the value of performance and also effectiveness of the executive secretaries. This can be implemented along with the performance management which will be conducted in the last quarter of 2017.
- The website of each of the public sector needs to demonstrate the manner in which it is to be operated through the sample presentation or detailed guideline which will provide information for the public to access the website and the e-government services that are provided to the public. It is to be given in English as well as in Arabic so that the residence of Oman that includes the nationalities and also the expatriates can access the

website and get the information and service easily from the public sector. This is to be done in the next updates of the website.

- ALGON Office Administration course that provides training on managing the scheduling, coordination organisation of Administrative tasks and workflow with set priorities and record management system to ensure secure, confidential, organised and accessible electronic records for better management of the sector. Business Financial Training Program will provide training on financial management with which advanced techniques for financial projects and integrated modelling can be trained which will improve the management of the financial section of the public sector of Oman.

References

- Abraham, E., (2012), Information technology, an enabler in corporate governance- Corporate Governance, *The international journal of business in society*[online], 12(3), 130.
Available from <http://www.emeraldinsight.com/doi/abs/10.1108/14720701211234555> [3 June 2017]
- Ahmed, S., (2015), *Information technology in Oman*, Oman: Oman Observer
- Alegre, J., (2012), Information technology competency, knowledge processes and firm performance, *Industrial Management & Data Systems* [online], 112(4), 157 Available from
<http://www.emeraldinsight.com/doi/abs/1345/001211233556> [7 June 2017]
- Alexa, D.B., (2015), *Ethical aspects of information technology: issues for senior executives*, Oklahoma: Gretchen Cagle Publications.
- Alvarado, D.S., (2011), *Management Strategies for Information Technology*, New Jersey: Behrman House.
- Andres, V.W., (2014), *The Executive's Guide to Information Technology*, Iowa: Brooklyn Publishers.
- Ashmore, G.M., (2011), Putting Information Technology to Work, *Journal of Business Strategy*[online], 9(5), 87
Available from <http://www.emeraldinsight.com/doi/abs/1345/001211210988> [9 June 2017]
- Atinmo, M.I., (2010), The influence of information technology access on agricultural research in Nigeria, *Internet Research*[online], 20(1)178 Available from <http://www.emeraldinsight.com/doi/abs/1345/001211210607> [7 June 2017]
- Attaran, M., (2013), Information technology and business-process redesign, *Business Process Management Journal*[online], 19(4), 109. Available from <http://www.emeraldinsight.com/doi/full/10.1108/CG-06-2013-0078> [11 June 2017]
- Beard, H.G., (2011), *Information Technology Evaluation*, London: Quarto Publishing.
- Beck, R., (2014), Information Technology in the Clinical Laboratory Sciences, *Laboratory Medicine*[online], 21 (1), 100 Available from <http://ezproxysrv.squ.edu.om:2350/doi/pdfplus/10.1108/09526861011010659> [7 June 2017]
- Beckett, R.R., (2014), *The Ethics of Information Technology*, 2ndedn. New Hampshire: Bunker Hill Publishing.
- Beheshti, H, M., (2014), The impact of IT on SMEs in the United States, *Information Management & Computer Security*[online], 12(4), 356 Available from
<http://ezproxysrv.squ.edu.om:2350/doi/full/10.1108/09526860410563195> [2 June 2017]
- Berry, A., (2011), *Introduction to Information Technology*, New York: Gregory R Miller & Co.
- Boughey, J., (2012), Information needs and information technology in management, *Property Management* [online], 21(4), 129 Available from
<http://www.emeraldinsight.com/doi/pdfplus/10.1108/IJHCQA-11-2015-0136> [14 June 2017]
- Boyer, M., (2010), The impact of IT on the growth and development of insular firms, *Journal of Systems and Information Technology*[online], 12(4), 256 Available from
<http://ezproxysrv.squ.edu.om:2350/doi/pdfplus/10.1108/09526860510619417> [5 June 2017]

- Brakel, P.A., (2011), Teaching information technology: a challenging task, *The Electronic Library*[online], 9(3), 162 Available from <http://www.emeraldinsight.com/2350/doi/pdfplus/10.1108/EUM0000000002035> [16 June 2017]
- Brakel, V., (2011), Management of information technology in academic information services, *Aslib Proceedings* [online], 53(6), 236 Available from <http://www.emeraldinsight.com/2350/doi/pdfplus/10.1108/IJHCQA-10-2013-0119> [21 June 2017]
- Brooke, C., (2014), Information Technology and the Quality Gap, *Employee Relations*[online], 25(4), 140 Available from <http://www.emeraldinsight.com/2350/doi/pdfplus/10.1108/IJHCQA-01-2015-0016> [June 2017]
- Brown, C.V., (2013), Re-assessing the Enabling Role of Information Technology in KM, *Journal of Knowledge Management*[online], 10(2), 166 Available from <http://ezproxysrv.squ.edu.om/2350/doi/pdfplus/10.1108/09526869810199638> [15 June 2017]
- Byrd, T.A., (2012), Toward creating competitive advantage with logistics information technology, *International Journal of Physical Distribution & Logistics Management* [online], 42(1), 126 Available from <http://ezproxysrv.squ.edu.om/2350/doi/pdfplus/10.1108/02637479310048132> [22 June 2017]
- Carroll, N., (2016), So that's what the impact of IT innovation looks like? Examining the socio-technical dynamics of public service innovation, *Journal of Enterprise Information Management*[online], 29(5), 324 Available from <http://www.emeraldinsight.com/2350/doi/pdfplus/10.1108/eb055595> [19 June 2017]
- Chang, D.Y., (2013), Achieving a Coordination Framework of Strategy and Information Technology, *Advances in Hospitality and Leisure* [online], 17(1), 138 Available from <http://ezproxysrv.squ.edu.om/2350/doi/pdfplus/10.1108/EUM0000000002140> [10 June 2017]
- Chapman, P., (2012), Information Technology is Good for You – Isn't It?, *Management Decision*[online], 29(2), 198 Available from <http://ezproxysrv.squ.edu.om/2350/doi/pdfplus/10.1108/EUM0000000007056> [13 June 2017]
- Chase, A.R., (2013), *Strategic Information Technology*, Pennsylvania: Whitaker House Publishing.
- Chloe, W., (2015), *The Physics of Information Technology*, London: Royal Collection Publications.
- Choi, K., (2015), Nanofabrications for Information Technology, *Management Information Journal*[online], 22(1), 200 Available from <http://www.emeraldinsight.com/2350/doi/pdfplus/10.1108/13552519910257032> [27 June 2017]
- Cole, S.T., (2013), European Information Technology Policy, *Aslib Proceedings* [online], 43(2), 90 Available from <http://www.emeraldinsight.com/2350/doi/pdfplus/10.1108/02635570410530702> [22 June 2017]
- Daniella, R.W., (2012), *Measuring the Value of Information Technology*, Delaware: Bay Oak Publishers.
- Davarpanah, M.R., (2011), Level of information technology application in Iranian university libraries, *Library Review*[online], 50(9), 98 Available from <http://ezproxysrv.squ.edu.om/2350/doi/pdfplus/10.1108/EUM0000000000774> [2 June 2017]
- Demetrius, T., (2013), *Global Perspective and Information Technology Management*, California: Manic D Press.
- Dixie, A.W., (2014), *Information Technology in Business Management*, California: AK Press Dunn, C., (2012), *Measuring Value of Information Technology*, London: Hesperus Publishers.
- Erdem, A.S., (2012), Collaborative research: opinions and information technology utilization potential, *Management Research Review*[online], 35(12), 139 Available from <http://ezproxysrv.squ.edu.om/2350/doi/pdfplus/10.1108/eb057484> [9 June 2017]
- Ferguson, S., (2013), Public Information Technology: Policy and Management Issues, *Library Review*[online], 56(5), 222 Available from <http://www.emeraldinsight.com/2350/doi/pdfplus/10.1108/eb057510> [21 June 2017]

- Finlay, P.N., (2011), Measures to assess the impact of information technology on quality management, *International Journal of Quality & Reliability Management*[online], 17(1), 143 Available from <http://www.emeraldinsight.com/2350/doi/pdfplus/10.1108/03055720710838515> [10 June 2017]
- Fitzsimmons, J.A., (2012), Effect of information technology on marketing performance of Korean service firms, *International Journal of Service Industry Management*[online], 10(3), 172 Available from <http://ezproxysrv.squ.edu.om:2350/doi/pdfplus/10.1108/EUM0000000006251> [5 June 2017]
- Francisco, R., (2013), *The Global Issues of Information Technology Management*, Arizona: Schaffner Press Inc.
- Gould, P., (2012), *Business, information technology in the Society*, Rhode Island: AudioGO Publishin
- Gray, F., (2015), *The Art of Strategic Planning for Information Technology*, New York: McPherson & Company.
- Grunberg, D.B., (2013), Case study: information technology at Jackson Hewitt Tax Service, *Journal of Consumer Marketing*[online], 19(3), 126 Available from <http://ezproxysrv.squ.edu.om:2370/doi/pdfplus/10.1108/17410391011083047> [12 June 2017]
- Haley, M., (2014), Information technology and the quality improvement in defense industries, *The TQM Journal*[online], 26(4), 122 Available from <http://ezproxysrv.squ.edu.om:150/doi/abs/10.1108/oir.2001.25.5.329.4> [16 June 2017]
- Halper, H., (2013), Quantifying the financial impact of IT security breaches, *Information Management & Computer Security*[online], 11(2), 123 Available from <http://ezproxysrv.squ.edu.om:5350/doi/pdfplus/10.1108/eb008004> [22 June 2017]
- Hegde, D.S., (2015), *Essays on Research Methodology*, New York: New City Press
- Heim, G. R., (2011), Impacts of information technology on mass customization capability of manufacturing plants, *International Journal of Operations & Production Management*[online], 31(10), 245 Available from <http://ezproxysrv.squ.edu.om:2350/doi/abs/10.1108/00242530710750734> [15 June 2017]
- Hodgson, V., (2010), Information Technology Based Open Learning, *Management Research News*[online], 24(7), 120 Available from <http://ezproxysrv.squ.edu.om:2350/doi/full/10.1108/13620430210414829> [25 June 2017]
- Huang, L., (2015), The impacts of IT capability on internet-enabled supply and demand process integration, and firm performance in manufacturing and services, *The International Journal of Logistics Management*[online], 26(1), 123 Available from <http://ezproxysrv.squ.edu.om:2350/doi/pdfplus/10.1108/14637150010325444> [10 June 2017]
- Hyde, P., (2013), The Consequences of IT for the UK Civil Service, *International Journal of Public Sector Management*[online], 1(2), 291 Available from <http://ezproxysrv.squ.edu.om:2350/doi/full/10.1108/07378831211285040> [9 June 2017]
- Isaiah, F., (2012), *Milestones in Computer Science and Technology*, Illinois: Gregory Publishing.
- Jago, M., (2012), Analysing the impacts of ICT on knowledge work productivity, *International Journal of Management* [online], 21(1), 300. Available from <http://ezproxysrv.squ.edu.om:2350/doi/pdfplus/10.1108/EUM0000000002172> [11 June 2017]
- Jamileh, M. Z., (2013), The impact of IT infrastructures on Iranian nurses' and students' health information-seeking strategies, *Program* [online], 47(4), 209 Available from <http://ezproxysrv.squ.edu.om:2350/doi/pdfplus/10.1108/09685229510793022> [15 June 2017]
- Jaxson, V., (2011), *Causal Mapping in Information Technology*, Edinburgh: Black & White Publishing.
- Jaycee, M., (2010), *Information Technology: An Introduction for Today's World*, Connecticut: Abaris Books.
- Jaylen, G., (2015), *Challenges of Information Technology Education in the 21st Century*, Michigan: Armond Dalton Publishers Inc.
- Jean, B., (2013), An explorative study on the impact of IT capabilities on international key account management capabilities and firm performance in international customer-supplier relationships, *Advances in International*

- Marketing*[online], 24(1), 345 Available from
<http://ezproxysrv.squ.edu.om:2350/doi/pdfplus/10.1108/02635579110139288> [22 June 2017]
- Kans, M., (2012), Impact of IT procurement on the quality of the maintenance process: Results from a study in Swedish industry, *Journal of Quality in Maintenance Engineering* [online], 18(2), 256 Available from
<http://ezproxysrv.squ.edu.om:2350/doi/full/10.1108/02635579810246499> [5 June 2017]
- Karake, Z.A., (2010), Industry turbulence and information technology structure: an empirical investigation, *Management Decision* [online], 54(7), 211 Available from
<http://ezproxysrv.squ.edu.om:2350/doi/full/10.1108/09576059510102235> [9 June 2017]
- Kari, J., (2011), Impacts of Information: An Analysis of Spiritual Messages, *Library and Information Science* [online], 1(1), 123 Available from <http://ezproxysrv.squ.edu.om:2350/doi/full/10.1108/00242530910928942> [17 June 2017]
- Keen, G.W., (2012), Redesigning the organization through information technology, *Planning Review* [online], 29(3), 114 Available from <http://ezproxysrv.squ.edu.om:2350/doi/full/10.1108/09685229410059532> [8 June 2017]
- Kelleher, M.L., (2013), Applying information technology to reengineering, *Planning Review* [online], 21(6), 123 Available from <http://ezproxysrv.squ.edu.om:2350/doi/pdfplus/10.1108/EUM00000000006975> [11 June 2017]
- Kale, S.V., (2015), Advances in Research Methodology, Pennsylvania: Whitaker House Publishing Klatt, E.C., (2015), Information Technology in the Laboratory, *Laboratory Medicine* [online], 23 (3), 199 Available from
<http://emeraldinsight.com/doi/abs/10.1108/el.2002.20.2.158.5> [7 July 2017]
- Kleiner, B.H., (2012), The enabling power of teams and information technology, *Team Performance Management: An International Journal* [online], 21(2), 156 Available from
<http://emeraldinsight.com/2350/doi/full/10.1108/03074801111100481> [16 June 2017]
- Khan, S., (2011), *Research Methodology*, New York: Golden Books
- Kuada, J., (2012), *Research Methodology: A Project Guide for University Students*, Edinburgh: Canongate Publishing
- Kumar, R., (2014), *Research Methodology: A Step-by-Step Guide for Beginners*, London: Sage Publishers.
- Kumar, R., (2010), *Research Steps for the Advanced Learners*, London: Plexus Publishing
- Kwun, D.J., (2011), Information technology applications and competitive advantage in hotel companies, *Journal of Hospitality and Tourism Technology*[online], 2(2), 118 Available from
<http://emeraldinsight.com:2350/doi/pdfplus/10.1108/02635579810227742> [12 June 2017]
- Labrow, P., (2010), Learning to Succeed in Business, with Information Technology, *Industrial Management & Data Systems*[online], 100(6), 148, Available from
<http://emeraldinsight.com/2350/doi/full/10.1108/09685229410058731> [20 June 2017]
- Lozano, R., (2014), *Information Technology for Energy Managers*, North Carolina: Mainland Press.
- Mars, M., (2013), Assessing the Impact of Innovation, *Advances in the Study of Entrepreneurship, Innovation & Economic Growth* [online], 23(1), 257 Available from
<http://ezproxysrv.squ.edu.om:2350/doi/pdfplus/10.1108/00251749910269375> [16 June 2017]
- Matthews, S., (2009), Identity and Information Technology, *Management Information Journal* [online], 24 (2), 265 Available from
<http://ezproxysrvsearch.proquest.com/2350/doi/pdfplus/10.1108/09574090310806549> [20 June 2017]
- Mcdaniel, D.S., (2010), *Outsourcing of Information Technology*, London: Octopus Publishing.
- Mckayla, V., (2015), *Management and Information Technology*, London: Scala Publishers.

- Miller, T.R., (2012), Organization design: the continuing influence of information technology, *Management Information Journal* [online], 40(6), 325 Available from <http://www.emeraldinsight.com/doi/abs/1345/0012112122457> [12June 2017]
- Milstein, J., (2015), How nations compare: Benchmarking use of IT to improve care, *International Journal for Quality in Health Care* [online], 16 (1), 109 Available from <http://www.emeraldinsight.com/doi/abs/1346254612087678> [16 June 2017]
- Ministry of Information (2016)[online], Available from <https://omaninfo.om/english/> [12June 2017] www.omanet.om
- Mirijamdotter, A., (2014), Information Experiences in the Workplace: Foundations for an Informed Systems Approach, *Library and Information Science* [online], 9(1), 260 Available from <http://ezproxysrvsearch.proquest.com2350/doi/pdfplus/10.1108/10650749710187617> [14 June 2017]
- Montealegre, R., (2011), The interplay of information technology and the social milieu, *Information Technology & People* [online], 10(2), 90 Available from <http://ezproxysrv.squ.edu.om:2350/doi/pdfplus/10.1108/13552519910257032> [9 June 2017]
- Munchus, G., (2013), The effects of advanced information technology on organizational design, *Health Manpower Management* [online], 21(2), 165 Available from <http://ezproxysrv.squ.edu.om:2350/doi/full/10.1108/10650749710194439> [14 June 2017]
- Mykytyn, K., (2012), A framework for integrated risk management in information technology, *Management Decision* [online], 37(5), 191 Available from <http://ezproxysrv.search.proquest.com2350/doi/full/10.1108/1065074961015279> [23 June 2017]
- Nash, T.C., (2014), *Strategies for Information Technology Governance*, London: Roli Publishers. National Centre for Statistics and Information [online], Available from <http://www.ncsi.gov.om/Pages/NCSI> [12June 2017]
- Nunez, B., (2013), *Fundamentals of Information Technology*, Massachusetts: Dartmouth Publishing Inc
- Oman Official statistics [online], Available from <https://www.ncsi.gov.om/Pages/NCSI> [12June 2017]
- Otto, A., (2015), Value of IT in supply chain planning, *Journal of Enterprise Information Management* [online], 28(1), 308 Available from <http://search.proquest.com:2350/doi/full/10.1108/00220410310506> [20 June 2017]
- Page, D., (2016), The multiple impacts of IT in the Pubilc Departments, *Journal of Educational Administration* [online], 54(1), 256 Available from <http://ezproxysrv.squ.edu.om:2350/doi/full/10.1108/09576050010378540> [9 June 2017]
- Parker, B., (2013), Maori access to information technology, *The Electronic Library* [online], 21(5), 126 Available from <http://ezproxysrv.search.proquest.com:2350/doi/pdfplus/10.1108/EUM00000000000774> [12June 2017]
- Peled, A., (2010), Creating winning information technology project teams in the public sector, *Team Performance Management: An International Journal* [online], 6(1), 112 Available from <http://ezproxysrv.search.proquest.com:2350/doi/full/10.1108/14684520810897458> [5 June 2017]
- Peruta, V. N., (2013), The impact of IT-based knowledge management systems on internal venturing and innovation: a structural equation modeling approach to corporate performance, *Journal of Knowledge Management* [online], 20(3), 254 Available from <http://www.emeraldinsight.com/doi/abs/1345/001211210607> [7 July 2017]
- Peslak, A.R., (2012), An analysis of critical information technology issues facing organizations, *Industrial Management & Data Systems* [online], 112(5), 144 Available from <http://www.emeraldinsight.com/doi/abs/1345/001211210> [2 July 2017]
- Pitts, K.I., (2015), *Process Innovation: Reengineering Work Through Information Technology*, New York: Simon & Schuster Inc.
- Powner, D.A., (2010), *Information Technology: Management Improvements*, London: Sage Publishers
- Raitt, D., (2013), The impact of IT on indigenous peoples, *The Electronic Library* [online], 21(5), 200 Available from <http://www.emeraldinsight.com/doi/abs/1345/001211235> [1 July 2017]

- Rao, A.B., (2011), *Research Methodology for Management and Social Sciences*, London: Snow books Publishers
- Rivas, T., (2013), *Information Sources in Information Technology*, London: Co & Bear Productions.
- Rodriguez, B., (2011), *Business Strategies for Information Technology Management*, Wyoming: Western Sporting Publications.
- Sariah, U., (2011), *Information Technology and Sustainability*, Texas: Imprimatur Press.
- Schwalbe, K., (2013), *Information Technology Project Management*, New Hampshire: Bunker Hill Publishing
- Shirish, T., (2014), *Research Methodology in Education*, New York: Golden Books
- Shobeiri, S. S., (2013), The relative impacts of experiential and transformational benefits on consumer-brand relationship, *Journal of Product & Brand Management* [online], 25(6), 270 Available from <http://www.emeraldinsight.com/doi/abs/1345/001211210> [20 June 2017]
- Singh, Y.K., (2010), *Research Methodology*, North Carolina: Mainland Press
- Stanley, V.C., (2013), *Business Technology Organization*, New York: Melville House Publishing.
- Stephenson, P., (2014), The impact of tactical and strategic automation, *Facilities* [online], 18(7), 321 Available from <http://www.emeraldinsight.com/doi/abs/1345/001211210607> [11 June 2017]
- Suvanto, E., (2015), Impacts of poor quality of information in the facility management field, *Facilities* [online], 33(5), 450 Available from <http://www.emeraldinsight.com/doi/abs/15418873987> [9 June 2017]
- Swanson, N., (2010), *Emerging Information Technology: Improving Infrastructure*, London: Verso Publishers.
- Talluri, S., (2013), Influence of information technology investment on firm productivity: a cross-sectional study, *Logistics Information Management* [online], 22(1), 102 Available from <http://www.emeraldinsight.com/doi/abs/1224524570809875> [5 June 2017]
- Tandon, S., (2013), *Research Methodology in Social Sciences*, New York: McPherson & Company
- Teeroovengadum, V., (2011), Impact of information technology on quality management dimensions and its implications, *European Business Review* [online], 23(6), 354 Available from <http://www.emeraldinsight.com/doi/abs/111987895345> [24 June 2017]
- Torres, J.T., (2012), Information technology-enabled quality performance: an exploratory study, *Industrial Management & Data Systems* [online], 112(3), 109 Available from <http://www.emeraldinsight.com/doi/abs/15675631211210607> [12 June 2017]
- Tran, L.A., (2008), Handbook of Research on Public Information Technology, *Library Hi Tech* [online], 26(3), 111 Available from <http://www.emeraldinsight.com/doi/abs/1565671568> [19 June 2017]
- Uchida, T., (2012), Disseminating information technology at the kominkan: a strategy for facilities management, *Facilities* [online], 27(7), 136 Available from <http://www.emeraldinsight.com/doi/abs/1343465/001211789> [16 June 2017]
- Vuolle, C., (2014), Methods for identifying and measuring the performance impacts of work environment changes, *Journal of Corporate Real Estate* [online], 18(3), 255 Available from <http://www.emeraldinsight.com/doi/abs/156845/0012145> [9 June 2017]
- Westney, L.H., (2010), A trivial pursuit? Information technology and the tenure track, *Campus-Wide Information Systems* [online], 17(4), 99 Available from <http://www.emeraldinsight.com/doi/abs/1345/001211210245> [22 June 2017]