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The Conceptual Perspective of the Determinants of Government's Information Technology Innovativeness

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Abstract:
Government Information Technology Innovativeness defined as notion of openness to new information technology ideas in the government as an aspect of an organizational culture. In adopting the information technology innovativeness, management support, IT readiness and government strategy plays a crucial effect. Misunderstood organizational characteristics within information technology innovativeness may generate unrealistic or inaccurate outcomes. Unfortunately, the effect of organizational context is nearly ignored in information technology innovativeness literature. In response, using the Resources based view (RBV) and Diffusion-Innovation-Theory (DIT), this paper argues on the interaction between the influence of organizational characteristics (management support, information technology readiness, government strategy), so as to explain information technology innovativeness. This proposition could improve understanding the information technology innovativeness and help to resolve inconsistency of findings in the literature.
Keywords: organizational characteristics; information technology innovativeness; Palestine, public sector

INTRODUCTION

The key purpose of this conceptual paper is to translate the determinants for government's innovativeness of information technologies in the public sector, which have paying very less attention by researchers notwithstanding its vast critical to the technological advancement in public sector (Kapoor, Dwivedi, & Williams, 2014; Rashidi, Begum, Mokhtar, & Jacqueline, 2014). This research deliberates technologies innovation in the public sector of the local government in Gaza strip-Palestine. These innovations happened on different governmental institutions publicity and governmental routine across Gaza strip-Palestine.

Nowadays the governments and people is very aware about governmental working process and provided public services in the public sector and day by day all of the public sector need better and quick development in the governments (Mergel, 2013). The government responsibility in promoting the institutional service to the public sector is important but local government in Gaza strip - Palestine are not willing to give this important attention to the ways to develop the governmental institutions working process by the information technology (Claypool, 2013). In addition, they are not looking how to Facilitate the process of providing the public services by using the information technology (Hamada, 2014). a study conducted about the Online Communication in Gaza strip revel that there is less response from government concerned about information technology implementations (Carano, Stuckart, & Whittaker, 2013). Furthermore empirical study indicating the information technology innovation implementation in the local government in Gaza strip - Palestine reveal that the government show negative attitude towards information technology innovation which dissatisfies the public sector from the governmental work (El-Naby & Ashour, 2015).

The public sector always think about better service and sharp process to complete, but it turns into negative thinking when it is related to the local government in Gaza strip - Palestine. Along with the complications of efficiency and international benchmarking, the changing wants and needs of public sector (people & government) are demanding enlarged technological innovation in the governmental work and progress (Al-Madhoun, 2007), all private and non-private and NGOs sectors are demanding more facilities that include advancing public serving, governmental progress, and communication technologies, etc. The current technological progress of the local government in Gaza strip-Palestine and public sector is greatly less satisfactory and acceptable when consider many other governments (Shaqfa, 2014). Therefore, the local government in Gaza strip-Palestine require increasing its rate of technological innovation, chiefly in public serving sector, to confirm sustainability and advantages for further development and improvement (Sabella, 2013).

Furthermore, the researcher found studies, which is providing confirmation regarding the implementation of information technology innovation in the local government in Gaza strip - Palestine. Low rate of information technology in the Gaza strip local government is dedicated, demonstration of the government working efficiency and toward public and publicity they are not dedicated to provide high effectiveness (Sultan, 2011). The public sector in Gaza strip require the government in Gaza strip to Keep up with technology in the governmental working process (Lubbad & Ashour, 2014; Shat, Mousavi, & Pimenidis, 2014).

There is still little research progress in the area regarding government information technology innovation implementation and adoption even though it is important and necessary with publicity receipts for the new services and with high prioritization of the GDP if we compared to other private sector or to the local government in west bank during the past decades (Etkes & Zimring, 2015; Hassan & El-Essy, 2014), the local government in Gaza strip-Palestine is one of the most important sectors in the Palestine, and also conceder as one of the larger employers in Gaza strip (Enshassi, Mohamed, & Abushaban, 2009). The low rate of technological improvement in the local government in Gaza strip-Palestine has caused worries regarding governmental institutions progress and providing the public services (Messerschmid, 2011). The research of PILLA (2015) warned that one of the major determinants for the survival of local government in Gaza strip-Palestine and there services providing is the ability of local government in Gaza strip-Palestine to improve and implement advanced design of technologies.

Earlier studies have been showed in different countries in different service organization but public sector, as per researcher's knowledge, remnants untouched. Hereafter, empirical study is certainly needed in order to identify the relationship of the management support, Information technology readiness, and government strategy and government information technology innovativeness.

LITERATURE REVIEW

Underpinning Theories

Resource-Based View

According to the resource-based view, an organization is defined as a collection of resources (Barney, 1991; Foss, 1998; Perrigot & Pénard, 2013). An organization's resources include all assets, capabilities, organizational processes, knowledge, and so on that enable the organization to conceive and implement strategies that improve efficiency and effectiveness (Barney, 1991; Zheng, Chen, Huang, & Zhang, 2013). In other words, by continuously acquiring and developing tangible and intangible resources and distinctive skills, an organization can create barriers to entry and obtain a competitive advantage (Perrigot & Pénard, 2013; Peteraf, 1993). However, to provide a sustainable advantage, a resource has to be valuable, rare, inimitable, and no substitutable (Barney, 1991; Perrigot & Pénard, 2013). Moreover, the resource-based view posits that innovative strategies for example information technology, are strongly driven by existing resources, which means that an organization conceives its strategy as a fit of the capabilities and exploit its available resources toward yielding activities (Perrigot & Pénard, 2013).

The resource-based view has been used or partly used with combination of other theories to explain factors affecting information technology innovation (Ramdani & Kawalek, 2007). Iacovou, Benbasat, and Dexter (1995) defines the organizational readiness as "the availability of the needed organizational resources for adoption". They found this factor to influence EDI (Electronic Data Interchange) adoption. Chau (2001) argues that one of the main inhibitors of EDI adoption among SMEs is not possessing sufficient knowledge and skills about the technology. Mehrtens, Cragg, and Mills (2001) found that adoption inside the firms is influenced by organizational readiness which includes the ability to invest in the technology innovativeness which represented by the financial resources. Thong (2001) examines resource constraints on information technology implementation in Singaporean firms. His results show that organizations with successful information technology innovativeness tend to have adequate information technology innovation readiness and high management support. Caldeira and Ward (2003) identify two factors that determined the relative success in the adoption and use of information technology systems in selected manufacturing SMEs: management perspectives and support towards information technology systems adoption and use; and development of internal information technology systems competences. For the management perspectives, this study represent it in the public sector by the government strategy.

Zheng et al. (2013) developed and test a theoretical model to investigate the adoption of government-to-government (G2G) information systems in public administration organizations. Specifically, this model explains how top management support affect the new technology innovativeness, which finally leads to the adoption decision; In particular, the extent of the top management support toward new technology adoption, to a large extent, reflects the beliefs and behaviors of the top management. Indeed, top management support means that the top management in an organization believes in and signals the importance of a technology to the organization (W. Lewis, Agarwal, & Sambamurthy, 2003). This support has been identified as one of the organizational capability in Resource Based View (Wade & Hulland, 2004; Zheng et al., 2013). Studies applying resource based view theory found that it was proactive organizations who performed better with technology innovativeness because they used it to support their strategies, and because they developed technology innovativeness capabilities (Caldeira & Ward, 2003; Rivard, Raymond, & Verreault, 2006). Yeh, Lee, and Pai (2012) Another empirical study in Taiwan about the information system capability, used the resource based view theory, stated that the organization strategy is one of the important intangible organization resources. Zhang and

Dhaliwal (2009) he study the resource-based theoretic factors in technology adoption, and he studied the technology ability to invest as one of the organization's capability. Caldeira and Ward (2003) mentioned that one of the capabilities and resources is managerial knowledge which including the strategies. Zhu and Kraemer (2005) in there research they used the Information technology readiness as financial recourse required for the technology innovativeness, in the same research findings they stated that, the resource-based theory suggests the organization strategy as an important source of technology innovativeness value.

Here, we use the resource-based view (Barney, 1991; Perrigot & Pénard, 2013), to investigate the determinants of government information technology innovativeness. This theory hypothesizes internal resources, competencies and capabilities (tangible and intangible assets, knowledge, etc.) are key drivers for Information technology readiness strategy and in result affect that government information technology innovativeness. Top management support, Information technology readiness, government strategy, are relevant and valuable resources and capabilities to measure government information technology innovativeness. And there is technology innovation research conducted by Venkatesh and Bala (2012),stated that for the related future work should employ resource-based view theory.

Diffusion of InnovationTheory (DOl)

Rogers introduced this theory since 1962. It is one of the most popular theories used to study information system and technology innovativeness (Abdul Hameed & Counsell, 2012; Mohamad & Ismail, 2009; Pervan, Bajwa, & Floyd Lewis, 2005; Weerakkody, Dwivedi, & Irani, 2009). This theory explains innovation diffusion as a process by which an innovation is communicated through certain channels over time among the members of a social system (Rogers, 2003). As stated in this definition, there are four elements of innovation diffusion: innovation, time, communication channels, and social system table 1 shows the definition of each element.

Table 1: Diffusion Innovation Elements as Defined by Rogers (2003)

Items	**Description**
Innovation	An idea, practice, or project that is perceived as new.
Time	Length of time required to pass through the innovation-decision process.
communication channels	A process in which participants create and share information with one another in order to reach a mutual understanding.
Social System	A set of interrelated units engaged in joint problem solving to accomplish a common goal.

For Rogers (2003), the adoption of an innovation is a decision making process. It involves activities of information searching and processing. The adoption process goes through five stages. This process starts from the knowledge stage where the potential adopters become aware of the existence of innovation in the next stage, the persuasion stage, the potential adopter engages in information search and gathering activities to shape favorable or unfavorable attitude toward an innovation the potential adopter is heavily influenced by the innovation characteristics in this stage. Subsequently, the potential adopter in the decision stage weighs the advantages and disadvantages of using an innovation and then decides whether to accept or reject the focal innovation Rogers (1985) argued that the innovation characteristics account for 49% to 85% rate of the adoption of any innovation If the innovation is accepted, the adopter will proceed to the implementation stage where an innovation will be placed into practice.

For Rogers, potential adopters hold different degrees of willingness to adopt an innovation As a result, decision to adopt an innovation is almost normally distributed over time (Rogers, 1995). Rogers classified the adopters into the following five categories: innovators, early adopters, early majority, late majority, and laggards (Rogers, 1995). Further, Rogers' empirical work showed that adoption has a life cycle and it follows the pattern of S-shaped curve. Rogers explained that at the initial stage of the life cycle of innovation, the proportion of adopters starts low. With the passage of time, the proportion of adopters regularly increases until it reaches the peak in the mature stage of the life cycle of innovation However, the adoption rate will decrease in the final stage of the life cycle of innovation.

The DOl theory at the organization level identifies three influencing contexts affecting the organization's innovativeness. These are management characteristics, organizational strategy and structure, and the organizational redenies and openness. DOI theory suggests that the presence of leaders' positive attitude toward change, higher organizational redenies, and organization structure positively affect an organization's innovativeness while formalization and centralization negatively affect an organization's innovativeness.

Prior studies have used DOl to demonstrate the adoption of information technology innovativeness and adoption. Researchers have confined its ability to explain the information technology innovativeness (Sugarhood, Wherton, Procter, Hinder, & Greenhalgh, 2014; Thatcher, Foster, & Zhu, 2006; Zhu, Kraemer, & Xu, 2003).

Fundamental Elements of Knowledge Management

Management Support

Nowadays governments operate in an environment characterized by rapid pace of technological change (Shokralla, Spall, Gibson, & Hajibabaei, 2012). Governments need to renew themselves, as they face many challenges such as complexity of providing the public services, and changing nature of the governmental work and publicity within institutions. This change requires management support to the government's information technology innovativeness (M. Lewis, Åhlström, Yalabik, & Mårtensson, 2013).

Furthermore, Public institutions are seeking to improve their administrative goals and methods, in accordance with its environmental conditions, by modifying the organizational culture in line with technology. Given that technology progress is accelerating, the subject of technology impact on organizational culture occupies a growing interest (Vaccaro, Jansen, Van Den Bosch, & Volberda, 2012).

In addition, the role of management appears to be crucial in achieving synergy between the activities and operations in the public institutions, because management is an important source to achieve organizational goals. Management is responsible of the understanding the organizational principles and values of its employees and workers, in addition to generating synergy and compatibility between them (Manna, 2012; Turban & Volonino, 2010).

On the other side of government's information technology innovativeness, the outstanding role played by the management support became obvious in the success of the various organizations (Jansen, De Leeuw, Hoeijmakers, & De Vries, 2012). This requires considering the management support importance, to provide and create the success conditions of achieving the goals, to satisfy the needs of organization, giving them greater autonomy, innovativeness and creativity (Ifinedo, 2007).

We found that Management support is an important and critical issue to implement and adopt the information technology innovation in the local government in Gaza strip – Palestine that lead to achieve and maintain a critical advantage. As there is a continual recognition of the vital role of management in identifying, exploiting opportunities and making decisions that government's information technology innovativeness to add value to the public institutions and governments working process (el-ghorra, 2011; Elenkov, Judge, & Wright, 2005).

However the interaction between management and innovation received significant attention by researchers (Kim, Kumar, & Kumar, 2012; Sharma & Rai, 2003; West et al., 2003).

Wherefore many studies that examined the relationship between top management and innovation indicated that top management positively affects innovation, and that there is a positive connection between innovation and routine of governmental instigation (Bowen, Rostami, & Steel, 2010; Ryan & Tipu, 2013). The dynamics of working conditions in developing countries pose challenges to top management, where the need for government's information technology innovativeness stands out as a major contributing tool to gain a sustainable advantage for survival in the public sector (Chandiwana, 2013).

Consequently, Management plays an essential role in detection of information technology innovations by providing the appropriate environment, and making decisions that enhance the creation and execution of knowledge successfully (Mason, 2015).

Many researchers pointed out that management plays an important role in organizational outcomes (Agbim, 2013; Chahine & Goergen, 2013) .Many other researchers suggested that management support have a key role in influencing the adoption of information technology innovational activities in organizations (Denti & Hemlin, 2012; Kim et al., 2012; Makri & Scandura, 2010).

INFORMATION TECHNOLOGY READINESS

Information technology is becomes a public denominator in the competitive and development stance of today's institutions. Several organization investing in and have becoming reliant on information technology readiness. This understood to be the case at the professional, enterprise, national, and public services stages and e-government (Gordon, 2014).

The heavy force behind investments in government's information technology innovativeness by governments seems to be strategically oriented (Huscroft, Hazen, Hall, & Hanna, 2013). Although according to Blomström, Globerman, and Kokko (2001) the implementation of information technology innovation by governments may not be acceptable and in fact may not deliver the strategic assistances primarily envisaged.

Noteworthy, Montealegre (2012) do make the fact that if governments are to gain an advantage through the investing in the government's information technology innovation then they required to think contrarily about how they conduct their work by redesigning government strategy.

If governments are planned strategically to obtain the full possible of government's information technology innovativeness then they required to assess its indirect and direct rewards and costs prior to its employments and implementations, as investments in government's information technology innovativeness can form a significant part of a government's capital spending (Wixom & Watson, 2001).

Because government's information technology innovativeness is painstaking to be a big investment many

governments frequently, find it hard to defend its readiness attributable to their low benefit limits. It is so important for management to be certain that readiness in g government's information technology innovativeness are defendable and defensible (Gao, 2015).

Gerst (2011) proposes that government characteristically defend their defendable investments on an unofficial source making decisions based on their individual observations of possible benefits and costs. On the comparable note Colecchia and Schreyer (2002) recommend that one of the main difficulties governmental institution have in creation of real Information technology readiness is their incapability to measure and predict the outcome benefits.

GOVERNMENT STRATEGY

The research provides an argument on the strategic for information technology innovativeness. How the governmental Excellence can be supplemented, particularly relevant for governmental self-assessment of strategy in information technology innovation implementation and adoption.

An government's information technology innovativeness strategy must be closely connected to the government vision and overall governmental institutions strategies (Iveroth, Fryk, & Rapp, 2013), according to the relevant information and comprehensive both from inside the governmental institutions. In addition, the Communication and direction management strategy are the strength of the strategy for government's information technology innovativeness (Nawaser, Shahmehr, Kamel, & Vesal, 2014).

So continuous improvement of the information technology Innovation are based on the governmental institution's capability to learn and be creative (Rutten et al., 2014).

Then debate that an comprehensive strategy is needed when formulating strategies for information technology innovativeness (Iveroth et al., 2013). The emphasis of this section, is for achieving superiority in strategic Planning in information technology innovation administration. To develop the full situation in which innovation takings place namely a strategies regarding information technology innovation and learning organizations (Martensen & Dahlgaard, 1999).

Several researches show that it is significant for government's strategies to connection of information technology innovativeness to overall governmental strategies and visions (Rashidi et al., 2014; Teece, 2007) for an argument of these researches. Management should develop a clear vision for the government institutions.

So the vision can be supposed as an institution's probable and required future state, which is each time better than what occurs today (Friend & Jessop, 2013). In addition, vision must include what leaders imagine of information technology innovations adoption and the new service region in general. For example how leaders expect the development of the goals to be reached, what characters are set up to the new public serves or governmental process (Rego, Sousa, Marques, & e Cunha, 2012).

According to Carlo, Gaskin, Lyytinen, and Rose (2014) a continuing strategy planning where information technology innovations are a main matter has to be formulated. It's not adequate in the long term to improve and present public serving and governmental process as a response to the environment conditions cooperation between all governmental departments and institutions will hardly be attained under these circumstances.

Hsing, Yin, Teng, and Hsu (2013) say that an whole governmental strategy must involve a comprehensive strategy for information technology innovativeness to serve the public and the governmental procedures, link new information technology innovation strategy to the institutions goals, set up strategies for which technologies to choose, and what kind of screening criteria to use.

CONCEPTUAL FRAMEWORK

Fig. 1 depicts the proposed framework of the present paper. In case potential adopters perceive a coercive management support, IT readiness and government strategy their decision will be based on the partner's imposition in order to avoid negative consequences instead of being based on the evaluation of innovation organizational characteristics, productivity, and efficiency as suggested by DIT and RBV. In other words, characteristics of organizational innovation may play an insignificant role in adoption decision if the potential adopters perceive inappropriate management support, IT readiness and government strategy. In contrast, when potential adopters perceive an appropriate management support, IT readiness and government strategy, will avail the opportunity for potential adopters to evaluate the innovation characteristics in order to make adoption decision. In this case, innovation organizational characteristics will play dominant role in determining the innovation adoption decision.

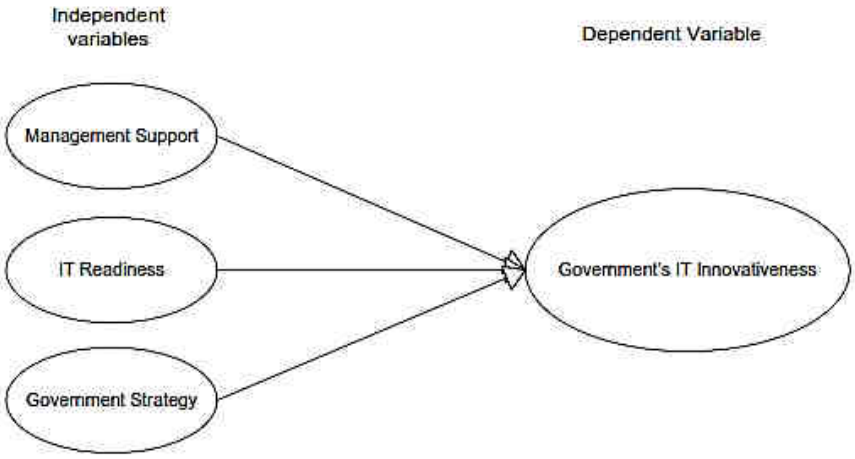

Fig. 1. Proposed Research Framework

RESEARCH METHODOLOGY

This study focuses on examining the determinant of the information technology innovativeness and adoption in the local government in Gaza strip - Palestine. Low rate of information technology in the Gaza strip local government is dedicated (Sultan, 2011). . This study, therefore, considers 922 managers in the ministers of the Gaza strip-Palestine local government directory as a sampling frame to study this issue. Since the research objective is to examine the determinants of determinant of the information technology innovativeness and adoption in the local government in Gaza strip - Palestine, the unit of analysis is the organization. The targeted respondent all manager at the Palestinian ministries in the Gaza strip with grades General Director (A3), General Director (A4), Deputy Director (A), Unit managers (B) and Unit manager (C) they were (922). They generally have extensive IT knowledge and the about the governmental working process and processes and they have the ability to complete the questionnaire. An online internet questionnaire is considered for the data collection. There are three sections in the survey questionnaire. The first section is designed to collect demographic information relating to the respondents such as their: age, gender, Qualification, Job Title, Years of Experience, and working Ministry. The second section collects data about the government's information technology innovativeness. The last section collects data about factors affecting government's information technology innovativeness. In this section, the questions have been built to proceed logically with one question linking to the next. Questions were three categorized divided to the independent variables and the moderator variable.

Conclusion

This conceptual paper discusses the determinants for government's innovativeness of information technologies in the public sector and adoption decision and explains the usage of different influence strategy may affect the role of other factors in information technology innovativeness and adoption decision. This concept paper suggests and encourages future work to examine the effect of management support, IT readiness and government strategy to explain information technology innovativeness and adoption decision. In the next stage of this study, authors intend to investigate whether an influence strategy plays a significant effect of information technology innovativeness determinants to explain information technology innovativeness and adoption decision. By doing so, managers and policy makers can utilize the findings of this study to understand which factors would most likely facilitate the information technology innovativeness and adoption. In addition, the findings of this paper are to enable the managers and policy makers to manage the effects of these factors more effectively.

References:

Abdul Hameed, M., & Counsell, S. (2012). Assessing the influence of environmental and CEO characteristics for adoption of information technology in organizations. Journal of technology management & innovation, 7(1), 64-84.

Agbim, K. C. (2013). The relative contribution of management skills to entrepreneurial success: A survey of small and medium enterprises (SMEs) in the trade sector. International Organization of Scientific Research Journal of Business and Management, 7(1), 08-16.

Al-Madhoun, M. Z. (2007). Managerial Obstacles Facing the Gaza Seaport Project. Islamic University-Gaza.

Barney, J. (1991). Firm resources and sustained competitive advantage. Journal of management, 17(1), 99-120.

Blomström, M., Globerman, S., & Kokko, A. (2001). The determinants of host country spillovers from foreign

direct investment: review and synthesis of the literature. Inward investment, technological change and growth, 1, 34-65.

Bowen, F. E., Rostami, M., & Steel, P. (2010). Timing is everything: A meta-analysis of the relationships between organizational performance and innovation. Journal of Business research, 63(11), 1179-1185.

Caldeira, M. M., & Ward, J. M. (2003). Using resource-based theory to interpret the successful adoption and use of information systems and technology in manufacturing small and medium-sized enterprises. European Journal of Information Systems, 12(2), 127-141.

Carano, K., Stuckart, D., & Whittaker, E. (2013). The Potential of Online Communication Tools for Global Awareness: A Case Study of US PreService Teachers Skype Experiences with Gaza Residents. Paper presented at the Society for Information Technology & Teacher Education International Conference.

Carlo, J. L., Gaskin, J., Lyytinen, K., & Rose, G. M. (2014). Early vs. late adoption of radical information technology innovations across software development organizations: an extension of the disruptive information technology innovation model. Information systems journal, 24(6), 537-569.

Chahine, S., & Goergen, M. (2013). The effects of management-board ties on IPO performance. Journal of Corporate Finance, 21, 153-179.

Chandiwana, T. (2013). An assessment of citizen benefits of enterprise resource planning systems in municipalities.

Chau, P. Y. (2001). Inhibitors to EDI Adoption in Small Businesses: An Empirical Investigation. J. Electron. Commerce Res., 2(2), 78-88.

Claypool, A. L. (2013). State 194: Assessing the Institutional Capacity of the Palestinian Authority as the Foundation for an Independent State.

Colecchia, A., & Schreyer, P. (2002). ICT investment and economic growth in the 1990s: is the United States a unique case?: a comparative study of nine OECD countries. Review of Economic Dynamics, 5(2), 408-442.

Denti, L., & Hemlin, S. (2012). Leadership and innovation in organizations: A systematic review of factors that mediate or moderate the relationship. International Journal of Innovation Management, 16(03), 1240007.

el-ghorra, m. h. d. (2011). the influence of knowledge sharing on the level of innovation" a field study for managers at the palestinian ministries in the gaza strip. islamic university of Gaza, 326(23).

El-Naby, N. R. A., & Ashour, Y. H. (2015). Prioritizing Critical Success Factors for Incubated Information and Communications Technology Enterprises in Gaza Using Analytical Hierarchy Process (AHP).

Elenkov, D. S., Judge, W., & Wright, P. (2005). Strategic leadership and executive innovation influence: An international multi-cluster comparative study. Strategic management journal, 26(7), 665-682.

Enshassi, A., Mohamed, S., & Abushaban, S. (2009). Factors affecting the performance of construction projects in the Gaza strip. Journal of civil engineering and management, 15(3), 269-280.

Etkes, H., & Zimring, A. (2015). When trade stops: Lessons from the Gaza blockade 2007–2010. Journal of International economics, 95(1), 16-27.

Foss, N. J. (1998). The resource-based perspective: an assessment and diagnosis of problems. Scandinavian Journal of management, 14(3), 133-149.

Friend, J., & Jessop, N. (2013). Local Government and Strategic Choice (Routledge Revivals): An Operational Research Approach to the Processes of Public Planning: Routledge.

Gao, P. (2015). Government in the catching-up of technology innovation: Case of administrative intervention in China. Technological Forecasting and Social Change.

Gerst, K. J. (2011). Evaluating the impact of government energy R&D investments through a multi-attribute utility-based decision tool. Massachusetts Institute of Technology.

Gordon, K. (2014). THE USE OF MOBILE TECHNOLOGY IN PROFESSIONAL PLANNING AND LOCAL GOVERNMENT PRACTICE.

Hamada, I. j. (2014). the role of electronic transaction in developing the local government performance. [theses]. Islamic university of gaza.

Hassan, A. M., & El-Essy, M. (2014). Towards Sustainable Urban Livelihoods and Poverty Reduction in Gaza: The Role of Partnership and Appropriate Technology Technologies for Sustainable Development (pp. 171-183): Springer.

Hsing, M. Y.-L., Yin, S.-H., Teng, L.-Y., & Hsu, T.-T. (2013). New Role of Local Government for Industry Innovation Through R&D Alliance Strategy: A Case Study of STTRA. International Journal of Science and Engineering, 3(1), 13-24.

Huscroft, J. R., Hazen, B. T., Hall, D. J., & Hanna, J. B. (2013). Task-technology fit for reverse logistics performance. The International Journal of Logistics Management, 24(2), 230-246.

Iacovou, C. L., Benbasat, I., & Dexter, A. S. (1995). Electronic data interchange and small organizations: adoption and impact of technology. MIS quarterly, 465-485.

Ifinedo, P. (2007). Interactions between organizational size, culture, and structure and some IT factors in the context of ERP success assessment: an exploratory investigation. The Journal of Computer Information

Systems, 47(4), 28.
Iveroth, E., Fryk, P., & Rapp, B. (2013). Information technology strategy and alignment issues in health care organizations. Health care management review, 38(3), 188-200.
Jansen, M. W., De Leeuw, E., Hoeijmakers, M., & De Vries, N. K. (2012). Working at the nexus between public health policy, practice and research. Dynamics of knowledge sharing in the Netherlands. Health Res Policy Syst, 10(1), 33.
Kapoor, K. K., Dwivedi, Y. K., & Williams, M. D. (2014). Rogers' innovation adoption attributes: a systematic review and synthesis of existing research. Information Systems Management, 31(1), 74-91.
Kim, D.-Y., Kumar, V., & Kumar, U. (2012). Relationship between quality management practices and innovation. Journal of Operations Management, 30(4), 295-315.
Lewis, M., Åhlström, P., Yalabik, B., & Mårtensson, P. (2013). Implementing advanced service technology in the public sector: an exploratory study of the relevance and limitations of insights from private sector manufacturing technology implementation. Production Planning & Control, 24(10-11), 916-930.
Lewis, W., Agarwal, R., & Sambamurthy, V. (2003). Sources of influence on beliefs about information technology use: an empirical study of knowledge workers. MIS quarterly, 657-678.
Lubbad, R. R., & Ashour, Y. (2014). Towards An Abbreviated Model of IT governance for Palestinian government sector According to COBIT 5 framework.
Makri, M., & Scandura, T. A. (2010). Exploring the effects of creative CEO leadership on innovation in high-technology firms. The Leadership Quarterly, 21(1), 75-88.
Manna, A. Q. (2012). Evaluation of the role of top management in achieving synergy between organizational structure and information technology in communications and banking sectors. Doctoral theses, Amman Arab University, Jordan, 210(22).
Martensen, A., & Dahlgaard, J. J. (1999). Strategy and planning for innovation management-supported by creative and learning organisations. International Journal of Quality & Reliability Management, 16(9), 878-891.
Mason, P. L. (2015). Diffusion of Electronic Health Records in Rural Primary Care Clinics. WALDEN UNIVERSITY.
Mehrtens, J., Cragg, P. B., & Mills, A. M. (2001). A model of Internet adoption by SMEs. Information & Management, 39(3), 165-176.
Mergel, I. (2013). A framework for interpreting social media interactions in the public sector. Government Information Quarterly, 30(4), 327-334.
Messerschmid, C. (2011). Water in Gaza: Problems and Prospects.
Mohamad, R., & Ismail, N. A. (2009). Electronic commerce adoption in SME: The trend of prior studies. Journal of Internet Banking and Commerce, 14(2).
Montealegre, R. (2012). A Process Model of Government Intervention and Capability Development: Lessons from the Technology Cluster Formation in Hyderabad, India. Journal of Global Information Technology Management, 15(1), 25-52.
Nawaser, K., Shahmehr, F. S., Kamel, A., & Vesal, S. M. (2014). Assessing the Relationship between Strategy and Organizational Culture in an Iranian Manufacturing Industry. Asian Social Science, 10(21), p175.
Perrigot, R., & Pénard, T. (2013). Determinants of e-commerce strategy in franchising: A resource-based view. International Journal of Electronic Commerce, 17(3), 109-130.
Pervan, G., Bajwa, D., & Floyd Lewis, L. (2005). A study of the adoption and utilization of seven collaboration technologies in large organizations in Australia and New Zealand. Journal of Global Information Technology Management, 8(2), 5-26.
Peteraf, M. A. (1993). The cornerstones of competitive advantage: a resource-based view. Strategic management journal, 14(3), 179-191.
PILLA, F. (2015). Projection of Future Climate by Multi-Model Median Approach under GIS Environment along the Gaza Strip, Palestine.
Ramdani, B., & Kawalek, P. (2007). SMEs & IS innovations adoption: a review & assessment of previous research. Academia. Revista Latinoamericana de Administración(39), 47-70.
Rashidi, M. N., Begum, R. A., Mokhtar, M., & Jacqueline, J. (2014). Criteria towards Achieving Sustainable Construction Through Implementation of Environmental Management Plan (EMP). Advanced Review on Scientific Research, 1(1), 43-64.
Rego, A., Sousa, F., Marques, C., & e Cunha, M. P. (2012). Authentic leadership promoting employees' psychological capital and creativity. Journal of Business research, 65(3), 429-437.
Rivard, S., Raymond, L., & Verreault, D. (2006). Resource-based view and competitive strategy: An integrated model of the contribution of information technology to firm performance. The Journal of Strategic Information Systems, 15(1), 29-50.
Rogers, E. M. (1995). Diffusion of Innovations: modifications of a model for telecommunications. Die Diffusion von Innovationen in der Telekommunikation, 17, 25-38.

Rogers, E. M. (2003). Elements of diffusion. Diffusion of innovations, 5, 1-38.
Rutten, L. J. F., Ebbert, J., Greene, S. M., Mazor, K., Nekhlyudov, L., & Dearing, J. W. (2014). social marketing to support adoption, evaluation, and continuous improvement of health information technologies in clinical care. International Journal of Medical and Biological Frontiers, 20(2), 179.
Ryan, J. C., & Tipu, S. A. (2013). Leadership effects on innovation propensity: A two-factor full range leadership model. Journal of Business research, 66(10), 2116-2129.
Sabella, A. R. (2013). Strategic management training and development: An exploration into the extent and nature of senior and middle managers' development in the Palestinian telecommunication sector. University of Bradford.
Shaqfa, K. M. A. (2014). Human Resource Development Factors Among Civil Services Employees In Ministry Of Health, Gaza Strip Palestine. Universiti Sains Malaysia.
Sharma, S., & Rai, A. (2003). An assessment of the relationship between ISD leadership characteristics and IS innovation adoption in organizations. Information & Management, 40(5), 391-401.
Shat, F. J., Mousavi, A., & Pimenidis, E. (2014). Electronic Government Enactment in a Small Developing Country–the Palestinian Authority's Policy and Practice E-Democracy, Security, Privacy and Trust in a Digital World (pp. 83-92): Springer.
Shokralla, S., Spall, J. L., Gibson, J. F., & Hajibabaei, M. (2012). Next-generation sequencing technologies for environmental DNA research. Molecular ecology, 21(8), 1794-1805.
Sugarhood, P., Wherton, J., Procter, R., Hinder, S., & Greenhalgh, T. (2014). Technology as system innovation: a key informant interview study of the application of the diffusion of innovation model to telecare. Disability and Rehabilitation: Assistive Technology, 9(1), 79-87.
Sultan, S. S. (2011). Knowledge, Innovation and New Technologies for Sustainable Development: Case of the Occupied Palestinian Territory. GSTF Business Review (GBR), 1(1), 266.
Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. Strategic management journal, 28(13), 1319-1350.
Thatcher, S. M., Foster, W., & Zhu, L. (2006). B2B e-commerce adoption decisions in Taiwan: The interaction of cultural and other institutional factors. Electronic Commerce Research and Applications, 5(2), 92-104.
Thong, J. Y. (2001). Resource constraints and information systems implementation in Singaporean small businesses. Omega, 29(2), 143-156.
Turban, E., & Volonino, L. (2010). Business Intelligence and Decision Support Systems. Information Technology for Management: Transforming Organizations in the Digital Economy, 445-484.
Vaccaro, I. G., Jansen, J. J., Van Den Bosch, F. A., & Volberda, H. W. (2012). Management innovation and leadership: The moderating role of organizational size. Journal of Management Studies, 49(1), 28-51.
Venkatesh, V., & Bala, H. (2012). Adoption and impacts of interorganizational business process standards: Role of partnering synergy. Information systems research, 23(4), 1131-1157.
Wade, M., & Hulland, J. (2004). Review: The resource-based view and information systems research: Review, extension, and suggestions for future research. MIS quarterly, 28(1), 107-142.
Weerakkody, V., Dwivedi, Y. K., & Irani, Z. (2009). The diffusion and use of institutional theory: a cross-disciplinary longitudinal literature survey. Journal of Information Technology, 24(4), 354-368.
West, M. A., Borrill, C. S., Dawson, J. F., Brodbeck, F., Shapiro, D. A., & Haward, B. (2003). Leadership clarity and team innovation in health care. The Leadership Quarterly, 14(4), 393-410.
Wixom, B. H., & Watson, H. J. (2001). An empirical investigation of the factors affecting data warehousing success. MIS quarterly, 17-41.
Yeh, C.-H., Lee, G.-G., & Pai, J.-C. (2012). How information system capability affects e-business information technology strategy implementation: An empirical study in Taiwan. Business Process Management Journal, 18(2), 197-218.
Zhang, C., & Dhaliwal, J. (2009). An investigation of resource-based and institutional theoretic factors in technology adoption for operations and supply chain management. International Journal of Production Economics, 120(1), 252-269.
Zheng, D., Chen, J., Huang, L., & Zhang, C. (2013). E-government adoption in public administration organizations: integrating institutional theory perspective and resource-based view. European Journal of Information Systems, 22(2), 221-234.
Zhu, K., Kraemer, K., & Xu, S. (2003). Electronic business adoption by European firms: a cross-country assessment of the facilitators and inhibitors. European Journal of Information Systems, 12(4), 251-268.
Zhu, K., & Kraemer, K. L. (2005). Post-adoption variations in usage and value of e-business by organizations: cross-country evidence from the retail industry. Information systems research, 16(1), 61-84.