THE RELATIONSHIP BETWEEN EXTERNAL AND INTERNAL FACTORS OF INFORMATION SYSTEMS SUCCESS TOWARDS EMPLOYEE PERFORMANCE: A CASE OF ROYAL MALAYSIA CUSTOM DEPARTMENT

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Abstract

The purpose of this paper is to review external and internal factors of Information Systems (IS) success towards employee performance. The construct of this paper is based on a comprehensive review of recent literatures on external and internal factors of IS success towards employee performance. Detailed discussions follow is to give implications on policy making, especially to the top management of the Royal Malaysia Custom Department (RMCD). External and internal factors of Information systems success largely contributed to the employee performance in achieving the Key Performance Indicator (KPI) as directed by the top management. The information system implementation in RMCD is very crucial due to its duty to collect the revenue for the country. It is also in line with the approach by all government agencies that tries to improve the public services and efficiency in terms of access to information and transaction services. This paper provides the importance of External and Internal Factors of Information Systems Success towards Employee Performance as well as reviewing latest literatures from the perspectives of sustainability and innovation.

Keywords: external factors, internal factors, information systems success, employee performance

1.0 Introduction

Advanced technology changes very quickly and affects the management of organizations around the world. Most organizations use information system (IS) to support their management of business operations and communication (Laudon & Laudon, 2007). The use of IS has helped the organization in business transactions and this has caused them to change their business methods in order to fulfill the needs of their clients and provide quality services to them (Vathanophas, Krittayaphongphun & Klomsiri, 2008).

IS also introduces an opportunity for improving communication to enhance organization's effectiveness in the process of providing services to clients. Thus, perceived IS benefits have motivated numerous organizations to adopt and invest in this technology (Peansupap & Walker, 2005). In addition, the use of IS and related practices in the commercial sector and the diffusion of internet among the public has resulted in an increased level of comfort and familiarity with the technology in many contexts (e.g. communicating with people, electronic marketing, and academic activities).

It is generally accepted that Information Technology (IT) has become a tool that can be used to produce accurate, reliable and real-time through the development of Information Systems (IS). For an IS to be evaluated successfully, it must meet additional criteria in the competitive world today. For example, at the broad level, IS is expected to be a key component in achieving the organization's mission and narrower, increasing productivity and ease of service delivery (Akinyele & Olorunleke, 2010).

The role of IS is not only to provide information and services to the citizens, but it also allows the public to interact directly and work better with business, regardless of their location in the physical world. It provides a wide variety of information to citizens and businesses through the internet. Therefore, public sector managers and employees increasingly aware of the potential of IS to improve the performance of public sector organizations and provide potential benefits to the community and business partners (Ebrahim & Irani, 2005).

Therefore, IS will be a significant agent in an effort to transform the culture of IT in the public sector. IS will help develop and integrate the principles of good governance such as democracy, coherence, transparency, effectiveness, and accountability if properly applied (Kalsi, Kiran & Vaidya, 2009).

1.1 Problem Statement

RMCD plays a vital role in economic growth and national development. The services are bound to meet the requirements of a wide range of stakeholders, including the government and private sectors. The technology used is considered to be an important issue in order to pursuit an efficient, effective and transparent in collecting revenue for the country. This transformation also as an innovative introduce by the government for providing convenient and rapid service to the public. However, some authors argue that this technology is not yet applied in an optimal way (Fawcett, Magnan & McCarter, 2005; Gengeswari & Abdul Hamid, 2010).

RMCD serves the first line of the national corridor in all matters of commerce from around the world. Thus, the role play by this agency has a significant impact either positively or negatively to the world's merchant communities, especially foreign investors. Hence, each operation must be implemented to comply with legislation and procedures stipulated by the government. If errors occur, particularly in managing world trade businesses it will affect the financial system and governance of the country. It is envisaged that effective, efficient and transparent system will play a significant role in managing a Royal Customs operational in tax collection.

Given the crucial role of RMCD of national revenue, it is surprising that little has been studied to examine the impact of Indirect Tax System on Employee performance. Importantly, there is an absence of empirically grounded theories that offer insight into Indirect Tax System Success. Therefore, this paper tries to highlight the importance of IS success that leads to better employee performance.

1.2 Aims of the Paper

Information system success has been widely discussed in the past two decades. As systems and technologies are being improved and developed, discussions on their effectiveness and evaluation on their success have been continuously debated by researchers, scholars and practitioners throughout the years. Besides the major concern of IS effectiveness, factors influencing IS success are also important (Rezaei, Asadi, Rezvanfar & Hassanshahi, 2009; Hussein et. al., 2007). Therefore, successful implementation of IS in RMCD is crucial in providing long term benefit not only to the organization, but it's also affecting the revenue generated for the government. This paper reviewed the roles played by internal and external factors of information systems success towards employee performance focusing at the Royal Malaysia Custom Department (RMCD).

As pointed out by Angeles, Corritore, Basu, & Nath (2001), in order to benefit in full from the potential of IS, a considerable amount of attention has to be paid to its initial development. A proper development of IS may eliminate or at least minimise some of its disadvantages and improve the effectiveness of the

system by increasing its value (Bidgoli, 1999). In addition, planning for IS is crucial in order to reduce the costs of internal and external operational procedures and processes in government organizations (Hashim, 2010)

In term of budget provision, public sectors have spent substantial money on IS to improve their efficiency and effectiveness (Wopereis, Kirschner, Paas, Stoyanov & Hendriks, 2005; Lucas, 1975; DeLone, 1988; Iivari & Ervasti, 1994; Grover, Jeong & Segars, 1996) and investments have significantly increased. However, the rate of failure remains quite high (Alavi & Joachimsthaler, 1992; Radcliffe, 1998; Ravichandran & Rai, 2000; Rubinstein, 2007).

Nevertheless, problems from one study showed that Malaysia is still lacking into the usage of good software processes. Problems in terms of delivering quality products, late delivery and excessive budget have also been identified. The unawareness of good development practice has been identified as the source of the problem of quality in the software development in Malaysia (Baharom, Deraman, & Hamdan, 2006). Therefore, the study aims to highlight the importance of External and Internal Factors of Information Systems Success towards Employee Performance in the case of RMCD.

2.0 Literature Review

For several years, international organizations, including the Organization for Economic Co-operation and Development (OECD), the World Bank, the World Customs Organization (WCO), the World Trade Organization (WTO) and the European Union, have considered and provided recommendations on the use of IS to enhance trade facilitation and improve the processes of customs administrations.

Now, governments and the business communities are seeking to improve their financial situation as an absolute necessity during the global economic downturn (Holliday & Kwok, 2004). Trade is the key to the strengthening of economic performance, and custom services are one of components that support a country's trade. Therefore, practical and powerful management of information systems is a tool to gather the benefits that have a positive impact on the effectiveness of all customs operations, and thus increase national financial (Lewis, 2003).

As in previous annual budgetary allocations, the Malaysian government's consistently stresses the inclusion of ICT to leverage the Digital Era and generate more income to the country. Furthermore, the vital development of the Internet offers increasing opportunity for the Knowledge Economy as well as the productivity and performance of civil servants (Hashim, 2010)

In the year of 1995, Royal Malaysian Customs Department (RMCD) adopted a decision on a paperless environment that requires all member states to take measures to increase the efficiency of the organization of customs controls and ensure the seamless flow of data in order to make customs clearance more efficient, reduce administrative burdens, help to combat fraud, organized crime and terrorism, serve fiscal interests, protect intellectual property and cultural heritage, increase the safety of goods and the security of international trade.

2.1 External Factors of Information Systems Success

In terms of external factors, public sectors might facing difficulty to develop IS especially the 'in-house system' when they are lacking in terms of external expertise to support in technical aspects. External factors refer to influences from outside organization towards the successful IS implementation. External factors comprise two major aspects, i.e. collaboration from relevant agencies and support from external consultant/expertise.

Collaboration is one of strategic weapons in the modern trade (Whipple & Russell, 2007). Many studies related to supply chain management, found that collaboration is the driving force behind its effective implementation (e.g. Richey & Autry, 2009; Chang, Fu, Li & Lee, 2009; Rahman, 2008; Rodriguez, Escoto, Bru, & Bas, 2008; Passerini & Wu, 2008). Moreover, according to Neef (2001), the strategic approach taken in the coordination of collaborative environment of the project team and the integration of a collaborative environment's characteristics is essential to ensure smooth transactions in the exchange of data and maintenance. It is also believed that cultural or environment of collaboration and cooperation between the business community is able to destroy the limits of the boundary between the trading partners to obtain the same benefits through a win-win situation (Udin, Khan & Zairi, 2006).

In order to benefit from organizational resources, the project team will include both internal and external resources. IS project team does not only involve internal employees of an organization, but it often also involves team members from outside. (Xia & Lee, 2004, 2005). External consultants are usually appointed by the organization due to lack of internal capabilities within their activities. The role of consultants is to actually fill the gap between the knowledge, skills with their customers. Therefore, external consultants must be equipped with a certain level of specialized skills and knowledge in order to help the client's problem (Kakabadse & Louchart, 2006).

2.2 Internal Factors of Information Systems Success

Internal factors of Information System success is referring to the organizational aspects. It comprises five major aspects which are top management support, skill of project team, organizational resources, user involvement and organizational vision. Those factors are very significant for successful implementation of IS as such implementation entails substantial investment particularly at the initial stage.

Top management support meaning to what extent top managers in the organization provide direction, authority, and resources during and after the development of IT systems. Conventional wisdom suggests that when top managers support an IT project publicly, other organizational members usually interpret such moves positively and act accordingly (Ifinedo, 2008). In fact, top management support is relevant for the overall success of the IT at the post-implementation stages as well (Ifinedo, 2006).

One of the contingencies factors affecting the success of IS implementation is skill of the project team. According to Hayen et al., (2007), only high quality and the competent project team can identify the complex needs of the IS project. Mix of skills should help the project IS designed to be more successful in meeting the goals of the project, and have great value when the technical obstacles to be overcome. A highly skilled project team should be much better prepared to manage and resolve technical problems.

Another factor is concerned with allocating resources. According to Ein-Dor & Segev (1978), resources include money, people and time that are required to successfully complete the project. The researcher added that budgeting with considerable amount of resources increases the likelihood success of MIS. Adequate resources will be able to develop better organizational commitment and organizational obstacles to overcome which in turn lead to the success of the organization and successful execution of projects (Wixom & Watson, 2001).

In addition, research conducted by Sun, Hui, Tam & Frick (2000) mentioned that user involvement has a direct influence on successful implementation of information technology. User participation increases the likelihood of managing customer expectations and satisfies the needs of users. Precision in selecting and involving users of the system in project teams is an important mission. Adequate consumer involvement will reduce the reluctance of the end user to use a newer technology.

It is clearly that building an Information System project symbolizes a massive investment of resources and effort. So it is necessary to define clearly the vision, goals and priorities of the overall project before any step to be undertaken. Inaccurate definitions of the projects' priority may cause restrictions and lack of resources that lead to project delays and the project schedule.

2.3 Employee Performance

Employee impacts are supposed impact of information on user behavior (DeLone & McLean,1992) and has been used in many of the previous success models (e.g: DeLone & McLean,1992; Farhoomand & Drury, 1996; Molla & Licker, 2001). Millman & Hartwick (1987) studied the effect of IT in relation to an employee's work and discovered that middle managers perceived the office automation is beneficial in improving their work and also makes their job more satisfying.

Obviously, information systems play an important role in most work processes. In a lot of work, employee work behavior, performance is closely related to the use of technology-based systems. However, there was an argument that the use of technology in the process of works threatening the traditional view of performance where performance is conceptualized as a behavior completely under the control of human (Hesketh & Neal, 1999; Campbell, 1990). Practically, it is difficult to separate the contribution of technology towards employee performance. In addition, Hesketh & Neal (1999) introduced a person by technology (P × T) interaction perspective on performance and suggested that the method or manner of an employee using the technology is important components of employee performance.

3.0 Discussion

In an effort to provide assistance in addressing this important issue, the management literature has witnessed a growing and evolving series of studies targeted at assessing information system (IS) project implementation success factors (Finch, 2003; Jiang, Klein & Balloun, 1996). This clearly shows that this study tries to determine the factors that influence the effectiveness of information systems should be continued and enhanced.

The information system development project is high cost and complexity, but often fails to complete in accordance with the requirements of the organization (Collins and Schragle-Law, 2010). In 2004, an international survey conducted by KPMG among 600 organizations found that more than half of organizations suffered at least one failure in projects developed for the past year. In 2003, it is reported that 57% of organizations that have failed at least one project that was developed (Ewusi-Mensah, 2003), while Applegate, Austin & McFarlan (2007), estimates that 50% of IT development projects are experiencing the failure.

Therefore, the failure of IS is still a major concern for organizations. In targeting this failure, the evaluation of IS success emerged as a prerequisite for improving the success of the IS in future initiatives. In today's customer-oriented organizations, consumers' perceptions can be regarded as a key determinant of the success of any IS project as the IS is primarily intended to enhance the user the ability to perform better and produce more (Al-Adaileh, 2009).

It is also evident that IS success studies have been focused almost exclusively on the private sector (Ugwu & Kumaraswamy, 2008; Ellitan, 2002; Hwang-Boon & Yu, 2003; Ifinedo, 2008). Despite the widespread

use and increasing importance of IS in public sectors, prior research regarding IS project development success within public sectors are lacking (Rosacker & Olson, 2008; Elpez & Fink, 2006).

Overall, it has been concluded that little progress has been made in how to achieve IS success within the public sectors (Garson, 1999). Yet, the IS is very important to improve the effectiveness and efficiency in public service delivery, resource management information to make decisions that affect people, and formulation of public policy. The spectacular growth of public investment in the IT field further reflects of the great potential to improve the performance of public organizations (Garson, 1999). Thus, to understand what contributes to IS success is essential and value to public sector agencies (Seneviratne, 1999).

4.0 Conclusion

An information system (IS) is being improved and developed, discussions on their effectiveness and evaluation on their success have been continuously debated by researchers, scholars and practitioners throughout the years. Besides the major concern of IS effectiveness, factors influencing IS effectiveness are also important (Rezaei et al., 2009; Hussein et. al., 2007).

Apart from that, subject on the relationship between IS success and employee level in public sectors is relatively new subjects in the academic world. Most researchers have contributed with the study of IS and performance in the organization or firm level (e.g: Mjema et al., 2005; Gonza´lez-Alvarez & Nieto-Antolı´n, 2005; Dixon, 2005; Kim, 2006; Foong, & Teruki, 2009; Bayo-Moriones et al., 2010).

In addition, reviews the elements of the IS success and the impact on employee performance has marked a new step towards to enhance better understanding of what has been reported in the literature and also open new path in this field. This present study moves the focus from organizational and technical perspectives and therefore from development and success factors to more important issues related to the user, who creates value and outcomes from IS. This study also could help public sectors to be prepared and select the most suitable steps in order to enhance and achieve employee performance within IS context in organization.

5.0 References

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