Royal Malaysia Custom Department (RMCD): A Case of Information Systems Success towards Employee Performance

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Abstract- *The purpose of this paper is to propose a new framework of 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 provides a framework on Information System success towards employee performance in the Royal Malaysia Custom Department (RMCD). The framework is hoped to get a better overview on how the information system helps to increase employee performance by integrating the elements of internal and external factors of IS system. This paper provides details for the framework in view of elements between External and Internal Factors of Information Systems Success towards Employee Performance. The importance of this framework could be applied in various government departments that apply information systems which could better improve their employee performance. This will later on further improve the performance of the respective departments in achieving their key performance indicators as well as increasing their productivity in the long run.*

Keywords- *External Factors; Internal Factors; Information Systems Success; Employee Performance.*

1. INTRODUCTION

Information system has been widely become the common language for almost all walks of life. The difference is merely depends on the context of the application and how deep or complicated is the implementation. 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 such as communicating with people, electronic marketing, and academic activities.

Obviously, public sectors in the world today are facing the pressure to improve service levels while reducing operating costs [23]. Regardless, of federal, state, district, municipal and local governments in almost all the countries in the world are feeling some sort of citizens' requirement to delivery effectiveness and efficiencies services [4] due to the increased of their expectations that government will provide services similar to those in the commercial sector [7].

Therefore, public sectors should develop and implement practices and procedures that will make them more business orientation, the essence of which will be a stakeholder-driven planning, implementation, strategic direction and control [21].

According to Handler, Koebel, Reiss & Schratzenstaller (2004), public sectors play a vital role in influencing the overall economic performance through two channels:

Firstly, public sectors produce goods and services and this directly affects the overall output and productivity based on the size and efficiency. Secondly, public sectors also affect the way private production occurs, thus, public policy will have a positive impact on the private sector and in turn contributes to economic growth and productivity. As a result, they are in pursuit of achieving improved economy, efficiency and effectiveness in the provision of services.

Moreover, the demands and pressure from its stakeholders has led the management of public sectors have faced several challenges associated with accountability. They are expected to be responsive and accountable not only for their departments, but also to customers in the market, and must overcome their own interests even in a state of conflict [37].

Therefore, public sectors should be transformed into an efficient organization to strengthen accountability, so that they are transparent held to account any resources they use and the results they achieved (Radnor & Lovell 2003). For this purpose, public sectors started to introduce change and implement modern management tools in their organizations to deal with the needs of their customers and increase demand for accountability to their stakeholders [17].

2. ROYAL MALAYSIAN CUSTOMS DEPARTMENT (RMCD)

Royal Malaysian Customs Department (RMCD) is the Malaysian government agency that is responsible for administrating the nation's indirect tax policy. In other words, RMCD administers seven main and thirty-nine subsidiary laws. Besides that, RMCD implement eighteen laws for other government agencies.

RMCD core business is to collect tax and in line with that, RMCD's vision is to be a respected, recognized and a world class Customs Administration. Therefore, RMCD's mission is to collect revenue efficiently and help the expansion of trade and industry through continuous facilitation whilst enhancing legal compliance in order to safeguard the nation's economic, social and security interest (RMCD, 2012)[36].

In relation to indirect taxes, on the other hand, customs administration has a crucial role. Tax charge is based on the destination, this means that for all the commodities produced domestically or imported will be taxed at the same level, while the commodities intended for export are not subject to any tax. Therefore, the role of customs authorities is to ensure that commodities enter the country is subject to tax are collected accurately and correctly while the commodity to be exported abroad actually exported and not diverted to the domestic market.

At present, Royal Malaysian Customs Department (RMCD) is the only government agencies in Malaysia which is responsible to collect indirect tax for the national revenue. It involves in the reformation process and look outward for a new solution to enhance their delivery system. The agency employs more than 13,000 staffs which incurred multi-level of scheme. The main task of the agency is to ensure that all taxes collected should be paid accurately and correctly and at the same time also act to deliver facilitation for the domestic and the foreign trade industry.

2.1 Conceptual Framework

According to Garrity & Sanders (1998) [11], the success of information systems (IS) in various ways through measuring user satisfaction, information quality, service quality and perceived usefulness of specific systems. This study treat IS success as a multi-faceted construct and select appropriate measures of success based on research objectives and the phenomenon being studied. It provides a possible relationship between the dimensions of success when building a model study. This model is the framework for metrics that can be used to manage an IS project development to help ensure its success.

However, the most prominent studies in the IS success conducted by De Lone & Mc Lean (1992)[5]. Since then, their study is considered very significant in contributing to the universal model, many studies related to IS performance employed as the basis of the research model. Efforts have also been conducted to affirm their proposed model (Seddon & Kiew 1996 & Rai et al. 2002)[39]. Their model was updated in 2003 with important consequences for further studies.

The DeLone & McLean (1992, 2003)[5] model may be the most cited model in the IS community. It has been proven when their 1992 model has successfully tested in many empirical studies (Rai et al., 2002)[34]. Definition of the IS and the methods for measuring the success is still a problem for many factors (Seddon, Staples, Patnayakuni & Bowetell, 1999)[40].

The framework below showed the position of the external and internal factors and the four IS success dimensions investigated. This model was developed by focusing on IS success impact on employee performance as the final dependent variable of interest instead of organizational performance. Debate and dispute on measurement of the organizational performance by individuals pose difficulties by previous studies (Gelderman 1998; Goodhue & Thompson 1995)[12]. However, this study opts not to consider the organizational impact.
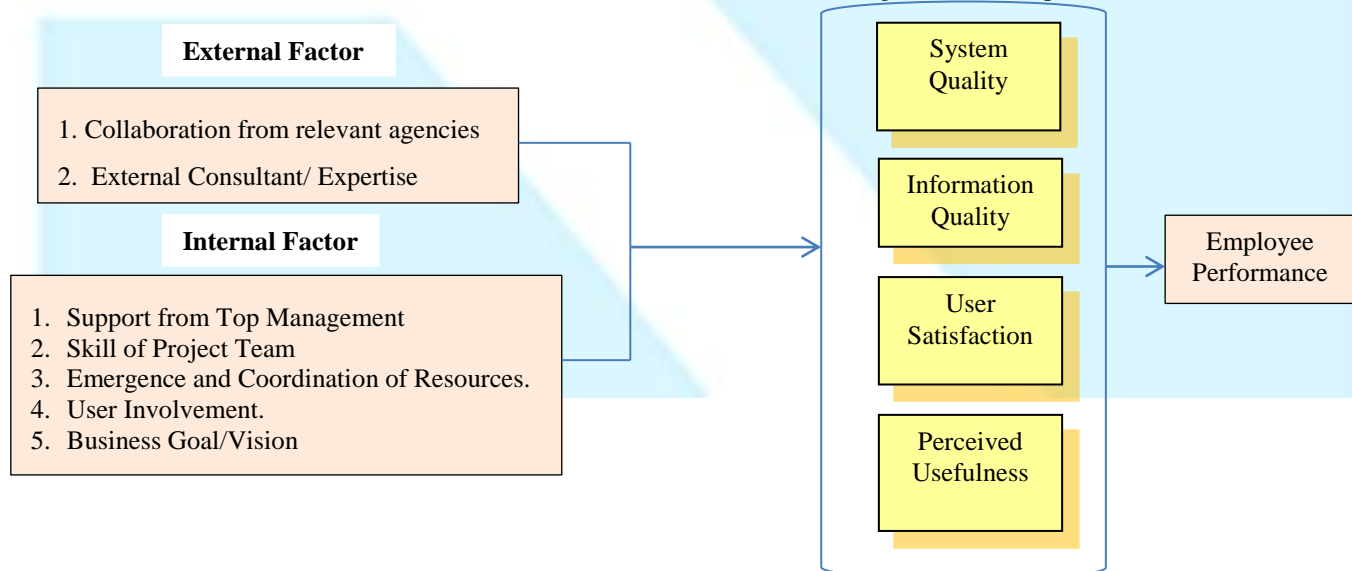

Figure: Conceptual Framework *Source: DeLone and Mclean (2003)*[5]

2.2 External Factor of Information Systems Success

External factor in Information System success refers to influence from outside organization towards the successful IS implementation. The External factor consists of two major aspects, including collaboration from relevant agencies and support from external consultant/expertise.

Whipple & Russell, (2007)[42] mentioned that by doing collaboration, it is one of the strategic weapons in modern. Studies related to supply chain management have found that the main driving force behind effective implementation is through collaboration (Richey & Autry, 2009[35]; Chang, Fu, Li & Lee, 2009[3]; Rahman, 2008[33]; Rodriguez, Escoto, Bru, & Bas, 2008[38]; Passerini & Wu, 2008[30]).

In addition, Neef (2001) highlighted that both strategic approach in the coordination of collaborative environment of the project team and the integration of a collaborative environment's characteristics are essential in making sure for the smooth transactions in exchanging data and maintenance. Information System project team involves team members from outside employees as well as attaining enough supports from internal employees of an organization (Xia & Lee, 2004, 2005)[45].

Assistance from external consultants is used for the purpose to avoid lacking from internal capabilities within their activities. Their main contribution is to reduce the gap between the knowledge and skills with their customers. Hence, external consultants are supposed to have certain level of specialized skills and knowledge in order to overcome the client's problem (Kakabadse & Louchart, 2006)[22].

2.3 Internal Factors of Information Systems Success

There are five major aspects namely top management support, skill of project team, organizational resources, user involvement and organizational vision. Those factors played important role in implementing successful of IS that entails substantial investment particularly at the initial stage.

Top management plays it role by providing clear direction, solid authority, and sufficient resources during and after the development of IT systems. Ifinedo, (2008) suggested that when top managers support an IT project publicly, other organizational members usually interpret such moves positively and act accordingly. In fact, top management support is relevant for the overall success of the IT at the post-implementation stages as well (Ifinedo, 2006)[19].

Skill of the project team has been determined as one of the main attributes for successful IS system implementation. Hayen et al., (2007)[15] reported that high quality and competent project team has the ability to identify the complex needs of the IS project. A good combination of skills would be able to help the project IS being designed in a more successful approach to meet the goals of the project. This will later on put better value when the technical obstacles managed to be overcome. Highly skilled project teams are well prepared to manage and resolve technical problems.

Allocating resources has much associated with the good management of resources. According to Ein-Dor & Segev (1978)[8], resources include money, people and time that are required to successfully complete the project. Adequate resources are believed to be able to develop better organizational commitment and organizational obstacles to overcome. This will help in leading to the success of the organization with successful execution of projects (Wixom & Watson, 2001)[43].

Sun, Hui, Tam & Frick (2000)[41] agreed that user involvement has a direct influence on successful implementation of information technology. The increment of user participation will improve customer expectations and satisfies the needs of users. The accuracy of process in selecting and involving users of the system in project teams is an important mission. Sufficient number of consumer involvement will reduce the reluctance of the end user to use a newer technology.

Those five major aspects of internal factors of Information Systems has contributed much in making sure that successful implementation of IS. It is undeniable that internal factors significantly contribute to the IS success. Sufficient support from both internal and external factors of IS success could overwhelm the management in producing improvement of employee performance.

2.3 Employee Performance

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, 1999)[16].

Employee impacts are supposed impact of information on user behavior (DeLone & McLean,1992)[5] and has been used in many of the previous success models (e.g: DeLone & McLean,1992 [5]; Farhoomand & Drury, 1996 [9]; Molla & Licker, 2001 [27]). Millman & Hartwick (1987) [26] 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.

Practically, it is difficult to separate the contribution of technology towards employee performance. In addition, Hesketh & Neal (1999) [16] 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. DISCUSSION

Many empirical studies on the IS success came in the famous DeLone & McLean IS Success Model (DeLone &

McLean, 1992) [5]. This model has contributed to a comprehensive taxonomy of IS success based on more than 180 of empirical studies related to IS success and more than 100 studies which related to the IS success measurement. It has been stated that the Quality Systems, Information Quality, Use, User Satisfaction, Employee and Organizational Impact is the most distinct elements of the equation for IS success. In later study, the authors were able to confirm the original taxonomy, and have concluded that IS success is a "multidimensional and interdependent construct" (DeLone & McLean, 2003) [5].

Seddon (1997) suggests a respecified an extended version of DeLone & McLean IS success model with the intention to clarify the confusion caused by the integration process and the casual explanation to measure IS success. According to Seddon (1997), DeLone & McLean (1992) [5] have tried to carry out too much in their model, then, the result is a confusing and misspecified. Seddon used the literature on IS success to assess the theoretical on IS success measures and has been proposed extended IS success model.

The model focuses on measuring the quality of information and systems as well as the net benefit is obtained when using the system. The results concluded that a significant variables for the success of IS are: System Quality, Information Quality, Perceived Usefulness, User Satisfaction, Net Benefits for Individuals, Net Benefit to the organization and Net Benefits to society. DeLone & McLean's (1992) [5] model was chosen to represent the IS success construct because of its strength in the validity and reliability through continuous validation is made in many studies.

According to Peter, DeLone & McLean (2008), the practical application of the D&M model is naturally dependent on the organizational context. The application of D&M model in IS-related research must have a solid understanding of information systems and organizations. This is for the purpose of identifying the type of dimensions of the IS success to be measured. The selection of success dimensions and specific metrics depend on the nature and purpose of the system(s) being evaluated.

According to Peter, DeLone & McLean (2008), perceived usefulness is the most common measure at the individual level. Thus, this present study adopts Seddon's perceived usefulness as an IS success measure replacing system use as in the De Lone & Mc Lean's model considering that for voluntary systems basis, dimension of 'use' more appropriate while for the mandatory system 'perceived usefulness' is an appropriate measure of IS success (Seddon & Kiew, 1996) [39].

4. CONCLUSION

Lam (2005) adds that Critical Success Factors studies continued to receive valuable attention for making sense out of problem because there are many potential factors that may affect the results, and researchers have been trying to get a set of practical recommendations based on

the most influential factor. It is hope that the framework can give extra benefit to the organization as well as getting new approach in improving productivity of the firm in the long run.

The framework proposed in this study seems to fit Royal Malaysia Custom Department (RMCD) due to their nature of work which always deal will routine that contributes a lot for the government income generation. Good systems of information system combined with sufficient and efficient support both internal and external factors of IS success are believed to be good combination ingredient for successful IS implementation. It is hope that the proposed framework could really provide significant impact to the RMCD.

It is hope that by implementing the framework of IS success would be able for the employees to achieve their desired key Performance Indicators. While for the management, IS success can become a benchmark to measure their employee performance. This creates a win-win situation for both employee and the organization.

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