



Technology acceptance in public organization: failure to launch

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ABSTRACT

This paper aims to look at the issue of motivation, attitudes and behaviour as well as organization culture role in technology acceptance within the public sector organizations. Studies of technology acceptance and resistance have hinted at the importance of organization culture and the cognitive and physiological states of employees to the performance of organizations. It is argued that the public organizations today face the dilemma of managing technology acceptance. Resistance to technology was an essential factor to be considered in any changes process, since a proper management of resistance is the key for change success or failure. This provide a review and discussion on the relationship between the obstacles exist towards technology acceptance that has been neglected by the management The proposed idea would practically improve the implementation of technology acceptance in public sector organizations and reveal the obstacles exist in implementing organizational change through technology acceptance.

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Introduction

The arrival of new technology was brought forth a set of opportunities and challenges for Malaysian public sector (Balassaniah & Wignaraja, 2006). Much of the world's information is becoming digitalized. This challenging includes new technologies to basic communication processes such as human perception, cognition and expression (Jarret, 2004). In Malaysia, government computerization started in the mid 1960s (Balassaniah & Wignaraja, 2006). The objectives of using information technology (IT) in government include improving efficiency in administration, enhancing managerial effectiveness, improving delivery of government services, human resource development, creating a greater awareness of IT and promoting both the availability and better access to government information (Brown & Eisenhardt, 1997).

Introducing technology change into an organization was focusing on change management activities (Argyris, 1998). Change is never easy and managing it in a large corporate environment is even more challenging. Changing organization is as messy as it is exhilarating, as frustrating as it is satisfying, as muddling-through and creative a process as it is a rational one (Palmer et al., 2009). Golembiewski (1969) suggested that change will happen at a more rapid pace in the business environment in the future. While Piderit (2000) argued that the rate of environmental movement will increase and pressures on organizations to transform them would grow over the next few decades. Furthermore, Ram (1989) concluded that the only rational solution is to learn more about what creates successful change. For this reason, the general aim of organizational change is an adaption to the environment or an improvement in performance (Spacey et al., 2003).

The Predicament

One of the commonly causes for the lack of success of organizational change is resistance to change. Ram (1989) and Siti Akmar (2008) that argued oone of the major causes for organization failure of innovations is employees' resistance to

innovation. Resistance was a natural behaviour of human beings. This statement supported by Balassaniah and Wignaraja (2006) and Val and Fuentes (2003) that evidenced resistance to change is a natural response of a human being or an institution to any changes that disrupt the existing equilibrium of living conditions or organizational activities. People had a natural resistance to change, but not everyone reacts in a similar fashion or similar reasons. The amount of resistance also varies from person to person. The consistency of resistance led the implementation of technology change was very difficult to achieve (Waddell & Sohal, 2001). The key to understand the resistance was to realize that it was a reaction to an emotional process. Resistance does not always happen. Although there were several factors that could affect an employee's resistance towards technology change, however this study focuses on the relationship of employee's attitude and behaviour, employee's motivation and organizational culture towards technology change.

Previous research concluded that change can only be effectively implemented through proper planning and communication (Jarret, 2004; Siti Akmar, 2008). Therefore, same focus is still needed in creating a vision the intended change and obtaining commitment from all employees. Management need to ensure that the vision of the organization drive the implementation of the change to overcome any resistance to the transformation (Piderit, 2000). When focusing on the implementation of the change process, more effort could have been directed and taking steps to ensure that all employees were feel motivated to change. Even though many researchers had been conducted study on employees' resistance towards technology change, however the empirical findings were mixed. Val and Fuentes (2003) suggested that this is because employee resistance towards technology change had been linked to many organizational problems such as failure to implement new technology and to change organizational culture. This problem cause the e-government performance tends to be lower (Siti

Akmar, 2008). Even though it is difficult to compare the practices of e-government between countries, however, their sheer heterogeneity in terms of economic development, regime type, cultural patterns, telecommunications, infrastructure, and internet usage could be the factors of the level of technology savvy among public sector employees (Piderit, 2000). However, the weakness in service-delivery stage of e-government has led to low performance of public sector employees.

Literature Review

The role of motivation in determining technology resistance

Davis et al. (2007) noted that an individual's motivation in using new technology affects their reaction to the implementation of new technology. A strong motivation in using new technology can overcome many difficulties, whereas a strong motivation in using the technology can cause an individual to erect additional barriers as protection (Bovey & Hede, 2001). According to Cheng and Petrovic-Lazarevic (2004) motivation to change is regarded as one of the practical strategies to be implemented in group settings. Collective and individual personalities have a tremendous impact in the success of organizational change (Long & Spurlock, 2008). Fear and anxiety are strong forces behind resistance, and in this case, resistance to technology (Fairbank & Williams, 2001). The starting point for skill assessment required to utilize technologies varies greatly among civil service employees. The motivation to overcome that fear and learn is linked to the personality type. Individuals in non-technology oriented departments could find technical knowledge intimidating, if not completely useless. In these cases, interventions are necessary to help individuals overcome their fear and sense of personal inadequacies (Benson & Dundis, 2003). According to Ampofo-Boateng et al. (1997) each individual brought their own characteristics as well as their attitude which influence their behaviour towards technology change. Motivation brought the people attitude and behaviour when employees have motivation and high confident level to use technology, people will have belief that they can learn and understand technology. Then, people will behave their behaviour as well as their motivation and attitudes. For this reason, attitudes and behaviour are linked to openness to technology changes (Reshef, 1993). Thus, we propose that:

H1: *Employees motivation plays an important role in determining the success implementation of technology acceptance.*

The role of attitudes in determining behavioural intention on technology resistance

In contrast, motivation needs to be transformed into attitudes and then attitudes will be demonstrated into behaviour to explain the technology resistance among employees (Adams et al., 1992). Ajzen and Fishbein (1980) discovered that changing organization is as messy as it is exhilarating, as frustrating as it is satisfying, as muddling-through and creative a process as it is a rational one. When change introduced to others, the method and speed of the introduction affect its success. Individual and organizations express behaviours indicating acceptance or rejection of the change. Attitudes towards using technology is defined as the user's evaluation of the desirability of his or her using the system; a function of the subjective probability that the usage behaviour will lead to a particular outcome and a rating of the desirability of the outcome (Eagly & Chaiken, 1998). Each individual brought their own characteristics as well as their attitude which influence their

behaviour towards technology change (Bentler & Speckart, 1979). Employees represent their behaviour from their own feeling and belief or known as attitude (Schneider, 1994). Thus we argued that if employees have feeling or belief that they can learn and use technology, the acceptance of the new technology is much easier and they would willingly trying to overcome the resistance to change. Albert and Whetten (1985) supported that a positive attitude towards computers is an indication of lower resistance towards technological change and negative attitude represent the higher resistance toward technology change. Conner and Sparks (2002) and DeSteno et al. (2004) concluded that positive attitudes that demonstrated into behaviour are fundamental in implementing new technologies. Thus, we propose that:

H2: *The role of attitudes in determining behavioural intention on technology resistance could facilitate change acceptance among employees*

The role of organization culture in technology acceptance adaption

According to Crano and Hannula-Bral (1994) motivation can be subsided; attitudes and behavior can be altered if organization culture does not play their own role in technology acceptance to eliminate resistance to organizational change may result from one or a combination of factors such as substantive change in job, reduction in economic security, psychological threats, disruption of social arrangements, and lowering of status or status quo. Gargiulo and Benassi (2000) further explained that employees resisted to change caused by status quo that need to be protected or keep at their comfort zone. Some researchers believed that the introduction of technologies will trigger behaviour changes and attitudes in organizations (DeLong & Fahey, 2000). Similarly, Piderit (2000) suggested that resistance may often involve a sense of ambivalence whereby employees' feelings, behaviours, and thoughts about the change may not necessarily coincide. Accordingly, Bovey and Hede (2001) proposed that resistance can be viewed as a multidimensional attitude towards change, comprising affective, cognitive, and behavioural components. Attitude is very difficult to change once they had been learned and became norms and resistance to technology change will remain useless. Therefore, management needs to embed the culture of readiness to technology change into the organization culture to inculcate norms into practice. Cohen et al. (2005) concluded that organization culture would push technology away and would create more resistance if the obstacle to effective organizational changes are not accounted for. Thus, we proposed that:

H3: *Organization culture role in injecting employees' confident to accept technology*

Conclusions

In this paper, it is argued that technology acceptance is crucial in public sector as it is transparently crucial in private sector to liquidate the speed and efficient. However, employees' motivation may create a glass wall that either impede or eliminate the potential for successful technology acceptance. Thus, the quality of relationships between motivation, attitudes and behaviour as well as organization culture has major implications for technology acceptance. This is the case irrespective of which factors is under consideration.

Engaging in technology acceptance is a risky venture yet profitable in long run and some degree of confidence must exist between the parties involved to do the right thing.

If relationships are perceived to be poor, then significant resistance technology will occur; even the organization realized that she can benefit from digitalized information system. It is important to note that although the construct have been treated independently, this is no suggestion that there cannot be interaction effects. Since, all of these factors are operating simultaneously within organizations, it is likely that these factors will be interacting and will have an impact on technology acceptance.

This paper is significant because it addresses an issue of practically important to public sector. That is, how to better manage the challenges posed by motivation, attitudes and behaviour to technology acceptance, particularly without directives from the surrounding culture upheld by organization. The reinforcement of the idea of technology acceptance is generally a complex issue, is further complicated when involving cognitive and psychological states of employees. Technology acceptance not for itself but for the competencies is provides; yet what work in one public organization is not necessarily appropriate for another.

References

- Adams, D. A., Nelson, R. R., & Todd, P. A. (1992). Perceived usefulness, ease of use and usage of information technology: A replication. *MIS Quarterly* 16(2), 227-247.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. New Jersey: Prentice-Hall.
- Albert, S., & Whetten, D. (1985). Organizational identity. *Research in Organizational Behavior* 7, 263-295.
- Ampofo-Boateng, K., Merican, W. R., Jamil, A., & Wiegand, B. (1997). Employees' adaption to technological changes in a multinational corporation in Malaysia. *Innovation in Technology Management - The Key to Global Leadership* (pp. 987-989). Portland: Portland International Conference on Management and Technology.
- Argyris, C. (1998). Empowerment : The emperor's new clothes. *Havard Business Review May / Jun* , 98-105.
- Balassaniah, D., & Wignaraja, K. (2006). Institutional reform and change management: Managing change in public sector organizations. *UNDP Conference Paper Series* (pp. 1-17). Kuala Lumpur: United Nations Development Programme .
- Benson, S. G., & Dundis, S. P. (2003). Understanding and motivating health care employees: Integrating Maslow's hierarchy of needs, training and technology. *Journal of Nursing Management* 11, 315-320.
- Bentler, P. M., & Speckart, G. (1979). Models of attitude-behaviour relations. *Psychological Review* 86, 452-464.
- Bovey, W. H., & Hede, A. (2001). Resistance to organizational change: The role of defense mechanism. *Journal of Managerial Psychology* 16(7), 553-548.
- Brown, S. L., & Eisenhardt, K. M. (1997). The art of continuous change: Linking complexity theory and time paced evolution in rentlessly shifting organizations. *Administrative Science Quarterly* 42, 1-34.
- Cheng, J. S., & Petrovic-Lazarevic, S. (2004). The role of effective leadership in doing more with less in public universities. *Global Business and Technology Association Sixth Annual Conference* (pp. 36-52). Cape Town: Global Business and Technology Association Sixth Annual Conference.
- Cohen, A., Feters, M., & Fleischmann, F. (2005). Major change at Bobson Collage: Curricular and administrative planned and otherwise. *Advances in Developing Human Resources* 7(3), 157-170.
- Conner, M., & Sparks, P. (2002). Ambivalence and attitudes. *European Review of Social Psychology* 12, 37-70.
- Crano, W. D., & Hannula-Bral, K. A. (1994). Context/categorization model of social influence: Minority and majority influence in the formation of novel response norm. *Journal of Exp. and Social Psychology* 30, 247-276.
- DeLong, D. W., & Fahey, L. (2000). Diagnosing cultural barriers to knowledge management. *Academy of Management Executive* 14, 113-128.
- DeSteno, D., Petty, R. E., Rucker, D. D., & Bravemen, J. (2004). Discrete emotions and persuasion: The role of emotion induced expectancies. *Journal of Personal and Social Psychology* 86, 43-56.
- Eagly, A. H., & Chaiken, S. (1998). Attitude structure and function. In D. T. Gilbert, S. T. Fiske, & G. Lindzey, *The handbook of social psychology ed.* (pp. 269-322). Boston: McGraw-Hill.
- Fairbank, J. F., & Williams, S. D. (2001). MOTivating creativity and enhancing innovation through employee suggestion system technology. *Creativity and Innovation Management* 10(2), 68-74.
- Gargiulo, M., & Benassi, M. (2000). Trapped in won net: Network cohesion, structural holes and the adaption of social capital. *Organization Science* 11, 183-201.
- Golembiewski, R. T. (1969). Organization development in public agencies: Perspectives on theory and practice. *Public Administration Review* 29, 367-368.
- Jarret, M. (2004). Tuning into the emotional drama of change: Extending the consultant's bandwidth. *Journal of Change Management* 4(3), 247-258.
- l, Long, S., & Spurlock, D. G. (2008). Motivation and stakeholder acceptance in technology driven change managemen: Implication for the engineering manager. *Engineering Management Journal* 20(2), 30-36.
- Palmer, I., Dunford, R., & Akin, G. (2009). *Managing organizational change: A multiple perspectives approach 2nd ed.* New York: McGraw Hill.
- Piderit, S. K. (2000). Rethinking resistance and recongnizing ambivalence: A multidimensional view of attitudes toward an organizational change. *Academy of Management Review* 25(4), 783-794.
- Ram, S. (1989). Successful innovation using strategies to reduce consumer resistance: An empirical test. *Journal of Product Innovation Management* 6, 208-212.
- Reshef, Y. (1993). Employees, unions and technological changes: A research agenda. *Journal of Labour Research* 14(2), 111-129.
- Schneider, B. (1994). Thepeople make the place . *Personnel Psychology* 40 , 437-454.
- Siti Akmar, A. S. (2008). Managing change with integrity in Malaysian institute of higher education. *Asian Social Science* 4(5), 1-5.
- Spacey, R., Goulding, A., & Murray, I. (2003). ICT and change in UK public libraries: Does training matter? *Library Management* 24, 61-69.
- Val, M. P., & Fuentes, C. M. (2003). Resistance to change: A literature review and empirical study. *Management Decision* 41(2), 148-155.
- Waddell, D., & Sohal, A. S. (2001). Resistance: A constructive tool for change management. *Management Decision* 36(8), 137-145.