Response of Small Enterprises to the Pressures of ERP Adoption

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ABSTRACT

Decision to adopt ERP by small enterprises is influenced by external forces due to their dependence on the supply chain. However, certain factors mediate the external forces and alter their influences. This article intends to highlight that the response of small enterprises to the institutional isomorphic pressures in adoption decision of ERP depends on the perception of cost-benefit and the complexity of the organization. A conceptual model was developed and empirically tested by a survey among SMEs of the knitwear garment cluster that has a well developed institutional structure. The mediation effect is tested in SEM software and its significance is verified by bootstrapping. The results show that perceived benefit, challenges and organizational complexity confound the external forces. The study reveals how the small enterprises respond to the external pressures so that stakeholders involved in promotion of ERP can plan a right strategy for encouraging ERP adoption among SMEs.

Keywords: Adoption, Benefits, Challenges, Enterprise Resource Planning, Institutional Pressures, Mediation Effect, Organizational Complexity, Response Strategy

INTRODUCTION

Industry clusters by their collective innovation, improvement and change are seen to be the major factor in creating a competitive advantage to itself and the firms in the cluster. Clusters are recognized for their productivity and innovation as compared to their counterparts outside the cluster. However, institutional structure and the isomorphism of a cluster exert pressure upon organizations for greater levels of organizational integration and the need for information system.

Thus, organizations are mandated by external forces to adopt ERP. However, an organization does not just succumb to the forces. Certain factors mediate the external forces and alter their influences. Yoo, Lyytinen, and Berente (2007) provide an idea of response strategies of an organization to the institutional forces and the pressure to adopt a new information system. They suggest that the responses differ in a strong and weak pressure, and the congruence of the institutional logics. This article proposes that the institutional isomorphic pressures have a direct influence on the ERP adoption, and this can be modified by the perception of cost-benefit.
in adoption decision and the complexity of the organization.

The following section provides the theoretical background and leads to the development of a conceptual model for the study. The next section explains the methodology. Then the results of the data analysis are presented. The results are interpreted and its implications and recommendations to various stakeholders are provided. The paper concludes by highlighting the contribution, limitations and future direction of the study.

**LITERATURE REVIEW**

Most of the diffusion research in the information system (IS) domain confirms to one of the two distinctive styles: adopter studies and macro diffusion studies. The first one looks at the differences in adopter innovativeness, whereas the second deal with characterizing the rate and pattern of technology adoption among potential adopters (Attewell, 1992). Small and medium-sized enterprises (SMEs) are important for the economic growth, employment and social development of any country. The ERP adoption study for SME is of the latter type in which the pattern of the ERP adoption is specifically studied among the SMEs. A study on ERP adoption in SMEs requires attention because their issues are different from large organizations and the motives that drive ERP adoption are unique and needs to be understood independently for a better penetration of ERP system.

There is only a little research published on IS adoption by SMEs and researches that focus on the early stages of the adoption decision which are necessary to help in evaluating and selecting an ERP system (Bernroider & Tang, 2003; Cereola, 2008). Nzaou, Raymond, and Fabi (2008) developed a positivist case study based on the Boudreau and Robey’s (1999) multidimensional framework for adoption of ERP system. The framework addresses ERP adoption as a 3D process (form of the change, motor of change, and adoption theories). The theoretical dimension of the model includes the diffusion of innovation, neo-institutional and complexity theories (Anderson, 1999; DiMaggio & Powell, 1983; Rogers, 1962).

Shiau, Hsu, and Wang (2009) developed a measure to assess the ERP adoption of SME. In their study, they focus on the investment decisions, benefit analysis, cost analysis and technology analysis related to the adoption decision of ERP systems. Some of the other models used in organizational adoption of ERP are benefits, barrier and risk framework (Kamhawi, 2008); Strategy, Technology, Organizational, People and Environment (STOPE) (Oliver, Whymark, & Romm, 2005); IT/IS Justification, (Gunasekaran, Ngai, & McGaughey, 2006); Discrete Choice Analysis (DCA) (Keating, Colman, Michael, & Baker, 2009); Innovation adoption (Rajendran, 2010).

Yet these models do not address the context of the decision making characteristics of the SME, whose decisions are bound to be influenced by an interaction of both external and internal factors.

The decision to fulfill the needs is affected by the benefits and the risks associated with the acquisition of a product, which is often evaluated from the knowledge of previous learning or cognitive process. Developing on this fundamental motivation process of Durgee, O’Connor, and Veryzer (1996) it is proposed that the driving force in ERP adoption can be identified as the institutional isomorphic pressures. The decision to adopt ERP is affected by the evaluation of the benefits and challenges, and organizational complexity that creates a need for the product.

Institutional theory has emerged as a powerful explanation to account for the influence of the external institutions on organizational decision-making and outcome. DiMaggio and Powell (1983) argue that managerial decisions are strongly influenced by the three institutional mechanisms—coercive, mimetic, and normative isomorphism—that create and diffuse a common set of values, norms, and rules to produce similar practices and structures across organizations that share a common organizational field. Coercive pressures are based on
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