Use of Enterprise Resource Systems in Turkey's Businesses

Didem PAŞAOĞLU BAŞ

Anadolu University
Faculty of Business Management
Eskişehir, Turkey
dpsaoglu@anadolu.edu.tr

Extensive Summary

The world saw big changes in the 1990s. Globalization trends began. Businesses began to operate in a world of high level competition. Businesses made fundamental changes and huge investments in line with their customer's requests after competition acquired an international dimension. Determining customer's needs and meeting them began to require knowledge.

Businesses' need for knowledge has continued to grow. Knowledge gives advantages in competition by enhancing businesses' planning and decision-making. Businesses must embrace this change and renew themselves constantly to compete with their rivals in the fast-paced conditions of globalized competition. Otherwise, they will have difficulty competing with their rivals and disappear.

The ever-increasing speed of information and consequentially shorter decision-making processes have become a condition of life in an information society. This is why the speed of information flow is important. Similarly, quick flows of information and the instantaneous transmission of information those who need it spread new ideas and spur inventions faster. Centuries ago Bacon said that knowledge is power, but knowledge only becomes power when it serves people who need it to do their jobs and make decisions (Tonta, 1999).

Information technologies, including Enterprise Resource Planning systems, have made great developments in recent years. The aim of the study is to determine the extent of the implementation of Enterprise Resource Planning systems in Turkey and the causes of Enterprise Resource Planning use. It uses the technology acceptance model within the scope of the emerging developments in information technology.

Information about businesses that do not use Enterprise Resource Planning systems is also included in this study in an attempt to contribute to the literature about this issue. Interviews carried out before the study found that the number of businesses using Enterprise Resource Planning systems are far less than those that do not. It tried to

determine how businesses that use Enterprise Resource Planning systems implement them in Turkey, whether the businesses that do not use Enterprise Resource Planning systems know about them or not and their intentions to use them. Businesses that are likely to use Enterprise Resource Planning systems in the coming years are included in the study. The technology acceptance model was used to create a model for determining businesses that do not use Enterprise Resource Planning systems. The model was evaluated for businesses that do not use Enterprise Resource Planning systems by creating another survey. Then, a model was formed for Turkish businesses that do not use Enterprise Resource Planning systems, and intentions to use them in the future were determined by a survey.

The technology acceptance model is a model for researching technology acceptance and uses it most. It was developed by Davis in 1989 based on Fishbein and Ajyen's (1975) reasoned action model. It makes easier to create information technology in the business sector and is used to define referring factors to technology use. Information systems use in technology acceptance model was explained on the basis of personal attitudes and perceptions (Davis, 1989). According to Davis (1989), two variables, perceived ease of use and perceived benefit, determine the use and acceptance of information technologies.

This study also included the variable of organizational culture in the model as an attempt to contribute to the literature on this issue. There are two important causes of implementing of organizational culture in model. One, studies have shown that organizational culture creates commitment to organizations and that association among employees positively affects job performance (Erdem and Isbasi, 2001). Two, organizational culture is a social variable that can affect practices and decisions regarding use of Enterprise Resource Planning systems. Thus, this study indicated that Enterprise Resource Planning systems are not only a technical system, but also a social system requiring group work, which indicates a close relationship between organizational culture and the use of Enterprise Resource Planning systems.

The research consisted of Turkey's top 500 businesses published in the August 2015 issue of *Capital* magazine. Telephone interviews with them found that 150 businesses used Enterprise Resource Planning systems, and that the others did not. The research sample consisted of the top 150 businesses from the *Capital* 500. These businesses are located in various cities, mainly in Istanbul. As many businesses as possible were contacted to obtain the best possible sample. The survey method was chosen as the best way to gather data from the businesses. The data were gathered in face-to-face interviews. Although total 375 surveys were sent, only 204 surveys were considered because: The survey was held during a world economic crisis that caused businesses not to want to spare time for the study. Businesses did not complete the survey because it did not include issues related to them. Some surveys were only partially completed or contained invalid data.

This study used the technology acceptance model to determine Turkish businesses' tendencies towards using Enterprise Resource Planning systems. It also studied how businesses apply Enterprise Resource Planning systems. Here is a summary of its findings:

The study found that the variables of innovation, the mutual support of employees, cooperation, team targets, marital status, age, gender, educational status,

unwillingness to use Enterprise Resource Planning systems increase the likelihood of businesses to use them.

The study conducted to determine the factors that affect the intention to use Enterprise Resource Planning systems of businesses that do not do so found that ease of use, variance, willing to use, mutual support of employees, sharing information freely and team sharing are statistically significant.

In this study, "organizational culture" was also included in the stated model and thus it was tried to provide contribution to the related literature. There are two important reasons for organizational culture to be placed in the model: First, the studies showed that organizational culture that creates employee unity and loyalty to the organization has positive effects on the working performance. Second, organizational culture is a social variable that can effect the related decisions and implementations regarding the use of Enterprise Resource Planning. From this aspect, the study indicates that Enterprise Resource Planning is not only a technical system but also a social system requiring group work. Therefore, it is considered that there is a close relationship between the organizational culture and the use and implementation of Enterprise Resource Planning. In this research, the tendencies to use Enterprise Resource Planning were put forward by using the Technology Acceptance Model. It was found out in the end of the research that a majority of the enterprises not using Enterprise Resource Planning knows Enterprise Resource Planning and wants to use it. During the process of planning and strategic decision-making, the latest and most developed technological development is Enterprise Resource Planning. The results obtained from the research concerning the use of Enterprise Resource Planning by the enterprises can also be evaluated as the indicator of the general situation of the enterprises not using v for the enterprises in Turkey. As a result of the research, it was determined that the use of Enterprise Resource Planning would increase.

In this research, the tendencies to use Enterprise Resource Planning were put forward by using the Technology Acceptance Model. It was found out in the end of the research that a majority of the enterprises not using ERP knows Enterprise Resource Planning and wants to use it. During the process of planning and strategic decision-making, the latest and most developed technological development is ERP. The results obtained from the research concerning the use of ERP by the enterprises can also be evaluated as the indicator of the general situation of the enterprises not using ERP for the enterprises in Turkey. As a result of the research, it was determined that the use of ERP would increase in the future.