Chapter 9
Information Technology Prosumption Acceptance by Business Information System Consultants

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ABSTRACT

The goal of human-computer interaction evolves from just making Internet systems easy to use to making them easy to develop. By now, most people are familiar with the basic functionalities of business applications. However, one fundamental challenge for the coming future is to develop Information Technology (IT) environments that allow users who do not have background in programming to develop or modify their own applications. In this chapter, the end-user computing is defined as an IT environment supported by methods, techniques, and tools that allow users of business information systems, who are acting as non-professional software developers, to create, modify, and extend a software system. The purpose of the research is to bridge the gap in the management science by investigating customer participation in information system development and its effect on users' future cooperation behavior. Beyond that, the theoretical framework linking information system development to customer satisfaction and intention toward future collaboration is proposed. In conclusion, the chapter reveals the huge potential of users' capabilities for the improvement of business information system design and development process.

INTRODUCTION

End-users are generally neither skilled nor educated in business information system development at the same level as software professionals. However, it is very desirable to empower end-users to adapt systems at a level of complexity and IT novelty that are appropriate to their individual skills and contexts of work.

Current trends in professional life, education and in leisure time are characterized by increasing change and huge diversity of end-users. They have different skills, knowledge, cultural background, and cognitive and physiological characteristics. Further, the diversity is related to different tasks, contexts, and areas of work. So, end-users can be classified according to the following criteria:

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- I**nvolvement in the information system development processes:** Strongly involved or just watching.
- **Environment:** Personal (home) users, worker (corporate, organizational end-users).
- **Frequency of acting:** Occasional, frequent, extensive.
- **Software use:** Word editors, emails, graphics, accounting applications, Computer Aided Software Engineering (CASE) tools.
- **Educational level:** Basic, intermediate, advanced users.
- **Relationship:** Internal users (co-workers), external users (clients).

For all of them the new challenge of end-user computing is to empower them to develop and adapt information systems for themselves.

Some forms of end-users activities for information system development have been known for years and well developed for the commercial success (e.g. recording macros in spreadsheets and word processors), defining email filters. Therefore, it is possible to formulate the hypothesis that end-users software tools' development enable a considerable competitive advantage in adapting to dynamically changing environments by empowering end-users in particular domains. On the global level, end-user software tools' development is important to increase people participation in the emerging Information Society.

Innovation research has emphasized the importance of understanding user needs in the process of new product development. However, it is not sufficient to understand or even satisfy existing customers, but rather it is necessary to lead existing customers and create new customer segments. Therefore, companies could be interested in customer involvement in production or service delivery process. Customers are expected to support companies to reduce research and development costs, to differentiate services, reduce the time to market, facilitate user education, improve market acceptance, or even to provide more original and valuable proposals than professional developers.

General classification of customers in IT sector covers lead user, normal user and user community (Matthing *et al.,* 2004, Baldwin *et al.* 2006). Lead users are critical to the development and adaption of complex products. They demand innovations ahead of the general market of other users. They face needs that will be the future trends in the market place and they are actively engaged in the innovative process. Normal users can help to provide superior and differentiated services, reduce cycle time, increase acceptance of the new service. Community users are interested in technological products and they play important role in the advance of technologies (Tapscott &Williams, 2007). The chapter aims to emphasize that organizations are beginning to realize the potential benefits, which can be captured when end-users and organizations co-create value.

Encouraging end-user to be value creators is the next step in the competitive effectiveness increase process. Many authors argue that end-user value co-creation is critical for marketing success because under the service-dominant logic end-users are contributing to the process of marketing, consumption and delivery of products and services (Claycomb *et al*., 2001). This emphasizes the shifts from value adding to value co-creation, from products to experiences, from value delivery to value propositions and exchange of resources. Beyond that, user co-creation of value benefits them (e.g. faster speed and lower prices) as well as firms (e.g. enhanced operating efficiencies and greater service value). End-users can actively participate in creating solution when service failure occurs by applying specialized skills and knowledge. For example, users can diagnose their laptop problems based on the product's user manual. Research on end-user participation to date has focused on how to employ them to increase productivity in the service delivery context without consideration of failure (Prahalad & Ramaswamy, 2000).