

Investigating of Factors Affecting the Adoption of Electronic Commerce in Cooperatives

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Abstract: Rapid changes in technology in recent years have caused the boundaries between computer and electronics, and telecommunications, on the other hand to be destroyed and this convergence underlies a new technology called information technology. Importance of adoption of information technology as a powerful factor in social and economic changes has caused a lot of investment for development. One of the applications of ICT is in the field of e-commerce technology. Adoption of e-commerce technology can have major benefits for organizations. Regarding to this fact that using e-commerce technology improves the contest ability of small and medium agricultural companies with large companies even in international level, adoption of it could have important role in country development. In order to adoption and distributing of more technology, study of factors affecting on technology adoption is of the most important aspects of its publication. The purpose of this study was to discuss the factors influencing on adoption including quality of systems, satisfaction of systems, self-belief, and self-efficacy, attitude toward using technology, perceived risk, socio-economic status and trust using review of library documents.

Keywords: e-commerce, adoption of innovation, self-efficacy, risk, trust

1. Introduction

In today's world, given the current turbulent environment, businesses around the state and the new business is being born. One of the factors is the evolution and progression of technology businesses. ICT as a new technology, which led to drastic changes in the business world, including the development and alignment of businesses toward e-commerce [1]. Today, the advent of information technology and electronic commerce creates new opportunities and opportunities for firms to compensate for weaknesses such as inability to access new markets, improve research and development activities in the international arena [2]. With introducing e-commerce, the old dream of many organizations to be active in new trade markets in international arena and job away from boundaries got true [3,4]. Electronics business offers multiple benefits for both consumer and seller. Vendors can use the e-commerce for very small parts of markets that have high variation to make them to be in access, customers get benefits through access to world markets and the availability of goods through various vendors with low cost [5]. Improvement of existing products and creating new methods of selling products is another advantage of electronic commerce [6]. However, despite the many advantages of e-commerce, use of it by small to medium agencies is limited. Studies have shown that different organizations have different problems in the development or adoption of electronic commerce. In general, the adoption of e-business, there are many risks that create and reinforce the confidence to start a business on the Internet and this problem will lead to a decrease in the acceptance of e-commerce. In general, surface diffusion, adoption and use of IT are an issue and a big challenge. In fact, a better understanding of technology adoption in different cultures requires a broad view of the technology and information. Therefore, the main purpose of this study was to find understanding of the factors influencing the adoption of electronic commerce as a new technology in the organization[7-10].

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2. Methods

This study examined the factors affecting adoption of electronic commerce and was an applied research. The current study, in view of classification was based on the literature review. Data collection method was library information that with the literature study, taking notes, search the Internet and information gathering translation have been done.

3. Results and Discussion

Factors affecting the adoption of e-commerce

Factors affecting the adoption of electronic commerce, including culture, attitudes towards ICT, socio economic status, self-efficacy, perceived usefulness of computers were of theoretical bases for factors influencing on e-commerce adoption, which are described in this section.

1. Culture

Cultural differences not only affect on development of information and communication technologies, especially e-commerce project, but also affect on adoption of ICT [11]. In addition, cultural differences in different areas for managers who deal with business and for e-commerce sites, especially those who have international clients, are important [12].

2. Attitudes toward the use of technology

Triandis (1971) defined approach as "an emotionally charged ideas that provide the basis for a set of measures of social situations for a particular group"[13]. Triandis (1980) argued that individual behavioral intention by the person's feelings about the subject, expected outcomes of behavior (knowledge) and what is expected of a person in a social context is determined.

He named three main sections for attitude:

- A) a cognitive component, which includes the ideas,
- B) an emotional component, which includes emotions as response and
- C) a behavioral component that contains accommodation for an action[14].

3. Socioeconomic status

Socioeconomic status is used to describe the lifestyle aspects of an individual including household income, education and occupation [15].

"Resources and economic potentials have pivotal role in determining:

- (1) whether the use of ICT by people
- (2) and consequently, the nature and pattern of using ICT [16].

"Socio-economic status have major costly roles for the use of ICT technology by many people and can be an inhibiting factor for the use of ICT," because the technology is an expensive for most people in the business"[16].

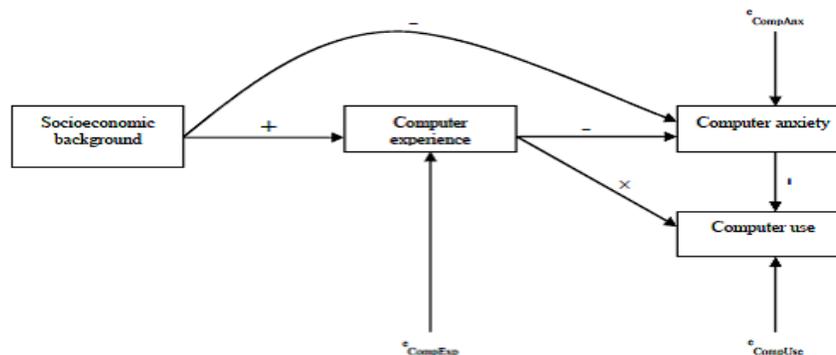


Fig. 1. SES and using computer

4. Computer self-efficacy

Self-efficacy of computer is defined as "people's judgment of their ability to use the computer" [17]. According to Bandura (1982) self-efficacy, is "the one's belief in personal capabilities to organize and execute the courses needed for success" [7]. Shang et al. (2005) showed that self-efficacy is capable of predicting consumer online behavior [18]. Eastin (2002) did internet self-efficacy to predict the behavior in all e-commerce activities and suggested that efficacy can be considered as a new variable in the process of adoption. Use of e-commerce and self-efficacy of website should be directly related to computer self-efficacy as the person most likely have effort and insisted in behaviors that feel merit to them [19].

5. Perceived Usefulness

Mathwick et al. (2001) defined perceived usefulness as the extent to which a person knows that a particular system will enhance his professional skills [20]. Bhattacharjee (2002) in his study concluded that an individual's willingness to transact with an electronics company is considered beneficial [9].

So, the perceived usefulness of the system is probably the most important element in the decision to adopt e-commerce. Potential users, usually do these judgments based on the perceived ability of technology to achieve their goals, including the speed, quality and ease of usage [21].

6. Trust to beliefs

Researchers linked the trust to beliefs with characteristics such as honesty, benevolence, empathy, skill, ability and predictability. In terms of e-business, Cody-Allen and Kishore (2006) defined self-beliefs as "understood trust" or the degree to which the e-commerce users sees reliable. Beliefs are main determinants of attitudes towards a behavior that eventually make up the trust [10].

7. Information and Quality of systems

Information and system Quality (ISQ) has effect on the formation of trust behaviors attributed to particular information systems. As Cody-Allen and Kishore (2006) described it as "information and system related to characteristics leads to formation of belief" [10].

8. System satisfaction

User satisfaction is potentially an important variable in information systems and online research. In online environments, Szymanski and Hise (2000) were believed that Internet satisfaction [22] were customer satisfaction of internet sales and recognized six factors associated with satisfaction: convenience, product, product information, site design, and financial security.

9. Trust

Researchers believe that the success of e-business is directly related to the level of consumer confidence in technology [4,23-25]. Lack of consumer confidence is as the main obstacle to the success of electronic commerce [26,27]. If the consumers could not create self-confidence, predictability, integrity and trust toward seller, they are likely to cancel their purchase, and look for a reliable place [28,29].

Trust has three-dimensional structure that includes:

- 1 interest trust: study of willingness to trust in consumer's perspective
- 2 organizational trust: confidence to infrastructure and institutions of e-commerce.
- 3 Interpersonal trust: trust to beliefs about the seller's [29].

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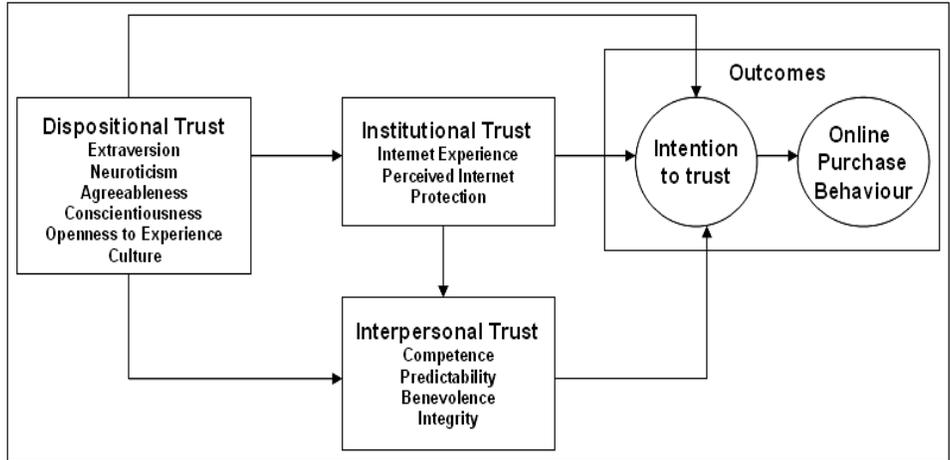


Fig. 2. Multi dimensional trust model [29]

10. sensed Risk

Despite the obvious advantages of electronic commerce, many consumers are still reluctant to buy products online. This reluctance may be due to the risks associated with e-commerce transactions. Risk can be defined as "the consequences of consumer behavior in every action that he/she certainly was not capable of prediction and some of these consequences are likely to be undesirable" [8]. Risk has a multidimensional structure [30]. Jacoby and Kaplan (1972) considered seven types of risk, including operational risk, financial, social, psychological, personal, time, and general risk factors in relation to online shoppers. Table 1 shows the dimensions of risk and their definitions [31].

Table 1. Dimensions of Risk and their definitions

Definition	Risk kinds
Failure imposed when a product or brand is expected to not work	Operational risk
Potential of financial ruin as a result of the purchase and subsequent maintenance costs	Financial Risk
The loss of time with a bad decision to buy that causes loss of time by the time spent through searching for buying or the time spend learning purchase to replace the item purchased not in accordance with our expectations [32].	Time risk
Risk selection process with its negative impact on consumer perceptions of subjectivity	Mental risk
Risk of loss of status within a social group looking to adopt a new product or service [32].	Social risk
Potential loss of control over personal data [32].	Private Risk
The overall evaluation of perceived risk when all criteria are considered with each other [32].	Total risk

4. Conclusion and suggestions

Today, the advent of information technology and electronic commerce creates new opportunities and opportunities for firms to compensate for weaknesses such as inability to access new markets, improve research, development, and activity in the international arena. With the advent of electronic commerce, the old dream of many organizations working in the field of international business in new markets abroad come true. Electronics business offers multiple benefits for both the consumer and seller. Sellers can use electronic commerce to a very small portion of market with wide distribution to be accessed; purchasers through access to global markets and the availability of other of goods from

different vendors with lower cost receive benefits [32-37]. Improvement of existing products and development of new methods of selling existing products are of another advantage of electronic commerce. Considering the importance of e-commerce to increase the rate of adoption, it is necessary to encourage the factors that promote the adoption. These factors as discussed include socioeconomic status, attitude toward using technology, self-efficacy of attitude to the use of technology, confidence to system, self-belief, patient satisfaction and quality of the system. Therefore, based on the findings the following recommendations are given:

Because the lifestyle and status within a social group such as gender, education level, annual income and occupation has influence on adoption of e-commerce, so, governments educate people and enhance their familiarity with internet and web applications and appropriate action. The issue of gender orientation, particularly in underdeveloped countries is of the highlights noteworthy that culture should be attempted to remove the gender gap.

- self-efficacy is one' belief in ability to work using the system. It is recommended to hire professionals in an organization to enhance the ability of individuals to use the system.
- Based on the findings of research users feel threatened of putting personal information on the website. It is highly recommended to organizations to use the security features to protect users [38-44].

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