

e-Business Assimilation Levels in Lebanon

Mary Ann B. El Rassi and Antoine Harfouche



Abstract Developing countries are a potential growth site for e-business expansion and adoption. But despite this promising opportunity, Lebanon has been slow to adopt e-business and the gap between initial and advanced adopters (routinizers) is significant. This paper investigates the factors that explain the differences in e-business assimilation levels. The Perceived e-Readiness Model was adopted and then adapted to fit the Lebanese context. Quantitative data were collected from a large sample of 171 executives from three different industries: banking, retailing, and tourism. While comparing initial adopters to routinizers, our results have shown that routinizers choice to adopt e-Business was based on strategic planning, while initial adopters were mimetic followers.

Keywords e-Business assimilation · IDT · Perceived e-Readiness · Initial adopters · Advanced adopters

1 Introduction

E-business can bring positive potentials to developing countries in addition to making businesses more competitive by offering new opportunities and possibilities for development [1, 2]. According to [3], “by reducing information asymmetry, the Web can increase market efficiency. By lowering intermediation costs, it increases transactional and operational effectiveness. By delinking the storage, processing and ferrying of information from location, it makes distance largely irrelevant,

M.A.B. El Rassi (✉)
Université Saint Joseph, Beyrouth, Lebanon
e-mail: maryann.barbourrassi@usj.edu.lb

A. Harfouche
Université Paris Ouest Nanterre La Défense, Paris, France
e-mail: antoineharfouche@icto.info

thereby multiplying the scope and scale of services delivery. Lastly, it is an enabling tool which people can use for increasing productivity.”

By using the Web, firms in developing countries have an equal opportunity to access the global markets easily, operate more efficiently, and compete fairly [4]. There has been increased interest recently in online startups that hold promise for different industries, including banking, tourism, retail, education and government. Despite many efforts to capitalize on this growing field, e-business activities in Lebanon do not offer much to the economy.¹ This is due to many reasons that hamper its growth including the weak presence of governmental programs to promote the benefits of e-business [5, 6] and the lack of regulatory supports [7].

However, despite the importance of this topic, there has been very little systematic investigation in Lebanon about why some firms succeed in assimilating e-business while others do not. By assimilation we mean, “to which extent the information and communication technology (ICT) diffuses along the organization’s processes and to which extent it becomes integrated in the related activities within the organization” [8].

This paper aims at identifying the factors that affect e-business assimilation in Lebanon. The Perceived e-Readiness Model (PERM model), developed by Molla and Licker [9], was used and then adapted to fit the Lebanese context.

The research methodology was based on a survey conducted to collect. Quantitative data from a large sample of 171 executives. The sample was randomly selected from three specific industries: banking, retailing, and tourism. The data collected were Analyzed using the techniques of Structural Equation Modeling (SEM).

This research reflects our concern ro investigate the factors that can help in attaining the different stages of e-business assimilation in developing countries (DC). Why and how do firms implement ICT have always been the researchers interest in Information System. Therefore, we will discuss the major theories concerning e-business assimilation, then we will present our research model, methodology and results.

2 e-Business Assimilation Theory

Assimilation is a vital construct that can be observed starting from the firm’s adoption of ICT till its impact on the organizations’ business performance. Purvis et al. [10] define the assimilation processes as “the extent to which the use of technology diffuses across the organizational work processes and becomes routinized in the activities of those processes”.

Furthermore, in the literature, most of the studies were based on Rogers’ model in conceptualizing innovation adoption as a process through which individuals and

¹<http://www.wamda.com/2013/02/overview-of-the-e-commerce-scene-in-lebanon>.

other decision makers would pass from first knowledge of a certain innovation to another phase. According to Rogers, the first phase starts by forming a certain attitude towards innovation, then taking the decision whether to adopt or reject the implementation of a new idea and then confirmation of such a decision. Rogers clearly argues that innovation's characteristics are a result of the adopters' perceptiveness of such an innovation. He states that "subjective evaluation of an innovation, derived from individuals' personal experience and perception and conveyed by interpersonal networks, drives the diffusion process" [11].

Furthermore, the theory of Innovation Assimilation also distinguishes between the adoption and assimilation processes. While the adoption process refers to spreading the technology across the organization and among its population, Zhu et al. [12] define e-business assimilation as a series of stages from a firm's initial evaluation of e-business at the pre-adoption stage (initiation), to its formal adoption and finally to its full-scale deployment at the post-adoption stage. During the routinization stage, the e-business becomes an integrated part of the value chain activities.

In this paper, we adopt Zhu et al.'s definition of e-business assimilation that consists of three stages: initiation, adoption, and routinization. The second and third stages of assimilation (adoption and routinization), that describe different levels of e-Business, have particular relevance to our study.

2.1 The Initiation Phase

The first phase "amounts both to identifying and prioritizing needs and problems on one hand and to searching the organization's environment to locate potential solutions that can meet the organization's problems" [11]. Kwon and Zmud [13] argue that the pressure to adopt innovation can derive either from the organizational pressure and needs (pull), or from the technological innovations (push), and/or sometimes from both. This first phase is similar to stages 1–3 in Rogers' model (Figs. 1, 2).

2.2 The Adoption Phase

After making the decision to adopt the new technology, its acceptance or rejection within the organization becomes crucial. This stage is represented by Stages 4 and 5 in Rogers' model (Fig. 1). After initial adoption, the firm and its members usually do not have sufficient knowledge to leverage the system, and often misalignments occur between the new technology adoption and the user's environment [12]. Therefore, the use of resource allocation in this phase can help spreading e-business assimilation in the advanced phase [8].