

THE FACTORS INFLUENCING E-FILING ADOPTION AMONG JORDANIAN FIRMS: THE MODERATING ROLE OF TRUST

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Abstract

Jordan has effectively enhance its emphasis on the infrastructure and technology; and due to this step Jordan government seeks to improve the relationship between the taxpayers and the government that receive tax with the help of a transparent application and more effective. Despite e-filing (EF) is available and convenient and the income and sales tax department (ISTD) makes an effort to promote such e-services, it is not widely used by taxpayers. The current paper adopts the technology, organization, and environment (TOE) frameworks to identify the variables that have influence on e-filing adoption of the firms in Jordan with the help of diffusion of innovation (DOI) theory by adoption of three factors such as technological, organizational, and environmental as a predictors of e-filing adoptions among large firms in Jordan with trust use as moderator between exogenous variables and endogenous variable. Where, trust is a significant factor of the users' acceptance of e-tax filling and the payments system. This argument could enhance e- filing comprehension and help to rectify variability and inconsistency of findings in the literature.

Keywords: E-filing adoption, Diffusion of Innovations (DOI) theory, Technology–Organization–Environment (TOE) Framework, Trust, Jordan.

I. INTRODUCTION

Jordan has significantly enhance its emphasis on the infrastructure and technology; and due to this step Jordan economy are in a better position in the entire Middle East [1,2]. One of the recent studies concludes that this focus has a significant influence on the businesses of Jordan because organizations tries to enhance their positive in the marketplace by accepting or adopting latest technology to remains in the existing market [1]. Specially, the overall financial performance of the Jordanian firms is weak [3]. To provide a competitive and encouraging environment for investments, the information and communication technology (ICT) sector in Jordan has the aim to provides a secure and sufficient infrastructure for vigorous

distribution of the technologies to every sector that have end objective of digitalizing the economy of Jordan.

In Jordan, the electronic government (hereafter e-government) program started in 2003 [4]. The major reason behind this program is to deliver the public services for the general public across the overall country in spite of their locations. Therefore, the (ISTD) initiated the e-government initiatives which included (EF) in 2005, given the problem associated with the manual filing system. The objective of this department is to provides the higher quality of services that leads to reduce the time, as well as, efforts on general public and the workers with the intentions that the general public or citizens without the access to

service department, no matter what's the location of the citizens, they live in Jordan or in some other country not matter, since this facility is accessible 24 hours in a week because the general public can access this facility in the off days or holidays [5].

Furthermore, The importance of tax revenue for the Jordanian economy cannot be underestimated because tax are the main source of revenue to the Jordanian economy [6] which is a major item in the Jordanian budget, contributing around 70% of the domestic revenue during the period (2010 – 2016). In addition, the tax income ratio to GDP in the Kingdom stands at 15.5%. On the other hand, the corporate sector in Jordan plays a key role in domestic revenue. It contributes about 17.6% of total tax revenues [7]. Consequently, firms must redesign themselves towards excellence, using the required creativity and innovation tools [8,9].

2. LITERATURE REVIEW

This section covers the literature indicated that in the previous section, this part consists of the following discussions: Overview of e-filing Development in Jordan, Definition of e-filing system, A Proposed Theoretical Framework, Constructing a conceptual framework and hypotheses..

2.1 Overview of e-filing Development in Jordan

Jordan is considered as an emerging nation and starts various ICT development programs in early 2000 [10]. When, King Abdullah II came in position and rule over Jordan in 1999 then King Abdullah II works a lot in the field of ICTs in order to develop their economy, as well as, social life of Jordan [11,10]. Therefore, the Jordan government performs well and adopts some programs in order to attain the accountability, the modernism, and at the end the most wanted reforms.

The purpose of this program to align the objectives of Jordan agenda to make sure that in Jordan public sector fulfills the criteria of transparency and the accountability [12].

According to [13] the accountable party of this program (e-government project) in Jordan is Ministry of Information and Communication Technology (MoICT). MoICT is a party that is accountable in Jordan for the attainment of the Jordanian goals with the help of e-government project. Where, the Jordan government focus on it and started e-government project in early 2001 and new office build that is known as Program Management Office (PMO) to facilitates the Jordanian ministry and also synchronize e-government programs. Furthermore, study the advantages that should be offered to general public and increase the perception of people to these e-services.

E-government in the Jordanian economy aims to make superior the delivery of government services, accuracy while decreasing the amount of time and cost, and service efficiency, the portal includes nearly 49 services [14]. Therefore, it's arguably the rationale behind the project is to build up Jordan publicly and cost-effectively by enhancing the performance of the government [15]. This is in terms of the service delivery through improved efficiency, accuracy, low cost, general public satisfaction, cross governmental assimilation and the style of the government and its awareness [16]. In Jordanian tax context, (ISTD) introduced one of the e-government initiatives which included Electronic Tax Filing service (ETF) in 2005, to offers the better quality services that leads to reduction in time, as well as, efforts of the general public and workers so that general public exclusive of the access to this service department without consider their place either in Jordan or in some other countries this facility is accessible 24 hours in a week in off days also [5].

2.2 Definition of e- filing

The e-tax systems refers to a system that facilitates government in decreasing the corruption level, make sure the transparency and the accountability, and save the operational cost that occurs during transaction [17]. Moreover, this system is deemed as e-government facility that target general public (government to general public environment) or

businesses (government to business environment).

Besides, the e-tax filling project refers to a system where the tax-returns submitted with the help of digital technology such as internet facilities for transactions that reduce time and operational cost [18,19]. Meanwhile, the e-filling is the latest and efficient way of filling the tax returns to government by using internet technology, as well as, made the payments of tax electronically [20,21]. E-filling system is a system of submitting of taxes with the tax return (SPT) electronically on-line system [22]. In addition, e-filling is part of modern tax administration system which is used to submit electronic taxpayer notification to Directorate General of Taxes conducted through the real-time on-line system by utilizing an internet communication network.

2.3 Theoretical Framework

This following section will explain and review the underpinning theories that have been adopted to attain the goals of current paper. The first theory is the diffusion of innovation (DOI) theory that discusses innovation characteristics. Second is the technology, organization, and environment (TOE) framework to explain the e-filing adoption phenomena and to determine the TOE factors that effect on the adoption of e-filing system.

2.3.1 Diffusion of Innovation Theory (DOI)

The adoption of innovation is not a new concept because it has been under research more than thirty years and most of the accepted model for adoption of innovation presented by Rogers [23]. This model presents an important insights that what are the reasons that some of the practices alters and other not [24]. Rogers DOI model covers all compulsory stages of the adoption [25]. In addition, DOI model is the combination of three elements such as innovation characteristics, the innovating decision process, and adopter characteristics [25]. The characteristics of innovation includes five major variables such as trial ability, relative advantage, complexity, observe-ability, and compatibility are the effectives variables for any kind of innovation acceptance. The

innovation option includes five steps such as confirmation, knowledge, implementation, decision, and the final one is persuasion. The adopter characteristics covers the five categories such as innovators, early adopters, late majority, laggards, and the early majority are defined [26,27]. Therefore, DOI pays much attention over system characteristics such as organizational, technological, and environment [27]

2.3.2 TOE Framework

TOE is popular models that explain the technology adoption. Tornatzky and Fleischer introduce TOE framework in the 1990s with the help of contingency theory that proposed that effective structure of an organization must be according to its organizational and the environmental needs. Moreover, it highlights the innovation adoption within an organization includes a multidimensional decision that influence by various contextual factors [28]. This framework covers three factors such as technological, organizational, and the environmental.

2.4 Conceptual framework and hypotheses development

Current paper helps to examine the factors that influence of e-filing adoption among Jordanian firms. Figure 1 explains a research framework, hypotheses were developed concerning the determinant critical factors of examining the moderating role of trust between TOE factors and the adoption of e-filing system among Jordanian firm.

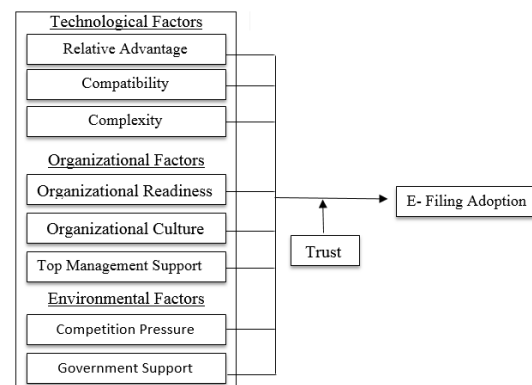


Figure 1: *Proposed framework*

2.4.1 Technological Factors

Concerning of technical factors that are related with IS adoption, the Previous literature has identified many technical predictors that influence adoption decision. The following section explains the technological factors influence the adoption of e-filing system according to the studies and theories mentioned. Technological Factors are related to technical factors that are associated with IS usage, the Previous literature has identified many technical factors that influence adoption option. The following part shows the technological factors that are likely may effect on the adoption of e-filing system according to the studies and theories mentioned.

2.4.1.1 Relative Advantage

According to [29] the user's attitude towards the innovation is one of the vital element that drive the technology adoption [30]. In view of that, innovation that has precise, definite advantage in creating the operational effectiveness such as minimize the processing cost has a higher impetus for adoption [31,32]. In addition, Rogers observes the relative advantage of the innovation technology as definite level of advantage perceived by employing the new technology rather than original technology [33]. Moreover, the relative advantages will take and influence business in adoption of latest technologies [34]. Hence, positive insights of IS advantages must offers an inducement as a valuable business strategy to adopt innovation [35,36]. This leads to develop the following hypothesis:

H1: Relative advantage has a positive influence on E- filing adoption.

2.4.1.2 Compatibility

The compatibility concept means the degree which extent the Technological Innovation fits with the probable current adopter values, prior practices and the existing needs [25]. [37] confirms that compatibility between the technology innovation and organizational culture together with their method of performing and is significant factor of the innovation use cite by [38]. The issues with

compatibility makes difficult to initiate the use of innovation [39]. There are various types of compatibility; [28] recommends that the compatibility includes the normative compatibility such as (norms and values) and the other type is operational capability such as the current practices [40]. Subsequently, Through a more comprehensive conceptual definition was developed that classifies the concepts of compatibility into four distinct structures, compatibility with the preferred method of work, compatibility with values, compatibility with current work practices, and compatibility with past experiences [41]. Therefore:

H2: Compatibility has a positive influence on E- filing adoption.

2.4.1.3 Complexity

The term complexity of an innovation widely researched in the literature of IS [42,43]. Where, the complexity means the level of which innovation is seemed as relative hard to recognize and difficult to apply [44,45]. According to [46] complexity means to simplify the understanding and the use of e-tax filing system. Moreover, the latest technology can be threatening for the workers, as well as, for organization if it needs the changes to current business process and acquire the new technology. Notably, the complexity are on number three in the significance of technological factors in the e-government studies [47,46]. Moreover, the organizations might face some issues and the difficulties that transform their process because of the adoption of latest technology that mix together with the business process. Few of the prior studies reveals that the latest technology should be easy for the use and available for increasing the amount of adoption [48,23]. Therefore:

H3: Complexity has a negative influence on the e-filing adoption.

2.4.2 Organization Factor

The organizational factors means the distinctiveness that leads to accept the new technology within an organization [28]. Where, these factors have a significant influence over

the intention of an organization to use latest e-services.

2.4.2.1 Organizational Readiness

The readiness is conceptualized as a degree of readiness to accept the latest technology such as IT innovativeness [49,50]. In addition, the firm's readiness by the related terms such as IT policies, IT skills, and finally the IT infrastructure. Few of the prior researchers use the term technological readiness to reveal the technological dimension [51,52]. Also, OR refers to whether a firm has accessible resources for technology adoption [53]. Therefore, OR is an important predictor in the technological adoption in organizations [45]. Therefore:

H4: Organizational Readiness has a positive influence on the e-filing adoption.

2.4.2.2 Organizational Culture

Understanding of OC in an organization provides the glimpse of what goes on in the organization, how to run them and how to improve them [55]. Besides, OC is known as one of the most influential and stable force operating in the organization [55]. Similarly, few of the researchers identifies that firms culture plays a high role in the attainment of their short term and long term performance [56,55]. OC is a key variable of the technological innovation adoption. In addition, the acceptance of new technology within an organization heavily depends over their flexible culture that has no issue regarding the resist change. Hence, the organizational culture is considered as crucial factors in organizations for the success or the failure of the IT adoption system. Moreover, another researchers investigates the relationship between OC and the intranet adoption within an organization [57]. Therefore:

H5: Organizational Culture has a positive influence on the e-filing adoption.

2.4.2.3 Top Management Support

The term top management support considers an important part for successful technology adoption at organizational level [58,59]. In

particular, this construct consists the level to which the senior managers recognize the advantages of this technology, as well as, they should be clear that this technology will not disturb the overall vision of the organization then they accept this technology [60]. In sum, there are some studies that elucidates that when firms recognize the importance of the internet applications then they tends to play a high role to convince organization members to accept this technology and organization also spend some of the valuable resources to accept that technology [59]. As, few of the previous researchers elucidates that top management support is an important factor that allows IT adoption in organization [60]. Moreover, some of the prior researchers found that top management support within organizations has an increasing influence over technology adoption [61,62]. Therefore:

H6: Top management support has a positive influence on e-filing adoption.

2.4.3 Environment Factors

The TOE framework environmental factors relates to the area by which an organization carries out their works [28] (Tornatzky & Fleischer, 1990). For instance, industry, dealings with government, reach to resources, and competitors [63]. The following section shows the environmental factors that influence of the adoption of e-filing system according to the studies mentioned.

2.4.3.1 Competitive Pressure

Literature refers that pressure from competitors is considered a crucial factor for the technology diffusion [64,65]. In addition, it is normal that a market with high competition alarms organizations to focus on their technology because this helps organizations to increase their performance and gain advantage over their competitors [59]. One of the latest studies concludes that in a high completion market organizations can gain advantage over competitors to launch their big data first and after that use this for the support and betterment of organizations [64]. Therefore:

H7: Competitive pressures have a positive influence on the e-filing adoption.

2.4.3.2 Government Support

The term GS refers to the support from government to the organization to motivate those organizations to adopt the IT innovation [64,66]. Meanwhile, there are some studies determined the influence of government support variable over IT adoption and findings reveals that government support plays a high role to accept new digital technology [67,59]. Therefore:

H8: Government Support has a positive influence on the e-filing adoption.

2.4.4 The Moderating Role of Trust

User trust comes from the field of sociology and the psychology. It is subjective expectations an organization has regarding another's future behavior [68]. On the other hand, in the internet transactions trust divided into two kinds such as direct trust and the other one is recommendation trust. Direct trust is established due to the personal experiences at the time of occurring a transaction. While, the recommendation trust refers to a trust that established on the base of others experience. Notably, the term system trust base on its reliability, security, and the effectiveness [68]. Literature reveals that systems behave in a manner as citizens expected to fulfill the intended objectives [68]. For example, reliability of computer device heavily depends over the effectiveness of their software and hardware to execute particular activity.

Trust means the level to which e-government program will deliver the necessary many of facilities to the organizations and citizens [69]. For instance, private information of the general public should not misuse. Meanwhile, According to [70] trust presents into two levels within organizations. For instance, trust between two different firms and trust between two workers of different firms. The trust between firms was revealing different then the trust between workers of different organizations. Therefore, both type of trust play an important part in the bargaining, as well as,

negotiation between two firms [68]. Hence, the present framework is equally applicable to B2G and B2C.

trust also minimize the time and the resource spending monitoring or the incentive practices that one party believes that the other party will not take advantage due to misguiding [71]. Thus, researchers give argument that trust has a significant influence over organizational performance as it might be contingent with the trustor and trustee behavior [71]. The use of ICT in the government has initiated the new ways to communicate that can improves relationship between government and citizens [72,73]. Hence, the present framework is equally applicable to B2G and B2C. Therefore:

H9A: Trust moderates the relationship between relative advantage and e-filing

adoption has a positively.

H9B: Trust moderates the relationship between compatibility and e-filing adoption

has positively.

H9C: Trust moderates the relationship between complexity and e-filing adoption has negatively.

H9D: Trust moderates the relationship between organizational readiness and e-filing

adoption has positively.

H9E: Trust moderates the relationship between organizational culture and e-filing

adoption has positively.

H9F: Trust moderates the relationship between top management support and e-filing

adoption has a positively.

H9G: Trust moderates the relationship between competitive pressures and e-filing

adoption has positively.

H9H: Trust moderates the relationship between government support and e-filing

adoption has positively.

3. Proposed Method & Instrument Development

The current study is quantitative in nature and attempt to determine the relationship between relative advantage, complexity, compatibility, organizational culture, organizational readiness, top management support, government support and competitive pressure with e-filing adoption with the moderating role of trust in Jordan. Consequently, this study will use the Statistical Package for Social Sciences (SPSS) version 23.0 and SmartPLS 3.2.8. The data will analyze in four stages; a test of differences, factor analysis, descriptive statistics, and multiple regression analysis. In this study, unit of analysis is organizations that are listed under Companies Control Department in Jordan. In this study, survey questionnaire technique will use to collect data from the respondents because questionnaire provides an efficient, fast, precise and inexpensive means of assessing data from respondents [74]. According to [75], there are several benefits of booklet questionnaire. For example, easier to follow and it also looks more professional. Booklet questionnaire prevents from the misplaced pages.

4. Conclusion

The current research looks for to examine the factors influencing of e-filing adoption among firms in Jordan, especially as most firms in Jordan do not fully realize an e-filing system in general and do not fully realize the benefits of e-filing system. The more general execution of e-filing provides the country with the more efficient and productive work in the country, through improved performance and efficiency in the private sector, improve the competitiveness of Jordan around the improve and promote the development of the ICT sector in Jordan.

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