

## Electronic Tax Filing Adoption and its Impact on Tax Employees Performance in Jordan: A Proposed Framework

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**Abstract:** Technology adoption does not only influence end-user, it also improves employee performance as well. Task-Technology-Fit Theory highlights the link between technology adoption and employee performance, however studies are rare in the context of taxation. This paper discusses whether electronic tax filing (ETF) adoption improves the employee performance in the Jordanian Tax Offices. By utilizing the unified theory of acceptance and use of technology (UTAUT), the paper proposes a framework on the antecedents of electronic tax filing and its impacts on employee performance of the Jordanian Tax Offices. The proposed framework could give significant practical insight and implication to tax authorities worldwide that implement ETF, especially the Jordanian Tax Office.

**Key words:** Electronic Tax Filing • Employee Performance • Technology Adoption

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### INTRODUCTION

The importance of tax in the Jordanian economy cannot be overemphasized. In 2013, both income tax and sales tax contributed about 68 percent of the government revenues in Jordan [1]. As a fiscal tool, the Jordanian government uses the tax system to boost the national growth, encourages investment in profitable business opportunities, redistributes income and regulates the circulation of certain goods and commodities within the economy [2]. It seems that the role of tax in Jordan stretches beyond the fiscal objective to include the economic and social objectives [1]. The automation of the government system and functionary has become a necessity for any countries that wish to achieve good governance [3]. Broadly, the majority of the national governments across the world have so far embraced the digital revolution [3] through the adoption of e-government services.

E-government is the application of information and communication technologies (ICTs), such as the internet and another similar gadget to enhance the government's ability in discharging its functions and services to the citizens. Mainly, the objective of the e-government platform is to improve the governmental service delivery at the conveniences of the citizens [4, 5], while promoting

transparency and accountability in public administration [6, 7]. Thus, it is not surprising to see a major shift towards the automation of public services worldwide [8].

In 2002, King Abdullah through the Ministry of Communications and Information Technology (MoICT) rolled out a national program on e-government [9]. According to MoICT [10], the rationale behind the project is to develop Jordan socially and economically by enhancing the performance of government. This is in terms of the service delivery through improved efficiency, accuracy, cost-effectiveness, citizen satisfaction, cross-governmental integration and the style of the government and its perception. So far, the initiative has been marked with success, as Jordan was ranked 18th out of 115 countries in the world in e-government success as reported in the global information technology report 2004-2005 [8].

Electronic Tax Filing (ETF) or similar tax filing system as an offshoot of e-government application is widely adopted across the world. Owing to its significance, the Income and Sales Tax Department applied the e-tax filing system as an offshoot of e-government to enhance the efficient collection of tax in Jordan. This system is beneficial because it helps to avoid mistakes associated with the manual filings and it also reduces the prevalence of tax evasion when properly applied [11].

Table 1: Income Tax Collection in Jordan 2011 – 2013 (in Jordanian Dinar)

Taxpayer	2011	2012	2013
Corporation	567, 881	544, 966	533, 735
Individual	68, 763	55, 527	51, 984
Total	636, 644	600, 493	585, 719

Source: Income and Sales Tax Department [14]

Although ‘ETF’ system has been adopted in Jordan, it is still challenged with the problem of income tax evasion that is described as reaching to a relatively high level in Jordan [1]. The Head of the Financial Committee Aiman Almajali, during a session of the Jordan Parliament Council in 2012, highlighted that the amount of the income tax evasion in Jordan in 2012 is estimated at 800 million Jordanian Dinars [12]. This issue can lead or has led to a deficiency in the states’ budget deficit. In fact, deficiency in the Jordanian budget in 2013 is estimated about 1, 031 billion Jordanian Dinars [13]. Consequently, it will lead to inefficiency of economic development and provision of amenities in Jordan.

Therefore, the employees of the tax authority play a vital role in collecting the income tax for the state’s income. Based on the available information of the actual income tax collection in Jordan as shown in Table 1, it indicates a decreasing trend in the income tax collection. Consequently, this implies that the employees’ performance may not reach the desired level in order to achieve the anticipated tax collection.

A number of factors motivates the current study. First, it seems that very few studies have been conducted in the field of accounting, taxation (including ETF) in the Middle East region broadly and particularly in the context of Jordan. Second, most of the available studies related to the ETF were conducted in the developed Western countries, such as Australia, the UK, the USA and Canada [15]. Lastly, majority of the studies conducted in the past focused on the impact of electronic tax filing on taxpayer [16, 17, 18, 19]. The current proposal focuses on the influence of performance expectancy, effort expectancy, social influence and facilitating conditions on the ETF adoption and its subsequent impact on the tax employees’ performance. Thus, this might add significance to this study. Therefore, in line with the motivation above, the main objective of this paper is to propose a framework for assessing the effect of performance expectancy, effort expectancy, social influence and facilitating conditions on the ETF adoption in Jordan. The proposed framework also assesses the subsequent impact of the ETF adoption on the tax employee performance in the Jordanian tax office.

## Literature Review

**Employee Performance:** Globally, employee performance is a well-known and studied construct that received much scholarly attention. Among the scholars of employee’s performance are Sultana *et al.* [20] who sees performance as an achievement of a specified task measured against predetermined standards in terms of accuracy, completeness, cost and speed. It seems that the employee performance is deemed to be the attainment of responsibility in such a way that the performer is cleared from all liabilities stipulated under the contract. Hence, efficiency and effectiveness are the fundamentals of the performance alongside competitiveness and productivity [21]. According to Kanungo [22], the best measure of employee’s performance is the standards of performance set by the organization. Achieving a better performance shows the extent to which employees attained the tasks assigned to them. There are some expectations by every organization from the employees about their performance. Eventually, when they perform up to the required set of standards and meet the organizational expectations, their performance is considered adequate and meets the organizational targets. The employees have been considered to be the most valuable asset of every organization, whether it is a simple or a complex organization [23]. This is because they can make a good reputation and can adversely affect profitability. Employees are responsible for the relevant work assigned to them, as well as necessary customer satisfaction task and ensuring the quality of products and services to render.

**Electronic Tax Filing:** The ETF system can be described as a new channel to pay taxes via an electronic medium such as the internet [24]. According to Lu *et al* [17], ETF is defined as a system in through which individual taxpayers or companies file their taxes via the internet. ETF system has also been defined as a “non-manual tax-filing systems,” which include both the internet and a two-dimensional bar-code to filling systems [25]. ETF systems can be recognized as a general term for electronic filing or electronic lodgment or electronic affirmation of tax returns through the submission of tax form data to a tax authority in a computerized file format via an internet connection [19]. The declaration that it is important to report that adoption of IT related systems such as ETF can be influenced by some antecedent variables such as performance expectancy, effort expectancy, social influence and facilitating condition [26]. Therefore, these antecedents are discussed hereinafter.

**Performance Expectancy:** Performance expectancy can be well-defined as a way of using the system to achieve better job performance [26]. Performance expectancy can also be defined as a degree at which individuals can improve their job performance through the system [26, 27]. The existing literature suggests that technology adoption is an important factor in diffusion and adoption of information technology under performance expectancy [26, 28, 29, 30]. Moreover, a study by AlAwadhi [31] discovered that performance expectancy, peer influence, effort expectancy and facilitating conditions are determinants of service adoption under e-government.

**Effort Expectancy:** Effort expectancy has been defined as “the degree of ease associated with the use of the system” [26]. Venkatesh *et al.* [26] indicated that effort expectancy has a significant influence on the behavioral intention of information technology user. They added that the relationship between behavioral intention and effort expectancy may be moderated by gender, experience and age [26, 30]. Other studies also indicated the possible link between effort expectancy and adoption of e-services alongside other variables [32, 33].

**Social Influence:** Social influence is defined as the point at which the individual recognizes the gains others believe she or he must use the new system [26]. Social influence can also be defined as the degree to which an individual perceives other person's belief about the system to determine if he or she should use the new system [33]. It denotes that the outcome of people's ideas of the view on individuals' use of technology [26, 34]. Social influence is a strong predictor of intention to use an information and communication technology [26, 29, 35]. Numerous studies have specified that social impact has a straight effect on behavioral intention to accept IT usage [26, 36, 37, 38, 39].

**Facilitating Conditions:** Facilitating condition refers to the level to which individuals think that an organizational and technical infrastructure exists to support the use of new information technology [26]. Kraemer *et al.* [15] developed a theoretical model to identify the factors that determine public acceptance of e-government services in Taiwan. The results revealed that ease of use; perceived usefulness; perceived risk; compatibility; trust; self-efficacy; external influences; interpersonal influence; and facilitating condition, are important predictors of citizen acceptance of e-government services. The results

also show strong evidence of the impact of citizen attitude toward using online tax filing and payment system (i.e. attitude toward behavior) on their usage intention. Based on the results of their study, the authors argued that the descending sequence of significant determinants of e-government services adoption be as follows: self-efficacy; trust; interpersonal influence; perceived usefulness; compatibility; facilitating condition; perceived risk; external influence and perceived ease of use. They also suggested that government organizations can set their priority based on the relative significance of these factors.

**Research Framework and Hypotheses Development:** In this study the Unified Theory of Acceptance and Use of Technology (UTAUT) is being proposed as theoretical basis, together with the Task-Technology Fit Theory (TTF Theory) [40] to investigate the antecedent of adopting electronic tax filing (ETF) and its impact on tax employee's performance in Jordan. There could be lots of benefits that can be obtained from UTAUT. Reflecting on the model, the researcher believes that UTAUT is more suitable to large organizations than other models of accepted technology because the design of this model is based on the data collected from employees' environment [26]. Additionally, it could successfully predict the adoption of information technology in approximately 70 percent of the cases, compared to 40 percent by other user adoption models [26]. Hence, this predictive power of UTAUT has made it more acceptable by many researchers compared to other models. Furthermore, the constructs of UTAUT were generated from eight models [26].

Moreover, the existing measurements used to measure the constructs can be adapted to come up with modified measurements that can be applied to the ETF adoption. Last but not least, this model covers almost the main factors that influence the user acceptance of technology such as technology-related and social factors [26]. The proposed model of this study, therefore, includes influence performance expectancy, effort expectancy, social influence and facilitating condition on ETF adoption and its eventual impact on employee performance as the dependent variable. It is worth noting that the main independent variables that predict ETF adoption were adopted from Venkatesh *et al.* [26], while the linkage of ETF to employees' performance is supported by Task-Technology Fit Theory [40] as illustrated in Figure 1.

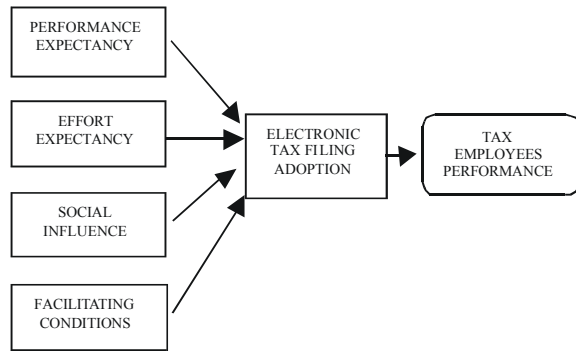


Fig. 1: Proposed framework

In line with the above framework, literature and supporting theories the following hypotheses were developed. This is in congruent to the earlier studies that display that performance expectancy is one of the main factors in acceptance and use of technology [26, 32, 38, 41, 42]. However, Carter *et al.* [43] found that three out of four UTAUT's constructs that encompass facilitating conditions, performance expectancy and social influence were significant variables that influence the Americans intention to use the e-filing. UTAUT also suggests that performance expectancy is the strongest predictor of an individual's behavioral intention to use an information system/technology and is significant at all points of measurement for mandatory and voluntary settings [26]. While theory and literature highlight that performance expectancy predicts intention to adopt ETF, the evidence did not indicate that such relationship had been explored in Jordanian context. Thus, the following hypothesis is formulated.

*H1:* There is a positive relationship between performance expectancy and ETF adoption in Jordan.

In most studies conducted using UTAUT model, effort expectancy was founded to positively influence behavioral intention to use information system platform. Previous studies indicated that effort expectancy has a significant influence on the user behavioral intention towards the usage of information technology [26, 30]. Despite this theoretical insight, the available evidence did not show that the influence of effort expectancy on ETF adoption in Jordan had been investigated. Hence, the following hypothesis is formulated.

*H2:* There is a positive relationship between effort expectancy and ETF adoption in Jordan.

Extant literature revealed that social influence is an important predictor of intention to adopt information technology. A study by Tung and Rieck [44] found that perceived benefit, external pressure and social influence to be positively related to firms' decision to adopt e-government services. They also found that e-government adoption is positively associated with perceived benefits, external pressure and social influence [44]. In fact, it was stressed that social influence is a strong predictor of behavioral intention to use an information and communication technology [26, 30, 45]. Additionally, evidence also revealed a significant relationship between the social influence construct and behavioral intention [27]. However, evidence in the Jordanian context on the influence of social influence on ETF adoption lacks in the extant literature. Consequently, the following hypothesis is formulated.

*H3:* There is a positive relationship between social influences and ETF adoption in Jordan.

Facilitating condition is an important construct in technology adoption models including UTAUT [26]. Carter *et al.* [43] discovered that three out of four UTAUT's constructs that cover facilitating conditions, performance expectancy and social influence were significant factors that affect the Americans' intention to use the e-filing. Wang and Shih [41] found a positive relationship between facilitating conditions and actual usage of technology. While available evidence depicts the influence of facilitating condition of IT adopting, the evidence is not readily available on the influence of facilitating condition on ETF adoption in Jordan. Thus, the following hypothesis is formulated.

*H4:* There is a positive relationship between facilitating conditions and ETF adoption in Jordan.

Goodhue [40] in their TTF Theory agree that the linkage between information technology and individual performance has been an undergoing area of research. Their theory proposed that information technology can have a positive impact on the individual performance [40]. Further confirmation can be supported by the assertion made by DeLone [46] that both actual technology usage and attitude towards it have positive impacts on individual performance. Despite this theoretical insight, the evidence is lacking not only in Jordan but also globally on the linkage between ETF adoption and employee's performance. Therefore, to eliminate this research gap, the following hypothesis is formulated.

H5: There is a positive relationship between ETF adoption and tax employee's performance in Jordan.

### CONCLUSION

This paper provides a theoretical basis on the determinants of ETF adoption, through the UTAUT framework and its subsequent impact on tax employees' performance – through the TTF theory - in the Jordanian tax office. The major reason for using UTAUT as underpinning theory is that it is comprehensive in nature and recently more acceptable among researchers compared to other technology acceptance models [26]. The UTAUT framework has some key advantages, among them is that the theory is suitable in the prediction acceptability of information system among employees in large organizations [26, 33] like the Jordanian Tax Office. Therefore, this study proposed the UTAUT framework by integrating it with TTF Theory to examine the impact of ETF adoption on tax employees' performance in Jordan.

Currently, the authors are conducting a study and the result is expected to provide some evidence in terms of the impact of ETF adoption on tax employees' performance, adding to existing literature which concentrated on the impact of ETF adoption on taxpayers and tax professional perspectives. The current study focuses on tax officers' in the Jordanian Tax Authority. Data will be collected from the employees in all the Jordanian Tax Offices. Additionally, the study offer contribution to the literature for the fact that relatively few studies were conducted in the accounting field using UTAUT variables and also on ETF adoption in the Middle East region, especially in the context of Jordan. Therefore, this study can be considered the first that proposed the assessment of ETF adoption in Tax offices within the Jordanian context. The information provided might assist policymakers in formulating strategies to encourage the effective use of ETF among the Jordanian Tax Authority. It can be argued that this study may support the Tax Authority through assisting the employees to improve themselves and overcome the weaknesses in their performance in using ETF.

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