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Factors Affecting the Adoption of Financial Information Systems Based on UTAUT Model

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Abstract

The main aim of this paper is to study the factors that could effect the adoption of financial information systems by small and medium-sized enterprises in Jordan based on the unified theory of acceptance and use of technology (UTAUT). This study is quantitative; a questionnaire was used to collect the data. The sample size for the study is 322 small and medium-sized enterprises in Jordan. The findings of the study indicated that performance expectancy, effort expectancy, social influence and facilitating conditions effect significantly on the adoption of financial information system by small and medium-sized enterprises.

Key words

UTAUT model, financial information system

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1. Introduction

FIS is a financial information system that is a software based system in order to make entries and monitor the financial information or data. The efficiency of the system is to produce reports and indications to facilitate managers and management to run their operations and activities efficiently. This feature is helpful in order to make financial analysis and provide adequate information that enables the management to take effective decision. The purpose of this system is to attain the organizational efficiency by utilizing less resource of finance and ensure consistency in the financial system of the organization. The system provide the adequate outputs that include the reports, forecasting, budgeting, working capital reports, cash flow, and other important reports for the purpose of analysis and evaluation. The financial information analysis can be done through the financial statement analysis such as ratio analysis, trend forecasting and modelling of financial planning (Anders Rom and Carsten Rohde, 2007).

As far as the financial information system study is concern it is associated with the collaboration of computer science, organizational theory and cognitive psychology. The benefit of this study with the different domain areas will be effective in order to assess organizational ability of technical, employees and operational significance adequately. Financial information system is having the perspective from large to small scale towards the information system (Bimberg and Shields, 1989; Gelinas *et al*., 2005). It is evident that management financial system is also sophisticated system that delivers the knowledge about the internal and external environment to the management (Bouwens and Abernethy, 2000). The reports that are used are: performance evaluation, centralized information system that includes management information system and executive information system, financial planning, budgeting and trend forecasting to enable the management to take financial decision adequately.

The current study aim to examine the factors affecting the adoption of financial information systems based on UTAUT model. The effect of the variables (performance expectancy, effort expectancy, social influence and facilitating conditions) present in the UTAUT model is assessed on the behavioural intention to adopt financial information system.

2. Literature review

The main purpose of using the information system by the organization is to increase the operations efficiency (Mostafa and Eneizan, 2018). Organizational information system includes the different features that are: to gather, process, accumulate segregate information that help in taking decision, collaboration and develop controls for the organization (Kenneth and Jane, 2000). Information system is the business solution for the management and use of technology increase the transparency and efficiency in the business. Employees and managers should be having similar perspective about the use of technology then it will be possible for the organization to develop strategies that are effective for the organization (Benson, 2010). As far as the information system functions is concern it undertakes the processing, using for the email purpose and to develop schedules in order to facilitate more effective management and communication in the organization (Kenneth and Jane, 2000). The information system also performs different jobs such as; segregation of data or information, recording of accounting transactions and used also for the message delivering. The main role of the information system is to collect, assimilate, processing, and storage of information for the organizational purposes (Rainer and Turban, 2009). The financial functions in the business are usually the deposit of cash and withdrawal in the financial transaction (Odeh *et al*., 2018; Haddad *et al*., 2019). Currently online information system is highly effective like generating the purchasing invoice at any location by using internet (Teodor *et al.*, 2011).

Information system also performs the task of planning for the purpose of future development of the organization, management decision making, using the technology to store the information about the business and employees as well (Haag and Cummings, 2009; Eneizan *et al.,* 2018; Eneizan and Wahab, 2016). The best example can be provided in that case as the manager can take the help from the system through calculating the number of units to be sold in order to generate the required profit for the organization. It provides right and accurate information to the management in order to make effective decisions. That includes the business intelligence to highlight the organizational issues that are in the system, operations and structural changes that are required to be fixed adequately (Rainer and Turban, 2009).

In the organization Decision Support System enables the managers to take decision in perspective of pricing to be changed or remain the same; profit required to be increased or change in the strategies accordingly. Organization uses the internal and external information to use the data accordingly for the development of strategies and plans and provides best financial services to the society (Alshannag *et al*., 2016, 2017). Information system enhances the scope of the experts by including more effective and useful information in the required domain (Rainer and Turban, 2009). The benefit of the system for the management to take decision and employees can use the information in order to get solution of their said issues (Eric and Michael, 2012).

It is evident that change in the technology highly impact and increases the risk and opportunity for the management to confront on the daily basis that change the dimension of the business requirement (Brigham and Houston, 2004; Alshare *et al*., 2019). The role of financial information system is to analyze and assimilate the financial data that is helpful in planning and forecasting the decision making of the organization. Information system of the organization is eying the future at least for five years on the profit projection. Financial information system do not use along it have the collaboration with the decision support system that can help the organization to take decision and attain objectives (Arai *et al.,* 2013). The efficiency of the financial information system is to utilize the minimum resource of the organization in order to produce efficiency. In the current market; majority of the organization used the financial information system as the financial projections in order to develop feasibility that can help in increasing the organizational financial system. A comprehensive financial information system adequately provides the financial and non-financial system to the organization. It is evident for the purpose of the using the financial

information system they are required to have the proper skilled employees that serves the organizational objectives clearly (Huysman *et al.*, 2009).

It is a fact that financial management is highly necessary features for every type of business that includes banks, retail business and industries as well (Brigham and Houston, 2004). In the current market; many organizations are aware the fact that financial information system along with the management information system compliment the organizational progress and help them in forecasting by assessing the market trends and their challenges adequately. Financial information system is a huge investment but it provide ultimate benefits to the organization in the long run that increases the transparency in the financial statement and simultaneously development of financial statement as well.

3. Methodology of Research

3.1. Research Model and Hypotheses Development

Researcher has selected the unified theory of acceptance and the use of technology (UTAUT) acceptance model; the reason is that researchers are using this model in the given scenario or the research problem. The model suggests technology adoption behaviour is being affected by four variables that are: Performance Expectancy, Social Influence, Facilitating Conditions and Effort Expectancy.

The model of UTAUT was established the research named Venkatesh *et al.* (2003) in order to assess the user adoption of the technology. The model UTAUT includes eight theories that are TAM, IDT, TRA, Motivational theory, TPB, Combined model of TAM and TPB, the model of PC utilization and Social Cognitive Theory (SCT). The findings of the study suggested that; effort expectancy, performance expectancy, social influence and facilitating conditions are the main feature that enables the researcher to undertake the adoption (Venkatesh *et al*., 2003).

Performance expectancy is having the similar feature such as the perceived usefulness and having advantage of using the technology. Effort expectancy is related with the ease of use. Social influence is related with the subjective norms. The study suggested once the performance expectancy is met then the user expectation of adopting the technology will high (Bhattacharjee, 2001). It is suggested that the performance expectancy is having high value to impact upon the user contentment. Perceived usefulness is also impacting the user satisfaction as well (Bhattacherjee, 2001; Chen, 2011).

H1: Performance expectance effect significantly on the behavior intention to adopt financial information system

Effort expectancy delivers the user reluctance to use the technology or information system. It is required that user should put effort towards using the financial information system it will be effective and increase the satisfaction level adequately (Chen, 2011).

H2: Effort Expectancy effect significantly on the behavior intention to adopt financial information system

Social influence associated the norms and behaviour of the society that are linked with the user intention (Zhou, 2011). As far as the social influence theory users are also influenced the other factors in their circle (Bagozzi and Lee, 2002). It is evident that users are being suggested by their family and friend about the use of information system they are following their instruction more effectively.

H3: Social Influence effect significantly on the behavior intention to adopt financial information system

Facilitating conditions suggest that user is more equipped with the knowledge and information regarding the financial information system. It is important that users are required to equip with the required information in order to use the financial information system that shows the adoption of technology is evident. It is also possible if the user is not intending towards the knowledge or acquiring the information to use the financial system it will be a loss for them to undertake the benefits of the system (Zhou, 2011).

H4: Facilitating Conditions effect significantly on the behavior intention to adopt financial information system

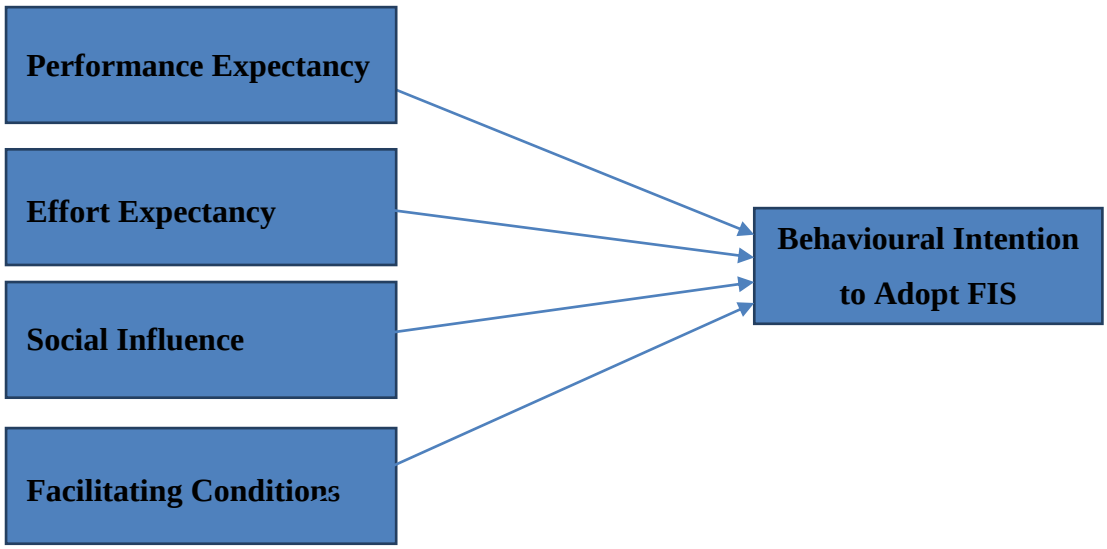

Figure 1. Conceptual Framework

3.2. Research Design

This study has used the quantitative approach to conduct the study (Robson, 2011); where researcher has developed the questionnaire in order to get responses from the selected sample size or respondents from different SMEs.

3.3. Research Instrument

Researcher has used the questionnaire in order to collect the primary data that used for the analysis and different statistical tools are applied to get the results or statistics about the study (Sekran and Bougie, 2013). The questionnaire contained questions regarding the demographic information of the respondents and also the statements regarding the construct presented in the conceptual framework of the study.

3.4. Population, Sample Technique and Sample Size

The target population of the study is all SMEs in Jordan. The sample size for the study is 322 SMEs in Jordan. The sample selected on the basis of simple random sampling technique. For each SMEs one questionnaire is filled by the Head of Information Technology or Head of Finance Department.

3.5. Plan of Analysis

Analysis of data includes presentation of data and interpretation of data. The analysis contains descriptive analysis as well as the analysis regarding the hypothesis testing such as regression and correlation analysis. Researcher has used the SPSS for the purpose of analysing the data and presented the results in the form of tables.

4. Data Analysis and Findings

The data analysis and findings are presented below. The descriptive statistics of demographic variables are presented below.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Firm_Size	322	5.00	20.00	12.7733	4.61963
Firm_Age	322	1.00	33.00	10.1615	8.89776
Valid N (listwise)	322				

The above table of descriptive statistics shows the minimum, maximum, average and standard deviation of two demographic variables of the SMEs included in the sample. The variables are Firm Size and

Firm Age. Firm size is measured on the basis of number of employees working in the organization while the firm age is represented by the number of years firm has been in existence.

The results show that the minimum number employees working in a firm is 5 while 20 employees are highest number working in a firm. The average number of employees is about 13 employees per firm with the standard deviation of around 5. The firm age show that we have the firm in our samples as young as 1 year and as old as 33 years. The average firm age for the sample is 10 years while standard deviation is around 9 showing high variation in sample data.

4.1. Correlation

The above table of correlations shows that performance expectancy, effort expectancy and facilitating conditions are significantly correlated with behavioural intention to adopt financial information system. Moreover inter-construct correlation between the independent variable is not as high as it may exceed the upper limit of 0.90 which is the indication of high probability of multi-collinearity.

Table 2. Correlation

		Behavioral Intention	Performance Expectancy	Effort Expectancy	Facilitating Conditions	Social Influence
Behavioral Intention	Pearson Correlation	1	.481**	.294**	.129*	.047
	Sig. (2-tailed)		.000	.000	.020	.397
	N	322	322	322	322	322
Performance Expectancy	Pearson Correlation	.481**	1	.199**	-.110*	.018
	Sig. (2-tailed)	.000		.000	.048	.745
	N	322	322	322	322	322
Effort Expectancy	Pearson Correlation	.294**	.199**	1	-.045	-.371**
	Sig. (2-tailed)	.000	.000		.425	.000
	N	322	322	322	322	322
Facilitating Conditions	Pearson Correlation	.129*	-.110*	-.045	1	-.132*
	Sig. (2-tailed)	.020	.048	.425		.018
	N	322	322	322	322	322
Social Influence	Pearson Correlation	.047	.018	-.371**	-.132*	1
	Sig. (2-tailed)	.397	.745	.000	.018	
	N	322	322	322	322	322

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

4.2. Regression

The regression results are presented in the tables below.

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.577a	.332	.324	.58550

a. Predictors: (Constant), SIAvG, PEAvG, FCAvG, EEAvG

The above table of model summary shows that the value of R-Square is 0.332 which shows that the variance explained by the model is around 33% which is bit low however acceptable. In other words it can be said that 33% of the model is interpreted by the four variables presented in the model.

Table 4. ANOVA

ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.097	4	13.524	39.452	.000b
	Residual	108.669	317	.343		
	Total	162.766	321			

a. Dependent Variable: BIAvG
b. Predictors: (Constant), SIAvG, PEAvG, FCAvG, EEAvG

The above table of ANOVA shows that the significant of F is 0.000 which is less than 0.05 showing that the model is significant and overall model is a good fit.

Table 5. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.820	.269		3.053	.002
	Performance Expectancy	.376	.040	.447	9.448	.000
	Effort Expectancy	.191	.035	.278	5.464	.000
	Facilitating Conditions	.140	.031	.213	4.569	.000
	Social Influence	.133	.039	.170	3.392	.001

a. Dependent Variable: Behavioral Intention

The coefficient table shows the relationship of independent variables with dependent variables. Hence we can see how performance expectancy, effort expectancy, facilitating conditions and social influence relate to behavioral intention to adopt financial information system. The results show that all four variables are significantly and positively related to behavioral intention. Hence all the four hypotheses which have been shown above are significant and supported. The summary of the hypotheses is presented in the following table.

Table 6. Summary of hypothesis

S.NO	Hypothesis	P-value	Result
1	H1: Performance expectance effect significantly on the behavior intention to adopt financial information system	.000	Supported
2	H2: Effort expectance effect significantly on the behavior intention to adopt financial information system	.000	Supported
3	H1: Facilitating condition significantly on the behavior intention to adopt financial information system	.000	Supported
4	H1: Social influence effect significantly on the behavior intention to adopt financial information system	.001	Supported

4.3. Discussions

The current study aim to examine the factors affecting the adoption of financial information systems based on UTAUT model. The effect of the variables (performance expectancy, effort expectancy, social influence and facilitating conditions) present in the UTAUT model is assessed on the behavioral intention to adopt financial information system.

The model of UTAUT was established by the researcher named Venkatesh *et al*., (2003) in order to assess the user adoption of the technology. The findings of the study suggested that; effort expectancy, performance expectancy, social influence and facilitating conditions are the main feature that enables the researcher to undertake the adoption (Venkatesh *et al*., 2003).

Performance expectancy is having the similar feature such as the perceived usefulness and having advantage of using the technology. Effort expectancy is related with the ease of use. Social influence is related with the subjective norms. The study suggested once the performance expectancy is met then the user expectation of adopting the technology will high (Bhattacharjee, 2001). The current study suggests that there is significant and positive impact of performance expectancy on behavioral intention adopting financial information system. Hence the hypothesis 1 found to be supported and aligned with the literature discussed above. The result of the hypotheses showed that the performance expectancy is significantly

positively related to behavioral intention to adopt financial information system. The p-value for the relationship is 0.000 which is less than 0.05 with the t-value of 9.44 > 2 showing the significant relationship.

Effort expectancy delivers the user reluctance to use the technology or information system (Chen, 2011). Moreover the finding of Chong (2013), Venkatesh *et al.* (2012) and Davis *et al.* (1989) provides the evidence that effort expectancy and behavioral intention of technology adoption are significantly related. The results the current study are aligned with the researches discussed above and the results showed the positive and significant impact of effort expectancy on behavioral intention to adopt financial information system. The result of the hypotheses showed that the effort expectancy is significantly positively related to behavioral intention to adopt financial information system. The p-value for the relationship is 0.000 which is less than 0.05 with the t-value of 5.46 > 2 showing the significant relationship.

Facilitating conditions has been proven to be statistically significantly related to behavioral intention to adopt financial information system. The result is consistent with existing work of Chong (2013) and Venkatesh *et al.* (2012). The result implies that finance professional regard support and help as import factors for adopting a financial information system. The results of the current study show that effort expectancy significantly impact the behavioural intention to adopt financial information system with the p-value 0.00 which less than 0.05 and the t-value 4.56 which is above 2.

Social influence associated the norms and behaviour of the society that are linked with the user intention (Zhou, 2011). As far as the social influence theory users are also influenced the other factors in their circle (Bagozzi and Lee, 2002). It is evident that users are being suggested by their family and friend about the use of information system they are following their instruction more effectively. In line with the above studies the impact of social influence is positive and significant on behavioural intention. The results of the current study show that effort expectancy significantly impact the behavioural intention to adopt financial information system with the p-value 0.01 which less than 0.05 and the t-value 3.392 which is above 2.

5. Conclusions

The research was aimed to understand the impact of performance expectancy, effort expectancy, social influence and facilitating condition on behavioural intention to adopt financial information system. The results suggest the significant and positive influence of the above mentioned factors on behavioural intention to adopt financial information system. The research objective was met by examining the hypothetical relationships using the regression technique. The regression results found the positive and significant impact of effort expectancy, performance expectancy, facilitating conditions and social influence on behavioural intention to adopt financial information system. The UTAUT theory was tested in with regards to testing the factors affecting behavioural intention to adopt FIS in Jordanian SMEs Sector. The study contributes in a sense that it confirms the influence of the UTAUT factors in Jordanian SMEs for adopting FIS.

6. Limitations and Future Research

The study is limited in a sense that it includes the UTAUT factors with limited model. The full model is not adopted moreover the scope of the study is limited to SMEs. The future research can be done in the difference contexts to represent different cultures, and economic characteristics so that the results can be compared and strong theoretical and practical implications can be suggested. Moreover the study can be extended to big organizations that are either publically held or privately. This will add in-depth knowledge in the field of research.

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