



FACTORS AFFECTING UNIVERSITY STUDENTS' INTENTION TO USE FACEBOOK: A CASE STUDY OF ZARQA UNIVERSITY

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**This research is funded by deanship scientific research and graduate studies in Zarqa University, Jordan*

ABSTRACT

The present study attempts to determine the success factors in improving students' intention to use Facebook in Jordanian universities in general and in particular in Zarqa University with the help of technology acceptance model (TAM). The research model comprises of four independent variables namely perceived usefulness, perceived ease of use, family influence, perceived trust and one dependent variable namely students' intention to use Facebook. In the process of conducting the main study, 600 questionnaires were distributed to among Zarqa University students. Out of this number, 70 were undelivered, and 36 questionnaires were incomplete (missing responses). The researcher obtained the achieved response rate a total of 494 responses were usable for subsequent analysis, giving a response rate of 82 %. The questionnaire is divided into four parts: part (1) demographic variables (12 items); part (2) perceived ease of use and perceived usefulness by (10 items) adopted from Davis, (1989); family influence by (5 items) adopted from Ajzen and Fishbein (1975); perceived trust by (6 items) adopted from Daud (2011), and part (3) attitude by (5 items) adopted from Shih & Fang (2004), Finally, part (4), student's intention by (5 items) adopted from Al Muala(2011). Furthermore, this study used Structural Equation Modeling (SEM) by using Amos program instead of multiple regression because SEM can give more superior empirical results (Hair et al., 2006). The findings of the study show a significant and positive link between variables (perceived ease of use, perceived trust, and family influence) and attitude. Additionally, there a significant and positive link between variables (perceived usefulness and attitude) and intention to use Facebook. And one insignificant impact between perceived usefulness and attitude to use Facebook . For mediating effect of perceived usefulness was not mediates.

KEY WORDS: Facebook, Intention, TAM, Jordan.

1. INTRODUCTION

Internet, in the current world, is considered as one of networking media and a way to transact with consumers on a global level (AL Ziadat et al., 2013). Customers' intention considered as an important factor to understanding antecedents of customer's attitude. Pedersen and Ling (2003) asserted that the behavioral

intention models in information systems research may be modified and extended when they are applied to the study of adoption of Internet services. The family factors' influence on students regarding to using facebook service in Jordan (AL MAJALI, 2010), could be the major factor makes the Facebook services very low. Moreover, lack of

past studies to examine the effect of family factors such as family and mass media add to this problem. This study includes these antecedents to be examined in the context of Jordanian settings such as universities.

Social media has taken the millennial generation by storm. In 2009, approximately 93% of young adults' ages 18-29 reported going online, with 72% them active on at least one social media site [Lenhart et al., 2010]. The most popular social media site is Facebook, where 71% of young adults online have posted a profile. Given its widespread distribution and its ability to facilitate communication, social media has been proposed as a way to increase student participation, collaboration, information sharing, and critical thinking (Mason, 2006; Selwyn and Screw, 2007; Aijan and Hartshorne, 2008).

Several scholars have examined the successful use of Facebook in academic settings. Ractham, Kaewkitipong and Firpo (2012) describe the use of Facebook to enhance participation and foster a positive learning environment in an introductory management information systems course for Thai undergraduates. Cheung and Vogel (2011) studied how Facebook can enhance communication between teachers and students. On the other hand, other researchers have concluded that students use Web 2.0 largely for social reasons, and are reluctant to share this "personal" space with instructors

Furthermore, this study is having an underpinning theory by the technology acceptance (TAM). Students' use of Facebook is mainly instrumental in lifestyle, if we exclude the practice of meeting relatives and old friends, which is not relevant in most students' everyday life. Using Facebook by students are mainly aimed at organizing off-line meetings with friends, exchanging few quick information or, when face-to-face encounters are not possible, replacing other forms of socialization (such as IM, texts, phone calls). Bicocea undergraduate students mainly fit into the "genre of participation" defined as "hanging-out" by Ito et al (2010). Regardless of the widespread use of Internet among students' universities in Jordan, according to Facebook users, it is still notably low.

2. LITERATURE REVIEW

Intention: Behavioral intention is an important factor in understanding behavioral tendency before a particular behavior is adopted. Behavioral intention refers to the expression induced during the decision process; this expression often tells whether certain behavior will be adopted or not. Behavioral intention is a necessary process in any form of behavior expression; it is a decision made

before an actual behavior is adopted (Fishbein & Ajzen, 1975). According to Fishbein and Ajzen (1975) define the term behavioral intention as the perception of an individual towards performance of an individual of a specific behavior. It is the "person's location on a subjective probability dimension involving a relation between himself and some action intention is predicted by attitude and subjective norm and PBC in the TPB" (Fishbein & Ajzen, 1975, p. 288).

Furthermore, Behavioral intention is a very important factor to assess customers' adoption of internet banking service, and it is considered to be a relatively accurate predictor of actual internet banking service adoption (Fishbein & Ajzen, 1980). According to TPB theory (TPB), behavioral intention is predicted by three main factors which are attitude, subjective norms, and perceived behavioral control (Ajzen, 1991). In addition, behavior intention is defined as: "The amount of effort one is willing to exert to attain a goal" (Ajzen, 1991).

In other words, behavior intention measures a person's relative strength of intention to perform a behavior. Since this factor is one of the most important factors that determine the final actual usage and the role it plays in defining or modifying the relationship between the three behavioral constructs (attitude, subjective norms and perceived behavioral control) and the actual usage, researchers; such as Fishbein and Ajzen, (1975); Davis (1989); Taylor and Todd (1995) and others, were focused on studying this factor as main antecedents of actual behavior. Therefore behavior intention is then defined by the researcher in this study as: (An individual's readiness to adopt internet banking services in the near future).

Attitude: attitude defined as "an individual's positive or negative feelings (evaluative affect) about performing the target behavior" (Fishbein & Ajzen 1975, p. 216). Attitude toward a behavior is determined by his or her salient beliefs about consequences of performing the behavior and the evaluation of those consequences.

Students' attitudes to use Facebook are described as the psychological state of the student (Li & Zang, 2002). The students' attitude to use Facebook is considered as the primary factor affecting students' intention to use Facebook (Michael, 1998). The present study's model exhibits the relationship between independent variables comprising perceived usefulness, perceived ease of use, family influence, and perceived enjoyment, and dependent variable comprising students' intention to use Facebook. As depicted in Figure 1 below. Therefore, the present study postulates the following positive hypothesis;

H₁: Student's Attitude has significant and positive influence on students' intention to use Facebook.

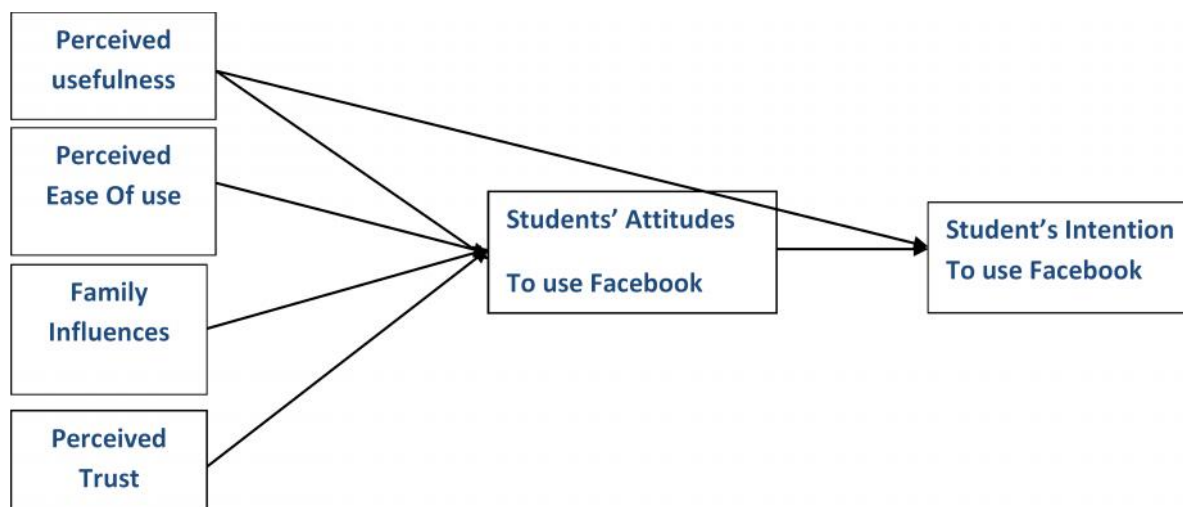


Figure 1: Model of Study

Perceived usefulness is described as the prerequisite of mass market technology acceptance which hinges on the expectations of consumers regarding the way the use of technology can pave the way for improved and simplified lives (Peterson et al. 1997). Perceived benefits refer to advantageous outcome that stems from attributes and these benefits may be physiological, psychological or material in nature (Gutman, 1982). In the context of online shopping, consumer perceived benefits are described as the aggregate advantages or satisfactions of online shopping that meet the needs or wants of consumers (Shwu-Ing, 2003). As such, extrinsic advantages are features of wide array of product selection, competitive pricing, easy access to information and low search costs (Delafrooz & Khatibi, 2009). Past studies revealed that the strongest linear relationship lies between attitude toward online shopping and perceived benefits of online shopping (Delafrooz & Khatibi, 2009). Therefore, the present study postulates the following positive hypothesis;

H₂: Perceived usefulness has significant and positive influence on students' attitude to use Facebook.

H₃: Perceived usefulness has significant and positive influence on students' intention to use Facebook.

Perceived Ease of use is defined as the level to which an individual is convinced that using a certain system would be free from effort. This stems from the definition of ease which is the freedom from difficulty or significant effort. Effort is described as a finite resource that an individual can exert to the many activities for which he or

she is responsible to conduct (Radner and Rothschild, 1975). Ease of use encapsulates the features of time saving, site design, site navigation, information architecture, site speed, and payment process, accessibility and search facilities (Constantinides, 2004; Wolfinbarger & Gilly, 2001; Szymanski & Hise, 2000). In Delfrooz & Khatibi's (2009) study, ease of use was revealed to significantly and positively relate with attitude toward online shopping and thus in the present study, a positive linkage is also hypothesized;

H₄: Perceived ease of use has significant and positive influence on students' attitude toward Facebook.

Family Influences:-

The family influence of the important factors in explaining the attitude and intention of use of the services that provide to them. In addition, family influence consider one of influence factors on customer' intention to use Facebook. One studies by Vandenbosch and Huff (1997) pointed out that perceptions of technology are family constructed to some extent. Family influence is exerted when a person values others' belief that he or she should use a new information system (Venkatesh et al., 2003). Prior studies note that family influence is a significant factor in an individual's intention to use new technology (Thompson et al., 1991; Venkatesh and Davis, 2000). Family influence was effect behavioral intention to use through Perceived usefulness. Moreover, TAM has involved over time. TAM2 extended the original model to explain impact of family influence on customer's attitude and usage intentions.

As suggested in TAM2, subjective norm, one of the family influence variables, refers to the perceived family pressure to perform or not to perform the behavior (Ajzen, 1991). It seems important to determine how family influences affect the commitment of the user toward use of the information system for understanding, explaining, and predicting system usage and acceptance behavior (Malhotra & Galletta, 1999). This kind of inconsistency results may be resolved through the structural equation modeling (SEM), which indicates spurious effects and indirect effects as well as direct effects (AL Muala, 2012).

Therefore, the present study postulates the following positive hypothesis;

H₅ : Family influence has significant and positive influence on students' attitude to use Facebook.

Perceived trust:-

Trust is defined as, *"The perceived credibility and benevolence of a target of trust"* (Doney, Cannon & Mullen, 1998). Trust is an important factor in many family activities, involving uncertainty and dependency (Pavlou and Fygenon, 2006). Trust in general, is central to any economic activity, whether conducted in a retail outlet in the actual offline world or in excess of the internet, by means of a web site. Furthermore, trust is still more important in an online situation (Gefen, Karahanna & Straub, 2003; Gefen & Straub, 2004). One main reason for the importance of trust in e-commerce activities is the fact that in a virtual setting the degree of uncertainty of economic transactions is higher than in traditional settings (Rotchanakitumnuai & Speece, 2007). Internet-based commercial transactions can carry about a number of risks that are either caused by the understood uncertainty of using open technological infrastructures for exchange of information (system-dependent uncertainty) or it can be explained by the behavior of actors who are concerned in the online transaction (transaction-specific uncertainty) (Grabner-Kräuter & Faullant, 2008).

In fact, several previous studies have tackled the importance of the trust concept in the field of the new technology services adoption; given that internet banking service is included within these technology services. For example, Suh and Han (2002) discussed the influence of the trust factor upon the bank clients' attitudes towards the internet banking service adoption and found out that the trust factor significantly and positively affects those clients' attitudes towards the internet banking service adoption in Korea. Shih (2006) pointed out to the significance of the trust factor and considered it as one of the main factors influencing the attitudes of the internet

banking service users. The study further indicated that the relationship between the trust and those users' attitudes was influential and positive. As for Nor and Pearson (2007) in Malaysia, it was found that the relationship between the trust and the attitudes of a number of college students towards the internet banking service adoption was positive. Thus, in the present study, a positive linkage is also hypothesized;

H₆: Perceived trust has significant and positive influence on students' attitude toward Facebook.

Meditating Effect of Perceived Usefulness:-

Baron and Kenny (1986, p. 1) define the mediator as "the mediating function of a third variable, which represents the generative mechanism through which the focal independent variable is able to influence the dependent variable of interest". In this study in order to test for mediation, structural equation models (SEM) using AMOS 20.0 were developed and a comparison done between indirect effects and direct effects.

There are limited previous studies that attempted to examine the mediating effect of perceived usefulness in universities of Jordanian. A past studies asserted that there is a fully mediates of perceived usefulness in the relationship between perceived ease of use and behavioral intent (Brown et al. 2002; Thi and Huynh, 2014). While, some of previous studies found not mediate (Venkatesh and Davis, 1996). Thus, this study examines the mediating effect of perceived usefulness in the relationship between students' attitude and students' intention to use Facebook.

Therefore, the present study postulates the following positive hypothesis;

H₇: Perceived usefulness mediate the relationship between students' attitude to use Facebook and students' intention to use Facebook.

3. METHODOLOGY

This study used quantitative research design to investigate the predictors of students' intention to use Facebook in Zarqa University. The population of this study consists of student' in the Zarqa University in Amman. This study selected students due to some reasons. Firstly, it has been used in past studies (Odeh, 2007; Park, 2009; Mersha, 2013). Secondly, the students can use the correct information regarding the model such as TAM model, perceived enjoyment and intention to use Facebook. Thirdly, students inside Jordanian universities have fresh

memories according to their experiences and reasons of students' intention to use Facebook. A systematic random sample was used in which 300 respondents were identified from 3 colleges in the Zarqa University. The questionnaire is divided into four parts: part (1) demographic variables (12 items); part (2) perceived usefulness by (6 items) adopted from Davis, (1989); and perceived ease of use (4 items) adopted from Davis, (1989); family influence by (5 items) adopted from Ajzen and Fishbein (1975); perceived trust by (6 items) adopted from Daud (2011), and part (3) attitude by (5 items) adopted from Shih & Fang (2004), Finally, part (4), student's intention by (5 items) adopted from Al Mualala(2011). Furthermore, this study used Structural Equation Modeling (SEM) by using Amos program instead of multiple regression because SEM can give more superior empirical results (Hair et al., 2006). All variables were measured using five-point Likert scales from (1) Strongly disagree, (2) Disagree, (3) Undecided, (4) Agree, (5) Strongly Agree

4. RESULTS

Demographic Profile of the Respondents:-

The respondents' ages ranged from 20 to more than 50 years old. There are more male respondents

(33.2%) compared to female (66.8%). The majority was Arab (86.6%) while non Arab (13.4%). for duration of using Facebook most of students were less than one year (42.3%). Finally, the majority of knowing Facebook by friends (23.1%).

Reliability and Normality:-

This study consists of four exogenous (perceived usefulness, perceived ease of use, family influences, and perceived trust), and mediating effect of students' attitudes to use Facebook and one endogenous variable (student's intention to use Facebook) (Table 1). Each construct shows Cronbach alpha value of acceptable values of above 0.60 (Nunnally, 1970). Therefore, reliability values for all constructs are range from .60 to .87. This indicates that all constructs have acceptable internal consistency. In addition, 14 items remaining after confirmatory factor analysis CFA. The second test is the composite reliability of each measure (see Table 1). This was assessed using Nunnally (1970) guideline for assessing reliability coefficients. Composite reliability developed by Werts et al (1974), measures the reliability of a construct in the measurement model.

Table 1. Descriptive Statistic and Reliability Results (N= 494)

Variable Name	Original Items	Min	Max	Total Mean	Standard Deviation	Items after CFA	Cronbach's Alpha
Perceived usefulness	6	4	7	5.92	.791	3	.84
Perceived ease of use	4	4	7	6.19	.617	2	.82
Family Influences	5	4	6	4.90	.797	2	.75
Perceived Trust	6	4	7	5.69	.719	2	.63
Students' Attitudes	5	5	7	6.09	.604	2	.60
Students' Intention	5	4	7	6.05	.751	3	.87
Total items	31					14	

Confirmatory Factor Analysis (CFA)

Results:-

Table 2 shows the confirmatory factor analysis (CFA) results, which illustrates factor loadings of all observed variables or items are adequate ranging from 0.47 to 0.88. In this study, the "cut-off" point chosen for

significant loading is 0.40, the minimum level required for a sample size of 150 and above as suggested by (Hair et al. 2006, p 128). This indicates that all the constructs conform to the construct validity test.

Table 2. Final CFA results of construct variables

Construct	Code	Factor Loading
Perceived usefulness	PU1	.80
	PU2	.82
	PU3	.77
Perceived ease of use	PEU1	.72
	PEU3	.81
Family Influences	FM1	.75
	FM2	.80
Perceived Trust	TR5	.80
	TR6	.57
Students' Attitudes	ATT4	.62
	ATT5	.47
Students' Intention	INTT3	.76
	INTT4	.86
	INTT5	.88

Goodness of Fit Indices:-

Confirmatory factor analysis was conducted for every construct and measurement models. Bagozzi and Yi (1988) point out that the measurement model has a good fit with the data based on assessment criteria such as GFI, CFI, TLI, and RMSEA. Table 2 shows that the goodness of fit of generated model is better compared to the hypothesized model. However, Hair et al (2006) point out

that all CFAs of constructs produced a relatively good fit as indicated by the goodness of fit indices such as CMIN/DF ratio (< 2); goodness of fit Index (GFI) of (> 0.90); P-value (> 0.05); and root mean square error of approximation (RMSEA) of values less than 0.08. Therefore, figure 3 shows that the goodness of fit of generating model is better compared to the hypothesized model.

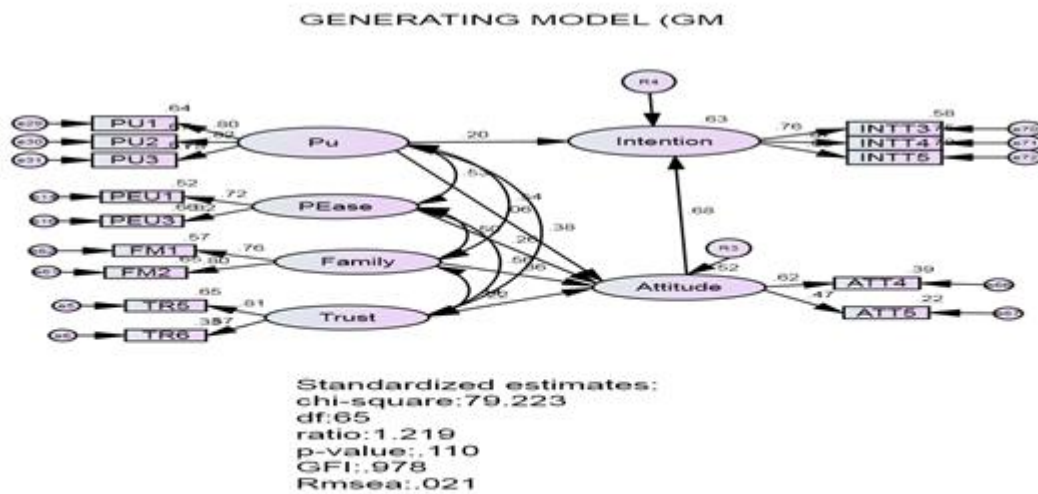


Figure 1: Generating Model (GM)

Hypotheses Results:-

As shown in Figure 1 hypothesized model did not achieve model fit (p<.000), hence, the explanation of hypotheses result is based on Generating Model (GM) (Table 3 and Figure 1). Based on the finding (Table 3), perceived usefulness and students' attitude is positively related to students' intention (H2 and H6) are supported.

The other three hypotheses (perceived ease of use, family influences, and perceived trust) related to students' attitude (H3, H4 and H5) were significant. And one hypothesis is not significant which is perceived usefulness related to students' attitude (H1).

Table 3: Direct impact Generating Model (GM): Standardized regression weights

Hypothesis	From	To	Estimate	C.R	P	Hypothesis Support
H1	Perceived usefulness	Students' Attitudes	0.034	0.67	0.502	No
H2	Perceived usefulness	Students' Intention	0.22	2.90	0.004	Yes
H3	Perceived ease of use	Students' Attitudes	0.149	2.79	0.005	Yes
H4	Family Influences	Students' Attitudes	0.223	4.23	***	Yes
H5	Perceived Trust	Students' Attitudes	0.127	2.50	0.012	Yes
H6	Students' Attitudes	Students' Intention	1.26	6.12	***	Yes

Additionally, the results show that there four exogenous variables (perceived usefulness, perceived ease of use, family influences, and perceived trust) jointly explained 52% variance in attitude, and attitude explains 63% variance in intention.

Mediating Effect Analysis of Generating Model (GM):-

This study tested mediating effect of perceived usefulness in the relationship between attitude and

intention (H7) shows no mediating effect (see Table 4). This results because the relation between perceived usefulness and attitude not significant and the relationship between attitude and intention significant (see Table 3). In additionally, indirect effect less than direct effect, this that means that organizational commitment not mediating between job satisfaction and turnover intention.

Table 4: Mediating Effect of Perceived Usefulness

Hypothesis	From	Mediation	To	Direct effect	Indirect effect	Mediating
H7	Perceived usefulness	Students' Attitudes	Students' Intention	0.20	0.04	Not Mediating

5. DISCUSSION

As show in above, this study examine the goodness of fit of the hypothesized structural model by integrating attitude and intention to use Facebook. The generating model (GM) accomplished model fits, thus, results could be generalized to the population. Students' attitude has a direct positive significant impact on students' intention. Past studies have obtained similar result (as Fishbein and Ajzen, (1975); Davis (1989); Taylor and Todd (1995) Thus, a positive relationship between attitude and intention means that the students have intent to use Facebook in future. Additionally, the antecedents of attitude were having a direct positive significant impact except Perceived usefulness. This means that students' attitude by perceived ease of use, family influences, and perceived trust were very important factors to use Facebook in future.

6. SUGGESTION FOR FUTURE RESEARCH

This study focuses of a private universities (Zarqa) university only. Future research should investigate the model in other universities in Jordan. Other determinant

factors need to be considered in future research such as technological factors (i.e. Internet), providing a services, environment factors, and infrastructure factors. More importantly, the Ministry of Jordanian high education should focus more on the students desires and needs, availability of modern facilities for students and development of better transportations avenues that could help students to have a faster access to all universities sites.

7. CONCLUSION

This research examines the antecedents of attitude/ intention among students using SEM. attitude and perceived usefulness were found to be positively and significantly related to intention. Also, antecedents of attitude were found positively and insignificant, while perceived usefulness is not. Finally, this study found that the perceived usefulness not mediate the relationship between students' attitude and students' intention to use Facebook. The result also shows that the Generating Model (GM) is the best model to explain the students' attitude toward intention as compared to the Hypothesized Models.

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