International Journal of E-Business Research
Volume 14 • Issue 2 • April-June 2018

The Influence of Enjoyment Factor Toward the Acceptance of Social Commerce

Alaa M. Momani, Al-Madinah International University, Shah Alam, Malaysia
Wael M. Yafooz, Al-Madinah International University, Shah Alam, Malaysia
Mamoun M. Jamous, Al-Madinah International University, Shah Alam, Malaysia

ABSTRACT

Social commerce is a new extension of electronic commerce that involves using social media in the online shopping process. Although the adoption of social technologies was studied in several researches, it is still needed to investigate the specific characteristics of social commerce and the affecting factors on its acceptance. This article verifies the influence of the enjoyment factor on the adoption of social commerce through applying a questionnaire sample allocated to 282 Jordanian social media users from those who are interested in online shopping. The research model is developed to validate the impact of enjoyment, in addition to some other factors, on the behavioral intentions to adopt and use social commerce. The results show that the enjoyment is a key factor on accepting social commerce. The research model indicates that it is viable and has a good power in explaining the variance in the behavioral intentions to adopt and use social commerce.

KEYWORDS

Behavioral Intentions, Enjoyment, Jordan, Social Commerce, Technology Acceptance, Usage Behavior, UTAUT

1. INTRODUCTION

Social commerce (s-commerce) is a new stream in e-commerce, presented recently from the development of information and communication technologies (ICTs), Web 2.0 technology, and cloud technology. S-commerce represents the benefiting from the social networks to enhance the e-commerce by adding some new activities for the online shopping process, in order to make it more social and acceptable by users (Gatautis and Medziausiene, 2014). Some authors like Leitner and Grechenig (2007) and Liang, Ho, Li, and Turban (2011) believe that s-commerce is affected by the expansion of social networks. The research work of Hajli (2012) mentioned that s-commerce is the resent development in e-commerce that using social technologies in order to create a new environment for social interactions. These social interactions can push online social support in e-commerce, and increase the trust, and as a result, the intention to use s-commerce will be increased. In the s-commerce context, there were a few theoretical or empirical researches on the measurement of user satisfaction of the s-commerce, and measuring the success of such systems in general (Alshibly, 2014; Huang and Benyoucef, 2013). Accordingly, this study aims to investigate the influence of the enjoyment factor

DOI: 10.4018/IJEBR.2018040105

toward the acceptance of the s-commerce and the satisfaction from using it. It revised the unified theory of acceptance and use of technology (UTAUT) that was developed by Venkatesh, Morris, Davis, and Davis (2003) by adding the enjoyment factor in the form of enjoyment expectancy to the model′s structure in order to personalize it to be more suitable to measure the technology acceptance of s-commerce within the Jordanian society.

In general, the majority of the technology acceptance theories and models do not discuss the impact of the enjoyment factor on the behavioral intentions and usage behavior of the technology, because these theories were designed to explain the usage behavior and assess the acceptance of adopting information systems in organizations with the mandatory style of usage. S-commerce is a web-based, social-commercial, and voluntary-usage application, and the enjoyment is one of the key-reasons from using it.

2. LITERATURE REVIEW

Since 1940′s, many theories resulted from motivation research (Momani and Jamous, 2017). Self-Determination Theory (SDT) which developed by Deci and Ryan in 1985 is one of them. SDT proposed that self-determination is a human quality. Deci and Ryan (1985) and Ryan and Deci (2000a) explained the psychological innate human needs which are: autonomy, competence, and relatedness. These human needs are directly affecting on individuals′ motivations. The need to autonomy refers to self-determination that causes freedom of action, mainly being self-initiating, and to self-regulating one′s own actions. The need to relatedness refers to developing secure and satisfying connections with others in same social environment (de Brabander, Rozendaal, and Martens, 2009; Hsu and Lin, 2008). According to Deci et al. (1991), these needs are necessary for individuals to be self-determined rather than controlled.

Motivational theories have supported the researches in psychology as an explanation to behavior. These researches resulted that the motivational theory contains two major factors of motivations: extrinsic motivation and intrinsic motivation. Extrinsic motivation was defined as: "the perception that users will want to perform an activity because it is perceived to be instrumental in achieving valued outcomes that are distinct from the activity itself" (Davis, Bagozzi, and Warshaw, 1992, p 1112; Venkatesh et al., 2003, p 448). While Intrinsic motivation was defined as: "the perception that users will want to perform an activity for no apparent reinforcement other than the process of performing the activity per se" (Davis et al., 1992, p 1112; Venkatesh et al., 2003, p 456). SDT represents the extrinsic motivation that consists of four types of self-determinations, which are: external, introjected, identified, and integrated form of regulation (Deci and Ryan, 1985; Deci et al., 1991; Ryan and Deci, 2000b). While the intrinsic motivation refers to intrinsic regulation. It also represents how the social environment influencing on motivated behaviors. Davis et al. (1992) tested the extrinsic and intrinsic motivation to use technology in workplaces and found that they are key drivers of an individual′s intention to perform the behavior of technology usage. They explained the extrinsic motivation to use technology as perceived usefulness from using the technology, and intrinsic motivation to use technology as perceived enjoyment of using the technology (Ryan, Patrick, Deci, and Williams, 2008). They noted the relation between usefulness and enjoyment. Enjoyment strongly effects on intentions when information systems are perceived to be more useful, which means that the enjoyability of the information system is enhancing the acceptance of useful systems, but in the same time, it has less effect on acceptance of useless systems (Davis et al., 1992).

The same concept was discussed in several technology acceptance theories besides the motivational theory such as: Model of PC Utilization (MPCU) and Social Cognitive Theory (SCT). These theories are sharing the same features of intrinsic motivation in the motivational theory (Venkatesh et al., 2003). Shen and Eder (2011) examined the factors that influence the user acceptance of social shopping websites which are designed specifically to support social interactions with shoppers. Their study utilized the Technology Acceptance Model (TAM) with specific constructs that may enhance the

power of the model to predict the user acceptance of social shopping applications, including social comparison, social engagement, enjoyment, perceived ease of use, and perceived usefulness. The study of Gatautis and Medziausiene (2014) aimed to address the users′ acceptance for s-commerce by identifying various factors affecting the attitudes towards its adoption. They reviewed the Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB), and TAM, and utilized the constructs of the UTAUT in addition to the factor of perceived enjoyment, as well.

3. RESEARCH METHODOLOGY

3.1. Research Hypotheses

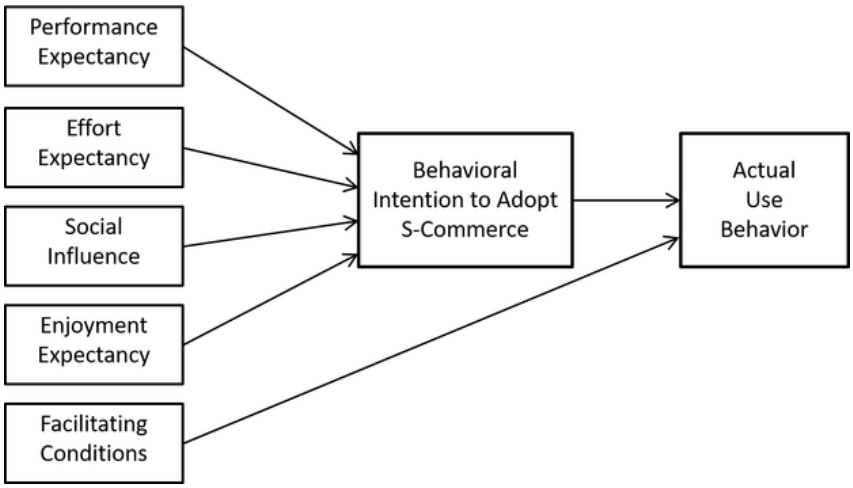
The research hypotheses of this study present the relations between the model's constructs with the behavioral intentions and actual use behavior. All hypotheses of this research have to be tested statistically depending on the quantitative research method. The proposed research model of this study (Figure 1) consists of five constructs as follows: performance expectancy, effort expectancy, social influence, enjoyment expectancy, and facilitating conditions. The group of determinants (constructs) and their related proposed hypotheses are being discussed as follows:

1. **Performance Expectancy (PE):** It is defined as the degree to which an individual believes that using the system will help him/her to attain gains in job performance (Venkatesh et al., 2003, p 447). It focuses on testing the degree of the beliefs of users that using s-commerce in their online shopping activities will help them attain gains in their job performance. The related studies have shown that the performance expectancy has a positive and significant relation with the behavioral intention (Davis, Bagozzi, and Warshaw, 1989; Davis, 1986; Venkatesh and Davis, 2000). According to this, the following hypothesis was proposed:

H1: Performance expectancy has an effect on behavioral intention to adopt s-commerce.

2. **Effort Expectancy (EE):** It is the degree of ease associated with the use of the system (Venkatesh et al., 2003, p 450). It focuses on the degree of ease in using the s-commerce and social online shopping applications. The related studies have shown that the effort expectancy has a significant

Figure 1. The research model



relation with the behavioral intention (Davis, 1986; Triandis, 1979; Venkatesh and Davis, 2000). According to this, the following hypothesis was proposed:

H2: Effort expectancy has an effect on behavioral intention to adopt s-commerce.

3. **Social Influence (SI):** It is defined as: the degree to which an individual perceives that important others believe he/she should use the new system (Venkatesh et al., 2003, p 451). It examines the degree to what extent a consumer perceives that important others believe in using s-commerce. This determinant investigates the users′ opinion about the society influence on the decision to adopt s-commerce. According to this, the following hypothesis was proposed:

H3: Social influence has an effect on behavioral intention to adopt s-commerce.

4. **Enjoyment Expectancy (EN):** According to Davis et al. (1992), the enjoyment expectancy is the extent to which the activity of using a certain technology is perceived as being enjoyable. Depending on the proposed framework of this study, enjoyment expectancy is proposed as a direct determinant of behavioral intention. This part of s-commerce acceptance focused on the hedonic experience that the consumer would gain from using s-commerce. This determinant tests the viewpoint of the level of enjoyment and fun expected from using the s-commerce. According to this, the following hypothesis was proposed:

H4: Enjoyment expectancy has an effect on behavioral intention to adopt s-commerce.

5. **Facilitating Conditions (FC):** It is defined as: the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system (Venkatesh et al., 2003, p 453). It tests the degree to what extent a consumer believes that the social networks, as a working environment, support the use of s-commerce. The related researches denoted that it has insignificant effect on the behavioral intention. It has a positive influence on the usage behavior (Ajzen, 1985; Rogers, 1983, 2003; Taylor and Todd, 1995a, 1995c; Triandis, 1979). For this, the following hypothesis was proposed:

H5: Facilitating conditions has an effect on actual use behavior of s-commerce.

6. **Behavioral Intention (BI):** It is the degree to which a person has formulated conscious plans to perform or not perform some specified future behavior (Venkatesh et al., 2003). It means the degree to what extent a consumer has formulated conscious plans to perform or not perform his/her future behavior. This determinant investigates the consumers′ opinions about continuing using s-commerce in the future. The related researches have shown that it has a direct relation with usage behavior (Ajzen and Fishbein, 1980; Ajzen, 1985; Davis et al., 1989; Taylor and Todd, 1995b, 1995c; Venkatesh and Davis, 2000). According to this, the following hypothesis was proposed:

H6: Behavioral intention to adopt s-commerce has an effect on actual use behavior of s-commerce.

3.2. Research Instrument Design

This study utilized the survey questionnaire technique in collecting its data. As mentioned before, the research model of this study has five major determinants, or constructs, for usage intentions and actual use of s-commerce. Performance expectancy, effort expectancy, social influence, and enjoyment

expectancy are influencing the behavioral intentions, while facilitating conditions has an influence on the actual usage behavior. Each construct is tested within the questionnaire by four statements. These statements are evaluated by five levels of agreement depending on five-point Likert-type scales (Chomeya, 2010; Pallant, 2005; Sekaran, 2003). The participant has to give his/her opinion about his/her status for each statement from the twenty-four statements presenting the s-commerce adoption acceptance test. Table 1 discusses the tested statements for each one of the five constructs, in addition to the behavioral intention factor.

Table 1. The testing statements of s-commerce acceptance test

Construct	The Related Questionnaire Statements
PE	1. Using my social network account in online shopping would enhance my effectiveness of online shopping. 2. Using my social network account in online shopping would help me more in searching for the most appropriate commodity. 3. Using my social network account would help me in discussing opinions and requirements about the commodity with the producers, suppliers, and distributors more effectively. 4. Using my social network account would ease getting reviews about the commodity from its users and discuss it with them. **References:** Alarcón-del-Amo, Lorenzo-Romero, and Gómez-Borja (2012); Ernst, Pfeiffer, and Rothlauf (2013); Venkatesh et al. (2003)
EE	1. Learning to shop through my account on social network would be easy for me. 2. Using my social network account in online shopping is clear and understandable. 3. It would be easy for me to become skillful in using my social network account in my online shopping. 4. I would find it easy to let the shopping system do what I want it to do. **References:** AbuShanab and Pearson (2007); Davis (1989); Venkatesh et al. (2003)
SI	1. Friends on my social network account positively influenced me to use the s-commerce. 2. People who influence my online shopping behavior think that I should use the s-commerce. 3. I prefer to carry the online shopping process accompanied by my family or one of my friends. 4. People who use the social commerce get the best deals than those who do not. **References:** Al Qeisi and Al-Abdallah (2014); Venkatesh et al. (2003)
EN	1. I like shopping by using my social network account more than the traditional online shopping process. 2. I find using my social network account in online shopping process is enjoyable. 3. Sharing the shopping activities between me and my friends and admiring and comments on them through social networks is an exciting process. 4. Discussing the purchasing decisions with friends through the social networking sites is much beneficial to me. **References:** Davis et al. (1992); Ernst et al. (2013); Venkatesh, Thong, and Xu (2012)
FC	1. Using my social network account in online shopping is secured whether to my personal information or in the electronic payment process. 2. By using my social network account in the online shopping, I have the whole control on the purchasing process starting from choosing the commodity as per the specifications I want and ending with completing the electronic payment successfully. 3. Specialized instructions and using-tips provided by the social online shopping site are available to me during the online shopping process through using my account on the social network. 4. From my experience, I found that the assistance and technical support teams in the social networks and social online shopping sites are ready for any assistance or queries. **References:** Alshehri (2012); Kocaleva, Stojanovic, and Zdravev (2015); Kripanont (2007); Venkatesh et al. (2003)
BI	1. I intend to continue using the social commerce in my online shopping. 2. I would use s-commerce in my online shopping to get the benefits of the use of social networking tools in the online shopping operations. 3. I predict that social commerce will enrich my online shopping experience. 4. I will recommend this experience to others. **References:** Dulcic, Pavlic, and Silic (2012); Hu, Poston, and Kettinger (2011); Lim and Ting (2012); Venkatesh et al. (2003)

3.3. Research Sample and Data Collection

The research population of this study is the actual users of social media within the Jordanian society who are interested in selling and buying over the internet by using their own accounts on the social networks regardless of their career area that would enhance the generalizability of the research results. The best way to define the sample size is to calculate it mathematically. This study adopted Steve Thompson′s equation for estimating the sample size (Thompson, 2012; Vincent and Thompson, 2014). After calculation, the result was at least of 273 usable responses is the target set for this study, taking into consideration, the model complexity and the guidelines of researchers for applying surveys to study the technology acceptance. Actually, a total of 282 questionnaires were collected as a primary data for this study.

4. RESULTS AND DISCUSSION

4.1. Reliability Test

Reliability analysis is an important step in any questionnaire analysis. It is the degree of accuracy of collected data and the consistency of measurements. For this study, the most popular technique was used which is the Cronbach′s coefficient alpha (α) (Field, 2009; Kline, 2011; Pallant, 2005). As mentioned by Marchewka, Liu, and Kostiwa (2007) and Hair, Black, Babin, and Anderson (2009), Cronbach′s α values close to 1.0 are excellent reliability, over 0.8 are good, in the range of 0.7 are acceptable, and below 0.6 are considered to be poor. Accordingly, by using SPSS, as shown in Table 2, all Cronbach′s α values of each variable are above 0.7, and from the acceptable to the excellent level of reliability. These results indicate that the statements of each measurement item were positively correlated to one another, and they are independent measures for the measurement item.

For other evidence to the questionnaire reliability, another measure was used to assess the internal consistency, which is the inter-item correlation. Inter-item measurement measures the correlation among statements for each item (Hair et al., 2009). The correlation value from 0.10 to 0.29 is considered to be small correlation, from 0.30 to 0.49 is medium correlation, and from 0.50 to 1.0 is large correlation, all these considerations are for both positive and negative correlations (Pallant, 2005). The inter-item correlations′ values are represented in Table 2. It is clear that all the values are above 0.3. These results supported the results of Cronbach's α. And as a result, these values suggest that the questionnaire was reliable research instrument and measurement tool.

4.2. Validity Test

The exploratory factor analysis is a successful technique to assess the relationships among variables for exploring the construct validity of the instrument's scale. Herein, the AMOS statistical package was used to analyze the factor loading of the six scales of the proposed model. The items with values

Table 2. Cronbach's alpha and inter-item correlations reliability results

Measurement Items	No. of Statements	Cronbach's α	Inter-Item Correlation
PE	4	.864	.539 – .722
EE	4	.910	.678 – .783
SI	4	.705	.311 – .459
EN	4	.842	.483 – .686
FC	4	.843	.500 – .714
BI	4	.868	.498 – .766

below 0.4 are considered to be low-loaded (Hair et al., 2009). Table 3 presents the loading values of all scales, and all of them are resulting values above the minimum value of factor loading.

4.3. Structural Equation Modelling (SEM)

The SEM is a general structural modelling technique which is widely used in behavioral sciences, especially in information technology researches. It describes the structural relationships among the constructs in the model. Skrondal and Rabe-hesketh (2005) mentioned that SEM contains two types of models, the measurement model and structural model. Measurement model relates the observed responses to the latent variables. Structural model then specifies the relations between the latent variables and regressions of the latent variables on the observed variables in order to describe how the constructs are related to other constructs in the model (Awang, 2012). These two models were applied herein by using AMOS:

1. **Measurement Model Assessment:** Hair et al. (2009) recommended using the goodness-of-fit (GOF) measures in order to evaluate the measurement model. Several tests were applied, and the results showed that the model is from acceptable to good level of fit with values as follows: Chi-square ($\chi^2 = 419.178$), degree of freedom ($df = 237$), the relative Chi-square ($\chi^2/df = 1.769$), Comparative Fit Index (CFI = 0.953), Tucker-Lewis Index (TLI = 0.945), Incremental Fit Index (IFI = 0.953), and Root Mean Square Error of Approximation (RMSEA=0.052). All results were in good level of fit, Chi-square (χ^2) was greater than the degree for freedom (df), CFI, TFI, and IFI indices were above 0.90, finally, RMSEA was less than 0.80;
2. **Structural Model Assessment:** Within this step, the hypothesized model and its entire relations among constructs were evaluated. GOF test results were as follows: $\chi^2 = 511.280$, $df = 283$, $\chi^2/df = 1.807$, CFI=0.946, TFI=0.938, IFI=0.947, RMSEA=0.054. All results were in good level of fit. Furthermore, the standardized coefficients were presented in Table 4. It is clear that the whole the standardized path coefficient values were in the acceptable range (above 0.30). Accordingly, these results showed a good level of fit to the model.

Table 3. Factor loading of the model's measurement scales

	Factor Loading			
PE	PE1	PE2	PE3	PE4
	.672	.790	.848	.826
EE	EE1	EE2	EE3	EE4
	.836	.905	.847	.847
SI	SI1	SI2	SI3	SI4
	.600	.556	.631	.670
EN	EN1	EN2	EN3	EN4
	.741	.871	.742	.686
FC	FC1	FC2	FC3	FC4
	.670	.729	.837	.796
BI	BI1	BI2	BI3	BI4
	.864	.835	.828	.657

Table 4. The structural model assessment findings

Hypothesis	Path	Standardized Path Coefficient	Hypothesis Testing Result
H1	PE → BI	0.39 ***	Supported
H2	EE → BI	0.33 ***	Supported
H3	SI → BI	0.35 ***	Supported
H4	EN → BI	0.41 ***	Supported
H5	FC → AU	0.84 ***	Supported
H6	BI → AU	0.55 ***	Supported

Note: *** $p < 0.001$

4.4. Discussion

Actually, the technology acceptance theories that were reviewed by Venkatesh et al. (2003) showed an explanatory power in explaining the variance in the behavioral intentions at a rate ranging from 17% to 42%, while the original UTAUT showed that it can explain 69% of the variance in the behavioral intentions. It is important to mention that the squared multiple correlations (SMCs) of the research model have been estimated by AMOS in order to investigate how much the independent variables can explain the variance of the dependent variables (Nokelainen, 2009). As a result, the model has a power to explain 70% of the variance of behavioral intentions to adopt s-commerce, which is very close to the original UTAUT model. Depending on this finding, it can be concluded that the research model is viable after this modification operation.

5. CONCLUSION

SEM gave a result indicating that the performance expectancy, effort expectancy, social influence, and enjoyment expectancy are significantly influencing on the behavioral intentions to adopt s-commerce by the Jordanian consumers, while the facilitating conditions and the behavioral intentions are significantly influencing on the actual use behavior of s-commerce. These results supported wholly the hypotheses proposed within this study and showed strong statistical evidence on the validity of the research model of all constructs.

S-commerce could be an alternative to the traditional way of online shopping, because of the revolutionary features offered to the consumers. Social media communication and interaction tools make the online shopping more enjoyable, and as a result, it will increase the level of acceptance, as well as, the satisfaction of the process.

REFERENCES

AbuShanab, E., & Pearson, J. M. (2007). Internet banking in Jordan The Unified Theory of Acceptance and Use of Technology (UTAUT) perspective. *Journal of Systems and Information Technology*, *9*(1), 78–97. doi:10.1108/13287260710817700

Ajzen, I. (1985). From Intentions to Actions: A Theory of Planned Behaviour. In J. Kuhl & J. Beckmann (Eds.), *Action Control* (pp. 11–39). Springer-Verlag Berlin Heidelberg. doi:10.1007/978-3-642-69746-3_2

Ajzen, I., & Fishbein, M. (1980). *Understanding Attitudes and Predicting Social Behavior* (1st ed.). Englewood Cliffs, NJ: Pearson.

Al Qeisi, K. I., & Al-Abdallah, G. M. (2014). Website Design and Usage Behaviour: An Application of the UTAUT Model for Internet Banking in UK. *International Journal of Marketing Studies*, *6*(1), 75–89. doi:10.5539/ijms.v6n1p75

Alarcón-del-Amo, M.-C., Lorenzo-Romero, C., & Gómez-Borja, M.-Á. (2012). Analysis of Acceptance of Social Networking Sites. *African Journal of Business Management*, *6*(29), 8609–8619.

Alshehri, M. A. (2012). *Using the UTAUT Model to Determine Factors Affecting Acceptance and Use of E-government Services in the Kingdom of Saudi Arabia*. Griffith University.

Alshibly, H. H. (2014). A Free Simulation Experiment to Examine the Effects of Social Commerce Website Quality and customer Psychological Empowerment on Customers' Satisfaction. *Journal of Business Studies Quarterly*, *5*(4), 21–41.

Awang, Z. (2012). Analyzing The SEM Structural Model. In A Handbook on SEM (4th ed.). UiTM Kelantan.

Chomeya, R. (2010). Quality of Psychology Test Between Likert Scale 5 and 6 Points. *Journal of Social Sciences*, *6*(3), 399–403. doi:10.3844/jssp.2010.399.403

Davis, F. D. (1986). *A Technology Acceptance Model for Empirical Testing New End-User Information System: Theory and Results*. Massachusetts Institute of Technology.

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *Management Information Systems Quarterly*, *13*(3), 319–340. doi:10.2307/249008

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). User Acceptance of Computer Technology: A Comparison of Two Theoretical Models. *Management Science*, *35*(8), 982–1003. doi:10.1287/mnsc.35.8.982

Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1992). Extrinsic and Intrinsic Motivation to Use Computers in the Workplace. *Journal of Applied Social Psychology*, *22*(14), 1111–1132. doi:10.1111/j.1559-1816.1992.tb00945.x

de Brabander, C. J., Rozendaal, J. S., & Martens, R. L. (2009). Investigating efficacy expectancy as criterion for Comparison of Teacher- Versus Student-Regulated Learning in Higher Education. *Learning Environments Research*, *12*(3), 191–207. doi:10.1007/s10984-009-9062-y

Deci, E. L., & Ryan, R. M. (1985). *Intrinsic Motivation and Self-Determination in Human Behavior* (1st ed.). Plenum Press. doi:10.1007/978-1-4899-2271-7

Deci, E. L., Vallerand, R. J., Pelletier, L. G., and Ryan, R. M. (1991). Motivation and Education: The Self-Determination Perspective. *Educational Psychologist, 26*(3 and 4), 325–346.

Dulcic, Z., Pavlic, D., & Silic, I. (2012). Evaluating the intended use of Decision Support System (DSS) by Applying Technology Acceptance Model (TAM) in business organizations in Croatia. In *Procedia - Social and Behavioral Sciences, 8th International Strategic Management Conference* (Vol. 58, pp. 1565–1575).

Ernst, C. H., Pfeiffer, J., & Rothlauf, F. (2013). Hedonic and Utilitarian Motivations of Social Network Site Adoption (No. 01/2013).

Field, A. (2009). *Discovering Statistics Using SPSS* (3rd ed.). London, UK: SAGE Publication Ltd.

Gatautis, R., & Medziausiene, A. (2014). Factors Affecting Social Commerce Acceptance in Lithuania. In Social and Behavioral Sciences, Contemporary Issues in Business, Management and Education 2013 (Vol. 110, pp. 1235–1242). Elsevier B.V. doi:10.1016/j.sbspro.2013.12.970

Hair, J. F. J., Black, W. C., Babin, B. J., & Anderson, R. E. (2009). *Multivariate Data Analysis (7th Ed.)*. Pearson.

Hajli, M. (2012). Social Commerce Adoption Model. In *The UK Academy of Information Systems Conference*. AIS.

Hsu, C.-L., & Lin, J. C. (2008). Acceptance of Blog Usage: The Roles of Technology Acceptance, Social Influence and Knowledge Sharing Motivation. *Information and Management Journal*, *45*(1), 65–74. doi:10.1016/j.im.2007.11.001

Hu, T., Poston, R. S., & Kettinger, W. J. (2011). Nonadopters of Online Social Network Services: Is It Easy to Have Fun Yet? *Communications of the Association for Information Systems*, *29*(25).

Huang, Z., & Benyoucef, M. (2013). From E-Commerce to Social Commerce: A Close Look at Design Features. *Electronic Commerce Research and Applications*, *12*(4), 246–259. doi:10.1016/j.elerap.2012.12.003

Kline, R. B. (2011). *Principles and Practice of Structural Equation Modeling* (3rd ed.). New York, USA: The Guilford Press.

Kocaleva, M., Stojanovic, I., & Zdravev, Z. (2015). Model of e-Learning Acceptance and Use for Teaching Staff in Higher Education Institutions. *International Journal of Modern Education and Computer Science*, *4*(4), 23–31. doi:10.5815/ijmecs.2015.04.03

Kripanont, N. (2007). *Examining a Technology Acceptance Model of Internet Usage by Academics within Thai Business Schools*. Victoria University.

Leitner, P., & Grechenig, T. (2007). Community Driven Commerce: Design of an Integrated Framework for Social Shopping. In *Proceedings of the IADIS International Conference on e-Commerce,* Algarve, Portugal (pp. 344–353).

Liang, T.-P., Ho, Y.-T., Li, Y.-W., & Turban, E. (2011). What Drives Social Commerce: The Role of Social Support and Relationship Quality. *International Journal of Electronic Commerce*, *16*(2), 69–90. doi:10.2753/JEC1086-4415160204

Lim, W. M., & Ting, D. H. (2012). E-Shopping: An Analysis of the Technology Acceptance Model. *Modern Applied Science*, *6*(4), 49–62. doi:10.5539/mas.v6n4p49

Marchewka, J. T., Liu, C., & Kostiwa, K. (2007). An Application of the UTAUT Model for Understanding Student Perceptions Using Course Management Software. *Communications of the IIMA*, *7*(2), 93–104.

Momani, A. M., & Jamous, M. M. (2017). The Evolution of Technology Acceptance Theories. *International Journal of Contemporary Computer Research*, *1*(1), 51–58.

Nokelainen, P. (2009). Structural Equation Modeling with AMOS (Vol. 2.5). Finland.

Pallant, J. (2005). *Spss Survival Manual: A step by step guide to data analysis using SPSS for Windows (Version 12) (2nd ed.)*. Crows Nest, NSW: Allen and Unwin.

Rogers, E. M. (1983). *Diffusion of Innovations* (3rd ed.). The Free Press.

Rogers, E. M. (2003). *Diffusion of Innovations* (5th ed.). New York: Free Press.

Ryan, R. M., & Deci, E. L. (2000a). Intrinsic and Extrinsic Motivations: Classic Definitions and New Directions. *Contemporary Educational Psychology*, *25*(1), 54–67. doi:10.1006/ceps.1999.1020 PMID:10620381

Ryan, R. M., & Deci, E. L. (2000b). Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *The American Psychologist*, *55*(1), 68–78. doi:10.1037/0003-066X.55.1.68 PMID:11392867

Ryan, R. M., Patrick, H., Deci, E. L., & Williams, G. C. (2008). Facilitating Health Behaviour Change and its Maintenance: Interventions based on Self-Determination Theory. *The European Health Psychologist, 10*.

Sekaran, U. (2003). *Research Methods for Business: A Skill-Building Approach* (4th ed.). USA: John Wiley and Sons, Inc.

Shen, J., & Eder, L. (2011). An Examination of Factors Associated with User Acceptance of Social Shopping Websites. *International Journal of Technology and Human Interaction*, *7*(1), 19–21. doi:10.4018/jthi.2011010102

Skrondal, A., & Rabe-hesketh, S. (2005). Structural Equation Modeling: Categorical Variables. In *Entry for the Encyclopedia of Statistics in Behavioral Science*. Wiley Publishing. doi:10.1002/0470013192.bsa596

Taylor, S., & Todd, P. A. (1995a). Assessing IT Usage: The Role of Prior Experience. *Management Information Systems Quarterly*, *19*(4), 561–570. doi:10.2307/249633

Taylor, S., & Todd, P. A. (1995b). Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions. *International Journal of Research in Marketing*, *12*(2), 137–155. doi:10.1016/0167-8116(94)00019-K

Taylor, S., & Todd, P. A. (1995c). Understanding Information Technology usage: A Test of Competing Models. *Information Systems Research*, *6*(2), 144–176. doi:10.1287/isre.6.2.144

Thompson, S. K. (2012). Sampling (3rd ed.). John Wiley and Sons, Inc.

Triandis, H. C. (1979). Values, attitudes, and interpersonal behavior. *Nebraska Symposium on Motivation*, *27*, 195–259. PMID:7242748

Venkatesh, V., & Davis, F. D. (2000). A Theoretical Extension of the Technology Acceptance Model: Four Longitudinal Field Studies. *Management Science*, *46*(2), 186–204. doi:10.1287/mnsc.46.2.186.11926

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User Acceptance of Information Technology: Toward a Unified View. *Management Information Systems Quarterly*, *27*(3), 425–478. doi:10.2307/30036540

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending The Unified Theory. *Management Information Systems Quarterly*, *36*(1), 157–178.

Vincent, K., & Thompson, S. (2014). Estimating Population Size with Link-Tracing Sampling. *Journal of the American Statistical Association*.

Alaa M. Momani worked as full-time lecturer at the University of Hail, KSA since 2009. He obtained a BSc degree in Computer Information Systems from Jordan University of Science and Technology, Jordan in 2005, and an MSc degree in Computer Information Systems from Near East University, Cyprus in 2008. Now, he is a PhD candidate in the faculty of Computer and Information Technology at Al-Madinah International University, Malaysia. His research interests are in software engineering, technology acceptance and usage behaviors, electronic commerce, social applications, and expert systems and decision support systems.

Wael Yafooz is an associate professor in the faculty of Computer and Information Technology at Al-Madinah International University, Malaysia. He received his PhD in Computer Science in 2014 from the University MARA of Technology, Malaysia. His research interest includes big data, databases, data mining, visual computing and data management.

Mamoun M. Jamous is an assistant professor in the faculty of Computer and Information Technology at Al-Madinah International University where he has been a faculty member since 2014. Mamoun completed his PhD and MSc at Universiti Teknologi Malaysia and his undergraduate studies at Sudan University of Science and Technology. His research interests lie in the area of software engineering, web services, and information retrieval.