Examining E-Commerce Satisfaction and Sales Growth Considering the Role of Trust in Social Commerce

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Abstract: In this study, e-commerce satisfaction and sales growth by considering the role of trust in social commerce are examined. In a trust-based environment, tools such as coercion to secure trades lose their effectiveness. Instead, people are willing to pay back and believe in honesty. Trust fosters market work, increases the willingness of individuals to interact and collaborate with groups, and provides a thriving network of voluntary gatherings. Trust, on the other hand, affects a person's satisfaction, purchase intention, and buying behavior. This study is conducted to examine e-commerce satisfaction and sales growth by considering the role of trust in social commerce. Therefore, a model is proposed to achieve the main goal using structural equation modeling (SEM). The hypotheses are then tested using Amos and 22spss software. In the inferential statistics section, the normal distribution of the variables is first examined using the Smirnov-Kolmogorov test. Since the significance level of all variables is higher than 0.05, it can be claimed that all variables are normally distributed. In the factor analysis section, the sample adequacy is examined using KMO and Bartlett's test. The hypotheses are then tested using Amos software and regression in SPSS software.

Keywords: e-commerce; sales growth; the role of trust in social commerce

1 INTRODUCTION

Nowadays, a good platform for business and economic communication has been provided due to the access of a large number of people around the world to the World Wide Web and the expansion of electronic communications between different individuals and organizations through the virtual world. E-commerce is the main achievement of using ICT in economic fields [7]. Among the essential tools for the realization and expansion of e-commerce are e-services that facilitate e-commerce activities in line with global systems. It can be argued that the realization of e-services is a prerequisite for the implementation of e-commerce. Therefore, the use of electronic systems and the number of users of electronic services are rapidly expanding [9]. E-commerce has provided the basis for quality improvement, faster access to customers, and reducing the cost of customer access. Moreover, the use of e-commerce in business will bring several benefits such as globalization of trade, job creation, expanding market coverage, improving productivity, significantly reducing transaction costs, and increasing sales [2]. The issue of e-trust has become more prominent because of the advent of e-commerce and the conduct of large exchanges through it. E-marketing holds that trust is the main determinant of long-term relationships in online and offline settings [4]. Trust is one of the most important aspects of human relationships that enable participation and cooperation among members of society. Trust accelerates exchanges in various economic, social, and cultural fields, promotes market function, increases the willingness of individuals to interact and collaborate with groups, provides a thriving network of voluntary communities, and affects the development of satisfaction, purchase intention, and buying behavior [6]. In this study, developing e-commerce satisfaction and sales growth is examined by considering the role of trust in social business.

2 THEORETICAL FOUNDATIONS

E-commerce refers to conducting business transactions through the network, especially the Internet. E-commerce goes beyond having a website and includes ordering, job search, recruitment, and information exchange using information technology. In e-commerce, money can be paid both traditionally and electronically [10]. Satisfaction is a person's positive feeling after purchasing a product or service through e-commerce. The desired feeling is due to the confrontation between customer expectations and supplier performance. The customer feels satisfied if the goods and services received by the customer are evaluated at the same level of expectations [8]. Trust is the core of e-commerce. Trust is a major issue in most social and economic interactions, especially in cyberspace where there are process ambiguities [14]. Trust plays an important role in the adoption of e-commerce and SNSs. The need for trust to reduce the risk of both parties in interactions is seen as social technologies such as SNSs and social media spread (Ming et al., 2009). Trust is the result of an organization fulfilling its promises. Furthermore, trust is increased by the openness of an organization to receiving data from others. Key factors of consumer trust and factors affecting the intention of social commerce should be examined due to the increasing popularity and application of social commerce and its important role in online commerce [15].

3 LITERATURE REVIEW

In a study titled the Effect of Social Media Information on Trust, Purchase Intention, and Word-of-Mouth in Social Commerce (Case Study of Instagram Social Network), Mozari Lang (2016) found that content and source of information have a significant positive effect on the credibility of the source and the quality of information at the 95% confidence level. Source credibility has no significant effect on trust. Besides, the quality of information has a

significant positive effect on trust, and trust has a significant positive effect on purchase intention and word-of-mouth. In a study titled The Effect of E-Commerce on Customer Loyalty, Satisfaction, and Trust, Ebrahimi (2015) [3] concluded that e-commerce has a significant positive effect on e-loyalty and e-commerce and there is also a direct relationship between e-commerce (dependent variable) and e-loyalty of customers (independent variable). Bajelani et al. (2017) [1] conducted a study titled The Effect of Social Commerce Characteristics on Trust in Social Commerce (Case Study: Customers of Digi Kala Sanandaj Store). The results showed that there is a significant positive relationship between social commerce characteristics and willingness to participate. The results of multivariate regression also indicated that social commerce characteristics affect trust in social commerce. In a study titled Consumer Behavior in Social Commerce: Results from a Meta-Analysis, Mou and Benyoucef (2021) [11] found that interpersonal trust is more closely related to social commerce than organizational trust. In a study titled The Role of Social Commerce in Online Purchase Intention: The Mediating Role of Social Interactions, Trust, and Electronic Word-of-Mouth, Monfared et al. (2021) [13] concluded that emotional support

affects trust and that trust significantly affects electronic word-of-mouth. Electronic word-of-mouth also significantly affects purchase intention. Attar et al. (2020) [12] conducted a study titled Investigating the Antecedents of E-Commerce Satisfaction in Social Commerce Context and found that trust significantly affects e-commerce satisfaction leading to purchase intention.

4 MATERIALS AND METHODS

This is a descriptive-survey study in which data are collected using questionnaires. The statistical population includes all Digi Kala customers in Tehran, and the sample size is determined using Morgan's Table. Since the study is conducted to examine e-commerce satisfaction and sales growth by considering the role of trust in social commerce, a suitable model is proposed using structural equation modeling (SEM). The hypotheses are then tested using Amos and 22spss software.

5 THE CONCEPTUAL MODEL
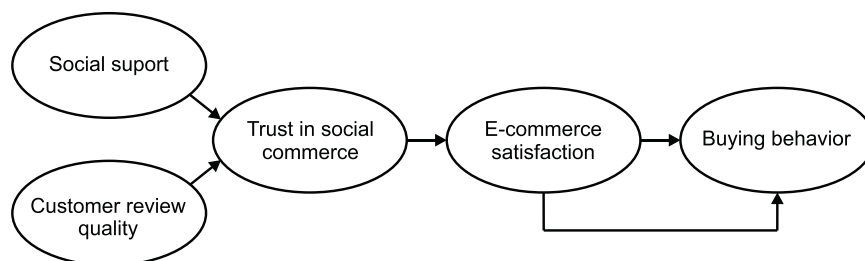
The conceptual model is shown in Fig. 1.

Figure 1 Conceptual Model [5]

6 HYPOTHESES
6.1 The Main Hypothesis

There is a significant positive relationship between trust in social commerce with e-commerce satisfaction and sales growth.

6.2 Sub-Hypotheses

1) There is a significant positive relationship between trust in social commerce and e-commerce satisfaction.
2) There is a significant positive relationship between trust in social business and buying behavior.
3) There is a significant positive relationship between e-commerce satisfaction and buying behavior.

4) There is a significant positive relationship between social support and trust in social commerce.
5) There is a significant positive relationship between customer review quality and trust in social commerce.

7 DESCRIPTION OF VARIABLES

This section provides statistical indicators including mean, standard deviation, and percent error (independent and dependent variables). These indicators can help to better understand the variables.

According to Tab. 1, the maximum mean value belongs to the buying behavior and the minimum mean value belongs to customer review quality.

Table 1 Descriptive statistics of the variables

	Min	Max	Mean	SD	Variance	Skewness	Kurtosis
Social support	1	5	2.6211	0.62293	0.388	1.224	0.841
Customer review quality	1	4.83	2.2878	0.77691	0.604	−0.177	0.617
Trust in social commerce	1	5	2.7491	0.61162	0.374	1.608	0.368
E-commerce satisfaction	1	5	3.1165	0.98484	0.970	−0.423	−0.538
Buying behavior	1	5	3.2439	1.33087	1.771	−1.116	−0.268

8 MODEL EVALUATION

As a first step in performing confirmatory factor analysis (CFA), factor loadings are standardized and significance is checked to ensure that markers are involved in measuring their latent structures, or in other words, are significant. Significant coefficients outside of −1.96 and −1.96 are acceptable for markers, and the standard factor loadings are the same as the regression coefficients of the latent variable path to the marker, which must be greater than 0.3. However, some references consider the minimum acceptable value to be 0.5.
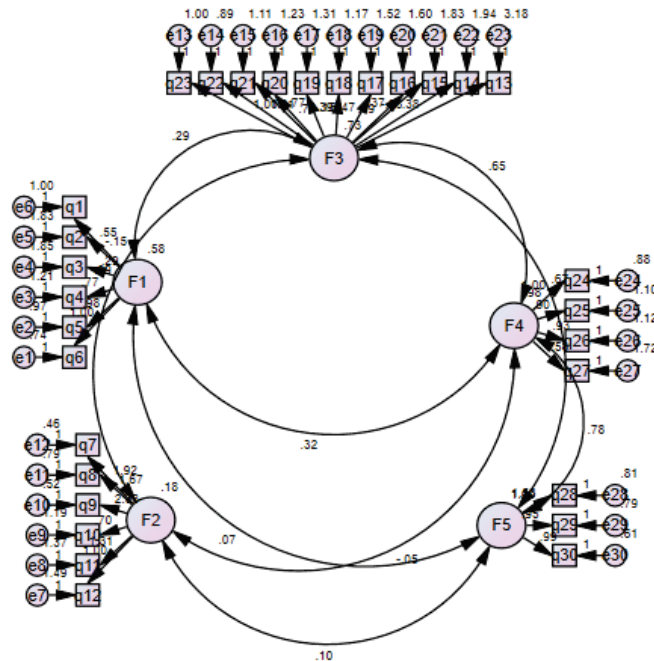

Figure 2 Standard coefficients of measurement model variables

There must be a significant correlation between the index and the dimension to achieve validity. The standard estimation model is obtained by matching the two-covariance matrices of the data model and shows the actual estimation of the model parameters. In this model, the degree of correlation between the index and the dimension and vice versa is shown. The standardized coefficient measurement model (Fig. 2) indicates that there is a significant correlation between latent variables and their corresponding indices. Standardized coefficients represent standardized path coefficients or factor loadings between factors and markers. The coefficients between the questions and the variables are the standardized coefficient, indicating the degree of ability to measure each index in the variable.

Significance coefficients indicate the significance of the relationships between variables. If these coefficients are between −1.96 and 1.96, they indicate the inability of the index to measure the corresponding variable. Tab. 2 shows the factor loading values along with their significance values.

As can be seen in Tab. 2, the values of the significant coefficients (t-value) for all items are out of range (1.96, −

1.96). Therefore, markers are involved in measuring their latent structures, or in other words, are significant.

Table 2 CFA results

Variables	t-value	Significance
Question 1	5.620	0.000
Question 2	2.358	0.000
Question 3	2.511	0.000
Question 4	6.492	0.000
Question 5	7.428	0.000
Question 6	7.068	0.000
Question 7	5.873	0.000
Question 8	5.632	0.000
Question 9	5.900	0.000
Question 10	3.824	0.000
Question 11	4.970	0.000
Question 12	5.006	0.000
Question 13	3.104	0.000
Question 14	6.858	0.000
Question 15	3.984	0.000
Question 16	5.438	0.000
Question 17	5.329	0.000
Question 18	5.077	0.000
Question 19	2.019	0.000
Question 20	8.209	0.000
Question 21	8.609	0.000
Question 22	10.443	0.000
Question 23	5.006	0.000
Question 24	6.159	0.000
Question 25	10.968	0.000
Question 26	11.104	0.000
Question 27	6.989	0.000
Question 28	5.113	0.000
Question 29	16.544	0.000
Question 30	17.360	0.000

9 FITTING THE STRUCTURAL MODEL AND TESTING THE HYPOTHESES

Fig. 3 shows the structural model in which the estimated regression coefficients between the structural model variables are displayed.

Tabs. 3 and 4 summarize the results of the structural model fitting.

According to Tab. 4, all fitted indices of the model are in the desired range.

Hypothesis 1: There is a significant positive relationship between trust in social commerce and e-commerce satisfaction.

H0: There is no significant positive relationship between trust in social commerce and e-commerce satisfaction.

H1: There is a significant positive relationship between trust in social commerce and e-commerce satisfaction.

According to the table above, the standard regression coefficient is 0.294 and the t-value is 5.238, indicating that trust in social commence has a significant direct effect on e-commerce satisfaction at a significant level of 5 (because the significance level is less than the test level of 0.05 and the sign of regression coefficient is positive). It can be argued that since the significance level is less than 0.05, the null hypothesis is rejected and the alternative hypothesis is confirmed. In other words, there is a significant positive relationship between trust in social commerce and e-commerce satisfaction.

Hypothesis 2: There is a significant positive relationship between trust in social commerce and buying behavior.

H0: There is no significant positive relationship between trust in social commerce and buying behavior.

H1: There is a significant positive relationship between trust in social commerce and buying behavior.

According to the table above, the standard regression coefficient is 0.673 and the t-value is 7.474, indicating that trust in social commence has a significant direct effect on

buying behavior at a significant level of 5 (because the significance level is less than the test level of 0.05 and the sign of regression coefficient is positive). It can be argued that since the significance level is less than 0.05, the null hypothesis is rejected and the alternative hypothesis is confirmed. In other words, there is a significant positive relationship between trust in social commerce and buying behavior.
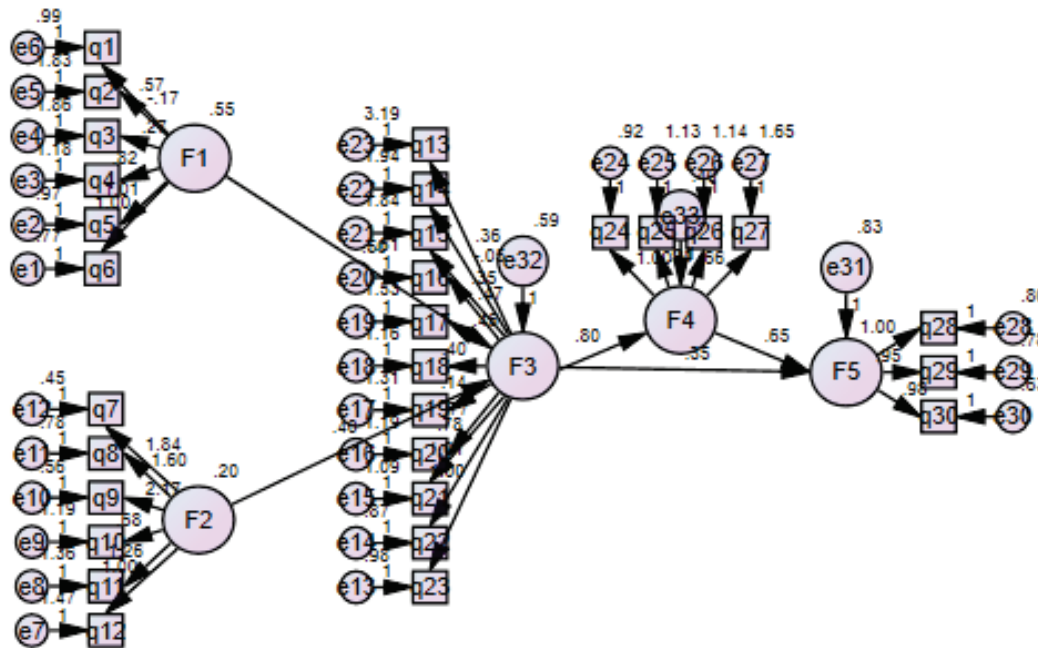

Figure 3 The values of the standard coefficients of the relationships between the variables in the structural model

Table 3 Results of the structural model fitting

Relationships between concepts and indicators in the model	Standard coefficient	t-value	Significance
There is a significant positive relationship between trust in social commerce and e-commerce satisfaction.	0.294	5.238	0.000
There is a significant positive relationship between trust in social commerce and buying behavior.	0.673	7.474	0.000
There is a significant positive relationship between e-commerce satisfaction and buying behavior.	0.781	7.842	0.000
There is a significant positive relationship between social support and trust in social commerce.	0.099	2.688	0.000
There is a significant positive relationship between customer review quality and trust in social commerce.	0.315	5.008	0.000

Table 4 Model fit indices

Index	The desired range	Reported value
The goodness of fit index (GFI)	0.9 or higher	0.90
The softened fitness index (NFI)	0.9 or higher	0.90
The non-softened fitness index (NNFI)	0.9 or higher	0.91
The incremental fit index (IFI)	0.9 or higher	0.92
The comparative fit index (CFI)	0.9 or higher	0.91
The root mean square error of approximation (RMSEA)	Less than 0.1	0.043

Hypothesis 3: There is a significant positive relationship between e-commerce satisfaction and buying behavior.

H0: There is no significant positive relationship between e-commerce satisfaction and buying behavior.

H1: There is a significant positive relationship between e-commerce satisfaction and buying behavior.

According to the table above, the standard regression coefficient is 0.781 and the t-value is 7.842, indicating that e-commerce satisfaction has a significant direct effect on buying behavior at a significant level of 5 (because the significance level is less than the test level of 0.05 and the

sign of regression coefficient is positive). It can be argued that since the significance level is less than 0.05, the null hypothesis is rejected and the alternative hypothesis is confirmed. In other words, there is a significant positive relationship between e-commerce satisfaction and buying behavior.

Hypothesis 4: There is a significant positive relationship between social support and trust in social commerce.

H0: There is no significant positive relationship between social support and trust in social commerce.

H1: There is a significant positive relationship between social support and trust in social commerce.

According to the table above, the standard regression coefficient is 0.099 and the t-value is 2.688, indicating that social support has a significant direct effect on trust in social commerce at a significant level of 5 (because the significance level is less than the test level of 0.05 and the sign of regression coefficient is positive). It can be argued that since the significance level is less than 0.05, the null hypothesis is rejected and the alternative hypothesis is confirmed. In other words, there is a significant positive relationship between social support and trust in social commerce.

Hypothesis 5: There is a significant positive relationship between customer review quality and trust in social commerce.

H0: There is no significant positive relationship between customer review quality and trust in social commerce.

H1: There is a significant positive relationship between customer review quality and trust in social commerce.

According to the table above, the standard regression coefficient is 0.315 and the t-value is 5.008, indicating that customer review quality has a significant direct effect on trust in social commerce at a significant level of 5 (because the significance level is less than the test level of 0.05 and the sign of regression coefficient is positive). It can be argued that since the significance level is less than 0.05, the null hypothesis is rejected and the alternative hypothesis is confirmed. In other words, there is a significant positive relationship between customer review quality and trust in social commerce.

10 CONCLUSION

According to the results, Hypothesis 1 that there is a significant positive relationship between trust in social commerce and e-commerce satisfaction is confirmed due to having a significance level of less than 0.5. As a result, it can be argued that there is a significant positive relationship between trust in social commerce and e-commerce satisfaction. Moreover, Hypothesis 2 that there is a significant positive relationship between trust in social commerce and buying behavior is confirmed. Therefore, it can be argued that there is a significant positive relationship between trust in social commerce and buying behavior. The results also indicate that Hypothesis 3 that there is a significant positive relationship between e-commerce satisfaction and buying behavior is confirmed due to having a significance level of less than 0.05. Therefore, it can be argued that there is a significant positive relationship between e-commerce satisfaction and buying behavior. Based on the results, Hypothesis 4 that there is a significant positive relationship between social support and trust in social commerce is confirmed. Therefore, it can be argued that there is a significant positive relationship between social support and trust in social commerce. Furthermore, Hypothesis 5 that there is a significant positive relationship between customer review quality and trust in social commerce is confirmed due to having a significance level of less than 0.05. Therefore, it can be argued that there is a

significant positive relationship between customer review quality and trust in social commerce.

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