

Identifying the Impact of Technology Beliefs on Iranian Consumers' Intention to Use Online Shopping through Mediating Roles of Technology Attitudes and Trusting Attitudes: Structural Equation Modeling Approach

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ABSTRACT

Iranian Consumers' intention to use online shopping is increasing and its trend is positive despite of US economic and financial sanctions (Khiabani et al. 2016). The primary purpose of this article is to determine the impact of technology beliefs on consumers' intention to use online shopping through mediating roles of technology attitudes and trusting attitudes in Tehran (capital city of Iran). Research model consists of four latent variables which are technology beliefs, technology attitudes, trusting attitudes, and consumers' intention. In order to achieve research objectives, author took quantitative method including distribution of 169 questionnaires among consumers who had experience to purchase through online in Tehran, Iran; all of which were returned. Data analysis is using a sound methodology which is structural equation modeling (SEM) via analysis of moment structure (AMOS). Firstly, reliability tests and factor analysis with principal extraction method (PCA) in IBMSPSS were conducted in order to ensure internal consistency, normality of the collected data, adequacy of sample size, and suitability of correlation matrix and anti-image matrices for factoring. Secondly, confirmatory factor analysis (CFA) was run in AMOS with two-step strategy in order to achieve adequate overall model fit to collected data and hypotheses testing. Results revealed that technology attitudes and trusting attitudes mediate the relationship between technology beliefs and Iranian consumers' intention to use online shopping with significant standardized regression weights equal with .697. Online vendors in Iran especially Tehran can benefit from findings of this research. Hopefully, this research will be useful for scholars and academicians who are concerned about this research era.

Keywords: Consumers' intention to use online shopping, technology beliefs, technology attitudes, trusting attitudes, Tehran, Iran, structural equation modeling

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1. INTRODUCTION

E-commerce is a new form of business and it has attracted consumers' intention through all over the world. Due to nature of e-commerce which is based on facelessness and intangibility, people are reluctant to engage in this form of business. Therefore, managers in the context of e-commerce should take a logical step and implement a strategy in order to motivate people to engage in e-commerce. According to the recently published articles such as (Ho and Chen 2014, Khiabani et al. 2016), trust plays as pivotal role in e-commerce and building convenient atmosphere for engaging users' website in this new form of business. As stated by (Chen 2009, Ho and Chen 2014), Trust perspectives are technology beliefs, trusting beliefs, and social beliefs. In one sentence, trust perspectives are salient determinants of consumers' intention to purchase through online. Consumers' intention is significant for online vendors because engagement of users will bring more revenue and profitability for online vendors.

Based on (Pavlou 2003), the importance of internet environments is related to the acceptance level of e-commerce and consumer purchase intention. A consumer evaluates a web store through the trust which can positively influence her/his attitudes toward online purchasing at the site; while the attitudes affect her/his purchase intention (Wang 2002). As many studies conducted by researchers in this area, it can be said that consumer's intention to use online shopping is so important in new commercial world.

Many studies have been conducted on the relationship among trust perspectives, technology attitudes, trusting attitudes, and consumers' intention to use online shopping and the consistencies amongst mentioned variables have been investigated by scholars such as (Davis 1989, Venkatesh and Davis 2000, Corbitt, Thanasankit et al. 2003, Gefen, Karahanna et al. 2003, Venkatesh, Morris et al. 2003, Koufaris and Hampton-Sosa 2004, Venkatesh and Bala 2008, Ha and Stoel 2009, Çelik and Yilmaz 2011, Ho and Chen 2014)

Besides, positive trend of online shopping in Tehran, Iran has been stated in the research by (Khiabani et al. 2016) and published statistics provided by Central Bank of Iran on Spring 2016 which represents positive rate of growth in online transactions in Iran especially Tehran. This mentioned issue and importance of studies in this research era has been motivated author of this article to conduct present study in order to identify the effect of technology beliefs on Iranian consumers' intention to use online shopping through two mediators which are technology attitudes and trusting attitudes. It is noteworthy that research model was developed using complete Pattern for statistical mediation analysis introduced by (MacKinnon 2008) and lack of study to date has addressed a study on developed research model in this study in Tehran, Iran and primary research objective of this article.

In the present study, author goes through explanations of latent variables and theories which support consistencies among latent variables of developed research model. Then, collected data will be analyzed through SEM-AMOS and finally, major conclusions, implications, academic contributions, and recommendations for future studies will be stated.

2. LITERATURE REVIEW

2.1 Technology Beliefs

As state by (Ho and Chen 2014), according to the technology acceptance model (TAM) introduced by (Venkatesh and Davis 2000, Venkatesh and Bala 2008), technology beliefs consists of two salient factors which are perceived ease of use (PEOU) and perceived usefulness (PU) which will be defined as following:

PEOU is defined as “the degree to which a person believes that using an information technology (IT) will be free of effort (Davis 1989).

PU is defined as “the degree to which one believes that using IT or technology will enhance his/her performance (Davis 1989, Ho and Chen 2014)

2.2 Technology Attitudes

In the study by (Ahn, Ryu et al. 2007), technology attitudes was defined as attitudes towards new technology or IT, when using online shopping is a good, wise, pleasant, positive, or appealing idea for user. (Ho and Chen 2014) defined technology attitudes as “attitudes to use online shopping”. Thus, author of this article can conclude that technology attitudes is defined as the degree of a person’s attitude or attribute towards IT and adoption of new technology, when purchasing and having experience with it; is a good, wise, pleasant, positive, or appealing idea for him/her.

2.3 Trusting Attitudes

According to a relatively study by (Ajzen and Fishbein 1975), Individual beliefs about behavior and its consequences, and the importance of these beliefs are considered as attitude. Trusting attitudes are interpreted as a positive or negative feelings of consumers regarding making a purchase (Crespo and del Bosque 2010). Based on (Bobbitt and Dabholkar 2001), consumer’s trust and attitude indicate willingness of consumer to establish and even continue their relationship with the company more firmly.

The importance of consumer attitudes comes from the lines of relative past studies. If consumers have a positive experience from online shopping, it can influence consumer’s attitudes towards e-commerce (Crespo and del Bosque 2010). Then, they added that online risk perception as a traditional and main obstacle to internet shopping should be reduced so, the efforts of online companies should be in the way of promoting user’s trust in e-transaction. Further, online shopping behaviors depend on the possible increase in the degree of customer trust on online system (Suwunniponth 2014). (Suwunniponth 2014) concluded from the results of the study that trust and technology acceptance antecedents strongly related to attitudes and consumer’s intention behavior to purchase. To sum up, online trust has positive influence on purchase intentions (Pavlou 2003, Suwunniponth 2014).

2.4 Consumer's Intention to Use Online Shopping

During the past decade, one of the most important subject in the field of e-commerce has been online shopping behavior of consumers (Chen 2009). Although researchers mentioned online shopping behavior in different ways but it can be said that the concept of all of them is the same. According to (Ho and Chen 2014), using online stores from the purchase stage to logistics by consumers is defined as "online shopping". This specific behavior refers to the process of buying services or products via the internet (Liang and Lai 2000). Also, (Li and Zhang 2002) believed that online shopping attitude mentions consumer's psychological state to make a purchase on the internet. Other definition is stated by (Pavlou 2003), the willingness and intention of consumer to become involved in online transactions is defined as purchase intention.

2.5 Theoretical Foundation

At this stage, it is notable to highlight that developed research model in this article and consistencies among latent variables should be supported by theoretical knowledge. Underlying theories are TAM and consumers' trust in online shopping which will be explained in depth as indicated below.

2.5.1 TAM

TAM was developed to predict individual adoption and use of new ITs (Venkatesh and Bala 2008). As stated by (Venkatesh and Bala 2008), TAM posits that individuals' behavioral intention to use an IT is determined by two beliefs which are PEOU and PU (Venkatesh and Bala 2008). Therefore, it can be said that technology beliefs is a function of two factors as stated earlier. In general, it can be stated that technology beliefs determine a person's attitude toward using new IT or technology. By reviewing relevant literature, it can be asserted that technology beliefs have been regarded as the core concepts in TAM and are used to explain users' attitudes and behavioral intention to new technology (Davis 1989, Venkatesh and Davis 2000, Ho and Chen 2014).

In addition, studies by (Venkatesh and Davis 2000, Venkatesh, Morris et al. 2003, Venkatesh and Bala 2008, Ha and Stoel 2009, Çelik and Yilmaz 2011, Ho and Chen 2014) revealed consistencies and relationship among technology beliefs, technology attitudes, and behavioral intention of consumers to purchase through online in the context of e-commerce.

To sum up, author of this article can assert that based on TAM; there are consistencies and significant relationship among technology beliefs, technology attitudes, and consumers' intention to use online shopping.

2.5.2 Consumers' Trust in Online Shopping

As stated by (Ho and Chen 2014), trust perspectives are trusting beliefs, technology beliefs, and social beliefs. In some studies by scholars such as (Corbitt, Thanasankit et al. 2003, Gefen,

Karahanna et al. 2003, Koufaris and Hampton-Sosa 2004, Pavlou and Fygenon 2006, Kim, Ferrin et al. 2008, Ho and Chen 2014), it has been proven that based on consumers' trust in online shopping; there are positive relationship and consistencies among technology beliefs in TAM and users' trust. Thus, author of this article can conclude that there is existence of relationship and consistencies among technology beliefs and its factors in TAM as mentioned earlier, trusting attitudes and consumers' behavioral intention to use online shopping according to the theory of consumers' trust in online shopping.

2.6 Developed Research Model

It is noteworthy that factors of technology beliefs are reflexive or reflective indicators. Mediating roles of trusting attitudes and technology attitudes on the relationship between technology beliefs and consumers' intention to use online shopping have been investigated by previous scholars (Venkatesh and Bala 2008, Ho and Chen 2014). Thus, constructed research model in this article is supported by theoretical knowledge. Besides, it is notable that in the research model used in the study, technology beliefs is exogenous variable and technology attitudes, trusting attitudes and consumers' intention are endogenous variables. It can be stated that the developed research model as illustrated in "Fig. 1" is a kind of recursive one. Moreover, author of this article used complete Pattern introduced by (MacKinnon 2008) for statistical mediation analysis.

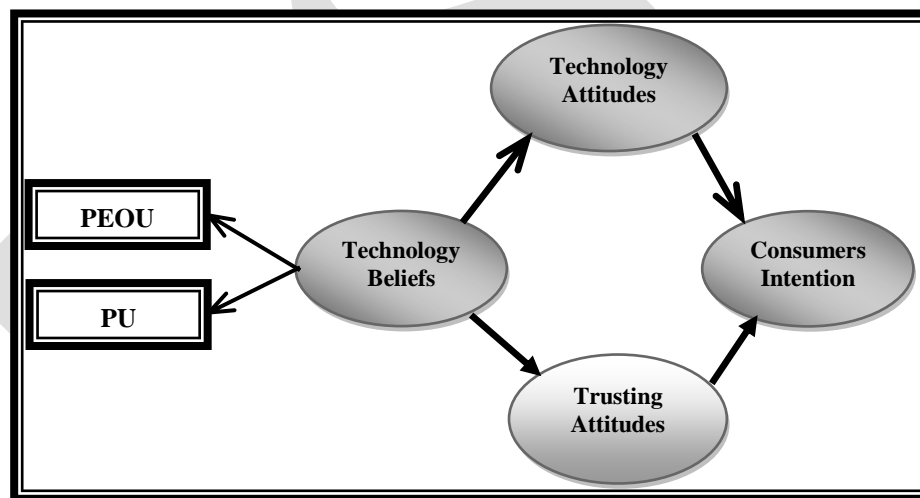


Fig. 1: Developed Research Model Based on (Ho and Chen 2014) and (Venkatesh and Bala 2008)

2.7 Formulation of Hypotheses

Research hypotheses were formulated in relationship with developed research model which is supported by theoretical foundation as mentioned earlier. Since, SEM technique will be utilized in order to hypotheses testing; therefore, null hypothesis should be supported which is reverse testing procedure in SEM (Blunch 2012).

H₀₁: Technology beliefs influence technology attitudes directly and positively.

H₀₂: Technology attitudes influence consumers' intention to use online shopping directly and positively.

H₀₃: Technology beliefs influence trusting attitudes directly and positively.

H₀₄: Trusting attitudes influence consumers' intention to use online shopping directly and positively.

H₀₅: Trusting attitudes and technology attitudes mediate the relationship between technology beliefs and consumers' intention to use online shopping indirectly.

3. RESEARCH METHODOLOGY

3.1 Questionnaire Development

Questionnaire development is based on exogenous and endogenous variables. A technology belief is exogenous variable and other latent variables which are technology attitudes, trusting attitudes, and consumers' intention to use online shopping are endogenous variables. The questionnaire for this research has been adapted from the scales introduced by previous scholars involving 21 items. All questions or items were rated on a five-point frequency-based scale (1= strongly disagree, 2= disagree, 3= Neutral, 4= agree, 5= strongly agree). Table 1 contains related information.

Table 1: Description of Questionnaire for Exogenous and Endogenous Variables

Name of Exogenous and Endogenous Variables	No. of Items and Supporting References
Technology Beliefs (involving two factors which are PEOU and PU)	9 Items adapted scale from (Ahn, Ryu et al. 2007)
Technology Attitudes	5 items adapted scale from (Ahn, Ryu et al. 2007)
Trusting Attitudes	3 Items adapted scale from (Fuller, Serva et al. 2010)
Consumers' Intention	4 Items adapted scale from (Ahn, Ryu et al. 2007)

3.2 Data Collection Procedure

Data collection for current research was a kind of cross-sectional data survey; because it was conducted during August-September 2016 in a period of time. This procedure was done by the author of this article. Survey questionnaires were printed out and distributed by probability random sampling technique among Iranian consumers located in Tehran who had experience through online shopping. In total, 169 valid copies were returned. 169 valid copies were sufficient for data analysis due to time constraint for finalizing present research and proceeding for data analysis through AMOS Program because the number of questionnaire's items were 21. (Arbuckle 1997, Arbuckle and Wothke 1999, Arbuckle 2010) stated that five-times of number of

items of survey questionnaire or for each item at least 7 respondents are enough to run the model in AMOS Program.

4. DATA PROCESSING AND RESULTS

4.1 Reliability Test

Cronbach's alpha coefficient represents internal consistency of scale and it should be above .60 for exploratory research and it should be above .70 for confirmatory research. (Nunnally, Bernstein et al. 1967, Nunnally 1978, Peter 1979, Nunnally 1994, Nunnally and Bernstein 1994, Gefen, Straub et al. 2000). Based on (Cronbach 1951), Cronbach's alpha value above .60 is acceptable. Reliability tests were conducted for technology beliefs and each of its factors separately, technology attitudes, trusting attitudes, and consumers' intention respectively. Table 2 contains relevant information. As can be seen all values are well above 0.7 and these results support that current study is reliable to conduct.

Table 2: Reliability Test

Factor or Latent Variable	Cronbach's alpha Coefficient	No. of Items
PEOU	.871	4
PU	.859	5
Technology beliefs	.891	9
Technology attitudes	.918	5
Trusting attitudes	.873	3
Consumers' intention	.893	4

4.2 Factor Analysis with PCA Extraction Method Using SPSS

Factor Analysis (FA) was run in SPSS version 22 statistical software with (PCA) extraction method for all items of survey instrument. According to the (Coakes and Steed 2009), when the considerable numbers of correlations in correlation matrix and anti-image matrices exceed .3, therefore; the matrix is suitable for factoring. According to the results of FA in this study, matrix is suitable for factoring. Since length and width of tables are out of limitations of this article, mentioned tables will be provided by author upon the readers' request.

Based on (Coakes and Steed 2009), and (Bartlett 1954, Kaiser 1974), Kaiser-Meyer-Olkin Measure of Sampling Adequacy (KMO-MSA) should be far greater than **0.6**. As can be seen in table 3, the obtained result related to (KMO-MSA) is equal with **.893**. Besides, it is obvious that Bartlett's Test of Sphericity is **3058.426** which are significant and P-value is equal with **.000** and less than **0.05**.

According to the (Hair, Sarstedt et al. 2012); communality item should be above **0.5**. Table 4 which represents communality table, all items' values of survey questionnaire is above **0.5**.

Table 3: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.893
Bartlett's Test of Sphericity	Approx. Chi-Square	3058.426
	DF	210
	Sig.	.000

Table 4: Communalities

	Initial	Extraction
PEOU1: It is easy for me to learn how to use online shopping, even as the first time.	1.000	.755
PEOU2: It will be impossible to make an online transaction without expert help.	1.000	.646
PEOU3: Using online shopping do not requires a lot of mental effort.	1.000	.699
PEOU4: It is easy for me to become skillful at using online shopping.	1.000	.727
PU1: "Online shopping" is useful to search and buy something I need.	1.000	.666
PU2: Using online shopping enables me to search and buy something more quickly.	1.000	.720
PU3: Using online shopping helps me to get better purchasing decision.	1.000	.726
PU4: Using online shopping improves my task quality.	1.000	.798
PU5: Using online shopping increases my task productivity.	1.000	.805
ATT1: Using online shopping is a good idea.	1.000	.778
ATT2: Using online shopping is a wise idea.	1.000	.751
ATT3: Using online shopping is a pleasant idea.	1.000	.774
ATT4: Using online shopping is a positive idea.	1.000	.757
ATT5: Using online shopping is an appealing idea.	1.000	.641
TRU1: If I needed to buy something in a hurry, I would feel comfortable depending on website that I have frequently used.	1.000	.739
TRU2: I feel that I could count on website that I have frequently used to help me purchase something I need.	1.000	.855
TRU3: If I needed the best item on a specific product line, I would be willing to rely on the information provided by online vendor.	1.000	.783
INTEN1: I will keep using online shopping in the future.	1.000	.591
INTEN2: I will frequently use online shopping as a shopping medium in the future.	1.000	.802
INTEN3: I will frequently use online shopping rather than traditional one for purchasing product in the future.	1.000	.783
INTEN4: I will recommend others to use online shopping.	1.000	.778
Extraction Method: Principal Component Analysis.		

4.3 SEM Technique via AMOS Version 22

SEM is a powerful technique for data analysis and well suited for analyzing a broad spectrum of problems in many disciplines (Blunch 2012). The advantage of CFA is that it allows for testing hypotheses about a particular factor structure (Albright 2006). CFA is a special case of the SEM, also known as the covariance-base (CB) structure. There are two strategy which are one-step strategy and two-step strategy. In one-step strategy, the measurement model and structural model will be run at a time. But in the two-step strategy, firstly measurement model will be run, and then structural model will be run. In the present study, CFA in AMOS will be run using two-step strategy introduced by (Anderson and Gerbing 1988). CFA with maximum likelihood (ML) estimation method was run for the four latent variables which are technology beliefs, technology attitudes, trusting attitudes and consumers' intention and their factors or items. "Fig. 2" illustrates first run of CFA:

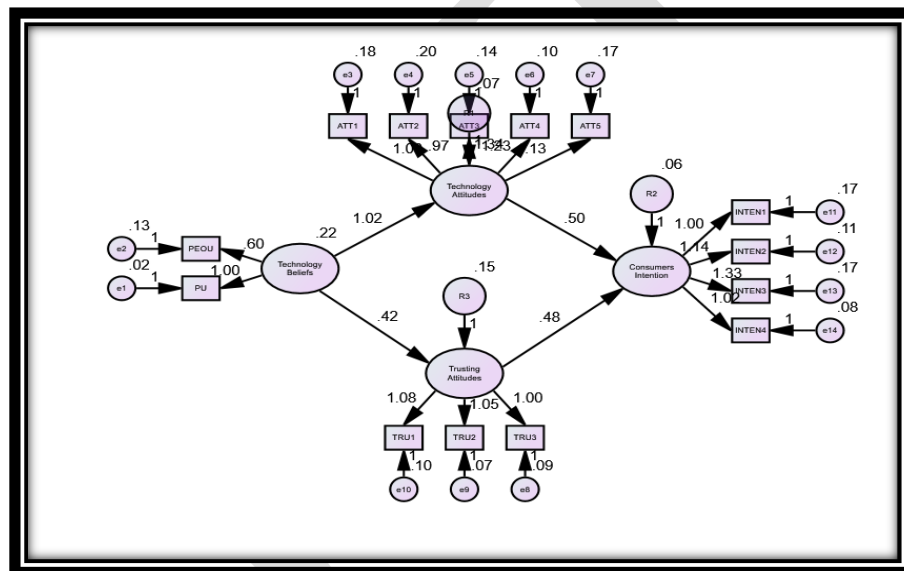


Fig. 2: Path Diagram of CFA for the First Run in AMOS Graphic

Modification indices make suggestions about loosening certain model parameters in order to improve the overall model fit. As long as any decisions made on the basis of modification indices are theoretically meaningful and do not result in an unidentified model, they can be helpful in improving model specification. (Albright 2006, Albright and Park 2009). Based on modification indices after running CFA, author drew covariance which is a two-headed arrow between e3 and e4, e4 and e7, and finally e12 and e13. The path diagram related to second run of CFA in AMOS has been illustrated in "Fig 3".

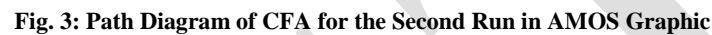


Fig. 4: Path Diagram of CFA for the Third Run in AMOS Graphic

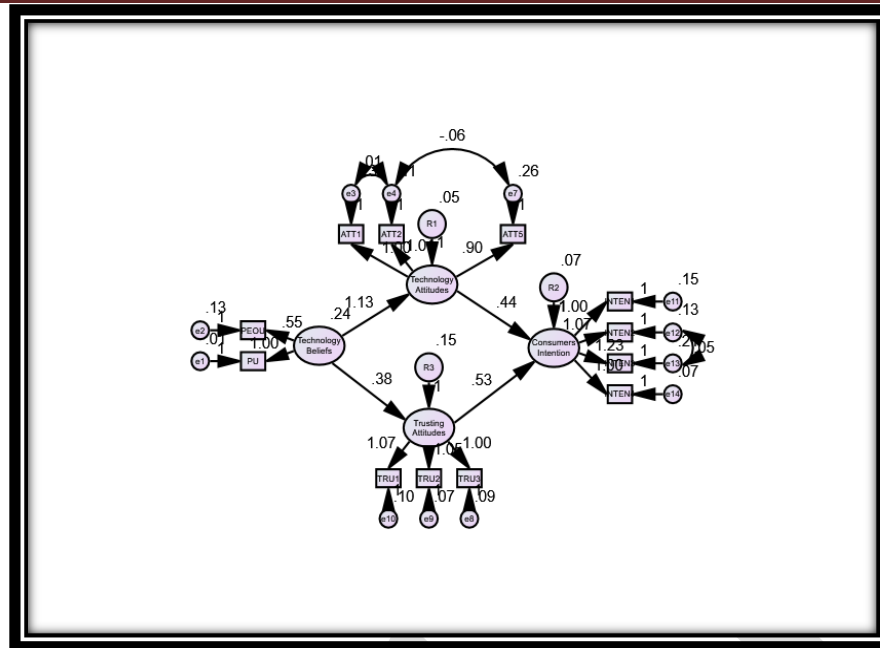


Fig. 5: Path Diagram of CFA for the Fourth Run in AMOS Graphic

Goodness of fit index (GFI) should exceed .9 for a good model. AGFI (adjusted GFI) is an alternate GFI index in which the value of the index is adjusted for the number of parameters in the model. The Normed Fit Index (NFI) Value of .9 or higher indicates good fit. The Comparative Fit Index (CFI) ranges from 0 to 1, like the NFI, .9 or higher indicates good fit. The Root Mean Square Error of Approximation (RMSEA) estimates lack of fit compared to the saturated model. RMSEA of .05 or less indicates good fit, and .08 or less adequate fit (Wuensch 2008, Blunch 2012). Conclusion is that the overall model fit appears adequate. The χ^2 test yields a value of **103.603** which, evaluated with **47** degrees of freedom, has a corresponding p-value of **.000**. Failure to reject the null is therefore a sign of a good model fit that is reverse testing procedure in SEM. (Blunch 2012, Byrne 2013). Additionally the RMSEA is **.085**. Results of fit measures or indices suggest that the model has an adequate fit to the collected data. Table 5 contains relevant information. Additionally, model fit summary of AMOS output tables has been appended in this article.

Table 5: Fit Measures of CFA after the Fourth Run

χ^2	DF	χ^2/DF	RMSEA	GFI	AGFI	NFI	CFI
103.603 P-value=.000	47	2.204	.085	.909	.849	.931	.961

4.3.1 Status of Developed Hypotheses

The results of path coefficient among latent variables indicate that relationship related to structural model for all four latent variables are positive and significant. Therefore, it can be stated that **H₀₁**, **H₀₂**, **H₀₃**, and **H₀₄** are supported. Tables 6 and 7 contain information relevant to regression weights and standardized regression weights.

Table 6: Regression Weights for Default Model

	Path Coefficient		Estimate	S.E.	C.R.	P	Label
Technology Attitudes	<---	Technology Beliefs	1.133	.087	12.963	***	
Trusting Attitudes	<---	Technology Beliefs	.382	.073	5.257	***	
Consumers Intention	<---	Technology Attitudes	.439	.061	7.181	***	
Consumers Intention	<---	Trusting Attitudes	.528	.083	6.348	***	
PU	<---	Technology Beliefs	1.000				
PEOU	<---	Technology Beliefs	.552	.063	8.708	***	

Table 7: Standardized Regression Weights for Default Model

Path Coefficient			Estimate
Technology Attitudes	<---	Technology Beliefs	.931
Trusting Attitudes	<---	Technology Beliefs	.431
Consumers Intention	<---	Technology Attitudes	.533
Consumers Intention	<---	Trusting Attitudes	.467
PU	<---	Technology Beliefs	.985
PEOU	<---	Technology Beliefs	.597

4.3.2 Testing Mediation Effects of Trusting Attitudes and Technology Attitudes

As can be seen in table 8, standardized regression weight for mediating roles of trusting attitudes and technology attitudes is equal with **.697** which is positive and significant coefficient. Therefore, it can be concluded that technology attitudes and trusting attitudes play as mediators for relationship between technology beliefs and Iranian consumers' intention to use online shopping. Conclusion is that H_{05} is strongly supported.

Table 8: Standardized Indirect Effect for the Default Model

Path Coefficient	Technology Beliefs	Trusting Attitudes	Technology Attitudes	Consumers Intention
Trusting Attitudes	.000	.000	.000	.000
Technology Attitudes	.000	.000	.000	.000
Consumers Intention	.697	.000	.000	.000

5. DISCUSSION AND CONCLUSION

5.1 Major Conclusions

This research was a confirmatory one in order to determine the effect of technology beliefs on consumers' intention to use online shopping through mediating roles of technology attitudes and trusting attitudes in Tehran. Iran. Findings of this study confirmed that technology attitudes and trusting attitudes play as mediators for the relationship between technology beliefs and Iranian consumers' to use online shopping and they mediate the relationship with **.697** standardized regression weights which is significant. Moreover, results supported that technology beliefs has determination on technology attitudes and trusting attitudes with standardized regression weights

of **.931** and **.431** respectively which are also considerable. Additionally, technology attitudes and trusting attitudes had prediction on Iranian consumers' intention to use online shopping with **.533** and **.467** standardized regression weight respectively. The results were in line with previous studies such as (Ho and Chen 2014).

Finally, based on findings; technology beliefs had a positive and high significant relationship with its two factors especially PU which had a path coefficient of **.985**. It is worthwhile mentioning that path coefficient related to technology beliefs and PEOU was equal with **.597** which is also salient. Findings were consistent with researches such as (Venkatesh and Davis 2000, Venkatesh, Morris et al. 2003, Venkatesh and Bala 2008) and especially highly cited study by (Davis 1989) under title of "PU, PEOU, and User Acceptance of IT" of which has been cited 30739 times by scholars (as indicated by Google Scholar on date 13th September 2016).

5.2 Implications for Online Vendors and Managers

This article will be really practical for online vendors especially in Tehran, Iran. It brings helpful insights into managers' perspectives and online vendors to have more concentration on PU and PEOU and accommodation of better facilities and implementation of a strategy for Iranian users who have intention to purchase through online in order to enhance Iranian users' performance and convenience while users are interested to have experience with IT and adoption of new technology. It is notable to highlight that this strategy will lead to more profitability and revenue for online vendors.

5.3 Academic Contributions to the Existing Knowledge

In general, this confirmatory research was an extension to previous studies such as (Venkatesh and Bala 2008) and other studies as mentioned in section (5.1). The significant academic contribution of this study is basing data analysis on SEM technique and processing data via AMOS Program Version 22 which is highly sophisticated statistical software and representing trend of data analysis step by step for further clarification of readers of this article. Previous studies' data have been analyzed through Partial Least Squares (PLS) and LISREL which are not up-to-date these days among scholars except study by (Ho and Chen 2014). Another contribution was using complete Pattern introduced by (MacKinnon 2008) for statistical mediation analysis in order to develop model of present article.

5.4 Limitations and Avenues for Future Studies

As the nature of each study, this research had also some limitations. Firstly, it could be extended to cover whole of Iran. Secondly, data collection involved 169 Iranian users located in Tehran due to time constraints for finalizing this article. It is highly recommended for future studies to gather much data and considering larger sample size or statistical population. It is also suggested that scholars to process data with other statistical software such as EQS, and OpenMx software which is used for advanced SEM.

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APPENDICES

Model Fit Summary

CMIN

Model	NPAR	CMIN	DF	P	CMIN/DF
Default model	31	103.603	47	.000	2.204
Saturated model	78	.000	0		
Independence model	12	1503.982	66	.000	22.788

RMR, GFI

Model	RMR	GFI	AGFI	PGFI
Default model	.022	.909	.849	.548
Saturated model	.000	1.000		
Independence model	.181	.256	.121	.216

Baseline Comparisons

Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	.931	.903	.961	.945	.961
Saturated model	1.000		1.000		1.000
Independence model	.000	.000	.000	.000	.000

Parsimony-Adjusted Measures

Model	PRATIO	PNFI	PCFI
Default model	.712	.663	.684
Saturated model	.000	.000	.000
Independence model	1.000	.000	.000

NCP

Model	NCP	LO 90	HI 90
Default model	56.603	30.951	89.990
Saturated model	.000	.000	.000
Independence model	1437.982	1315.464	1567.889

FMIN

Model	FMIN	F0	LO 90	HI 90
Default model	.617	.337	.184	.536
Saturated model	.000	.000	.000	.000
Independence model	8.952	8.559	7.830	9.333

RMSEA

Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	.085	.063	.107	.006
Independence model	.360	.344	.376	.000

AIC

Model	AIC	BCC	BIC	CAIC
Default model	165.603	170.803	262.629	293.629
Saturated model	156.000	169.084	400.132	478.132
Independence model	1527.982	1529.995	1565.541	1577.541

ECVI

Model	ECVI	LO 90	HI 90	MECVI
Default model	.986	.833	1.184	1.017
Saturated model	.929	.929	.929	1.006
Independence model	9.095	8.366	9.868	9.107

HOELTER

Model	HOELTER .05	HOELTER .01
Default model	104	118
Independence model	10	11