

Investigating and prioritizing the effective factors on online impulse buying in electronic commerce (case study: discount group sites in Iran)

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Abstract

This paper explores the concept of online impulse purchasing behavior. Drawing upon cognitive emotion theory, we developed a model and showed how beliefs about functional convenience (online store merchandise attractiveness and ease of use) and about representational delight (enjoyment and website communication style) related to online impulse buying. The model was tested using survey data from 410 customers of discount group websites in IRAN. Our results showed significant effects of merchandise attractiveness, enjoyment, and online store communication style, ease of use mediated by consumers' emotions. And all of hypothesis accepted in this article. And according to Freidman test the most important factors that effect on emotion then in impulse buying is merchandise attractiveness then enjoyment, after these two factors that are important in order are, website communication style and ease of use, so the designers of discount group websites should attention to these factors that cause impulse buying.

1.Introduction

Impulse buying is a ubiquitous and unique aspect of consumers' lifestyle. Retailers realize the importance of this phenomenon, and through store layouts, product packaging, and in store promotions, they have tried to get consumers to be impulsive in stores (Dholakia 2000). Over the years, impulse buying has also been made easier by innovations, such as credit cards, telemarketing, and home shopping networks (Rook 1987). Consequently, impulse buying accounts for a large volume of product sales every year (Hausman 2000). Because of its prevalence, researchers from different disciplines, such as consumer behavior and psychology, have shown interest in studying this behavior. A review of this body of knowledge indicates that impulse buying has been mainly studied in a traditional commerce setting.

In the last decade, rapid developments in information technology have substantially changed the landscape of consumer behavior. The availability of 24-hour retailing through the Internet has brought about an increase in online retailing and inevitably, an increase in impulse buying. With the Internet, consumers' buying opportunities have expanded through an increased accessibility to products and services and the increased ease to make purchases. Moreover, this new mode of shopping often eliminates the constraints of time and space that are often experienced by shoppers in a traditional commerce context (Eroglu et al. 2001). As a consequence, Internet shoppers can be more impulsive than traditional shoppers (Donthu and Garcia 1999). Indeed, there is preliminary evidence that indicates that impulse buying is rampant in an online context (Greenfield 1999; Li et al. 2000). The distinct characteristic of an electronic commerce (e-commerce) context, in contrast to a traditional commerce setting, is that information technology (IT) mediates the relationship between the online consumer and the online retailer. Based on the preliminary evidence that this behavior is prevalent in an online context, an opportunity exists to identify the characteristics of the web interface that influence impulse buying.

To date, few researchers have studied online impulse purchase behavior. For example, LaRose (2001) identified the features that influence unregulated buying behavior at popular websites, but provided no empirical evidence for his propositions. Similarly, Koufaris and colleagues (2001-2002) and Koufaris (2002) examined unplanned purchases on the Internet, but their results were not conclusive. More recently, Dutta and colleagues (2003) examined how implementation characteristics of online payment processes affect impulsive buying behavior, but their findings were limited because of a small sample size. A common theme emerging from these studies is a call for future research to understand the online impulse purchase behavior. For instance, Koufaris and colleagues (2001-2002) call for further research to "understand how on-line environments can be best designed to increase unplanned purchases. The current research tries to shed some light on this behavior. As a first step in a program of research, this research is intended to focus on the phenomenon of online impulse buying

1-1. Defining Impulse Buying

In the beginning, researchers were primarily interested in understanding impulse buying. Researchers have invested considerable effort toward defining this interesting and complex phenomenon. The understanding of impulse buying has also been greatly improved through the identification of the different types of this behavior. Moreover, a distinction has been made between impulse buying and other forms of unregulated buying to gain a more in-depth understanding of this phenomenon. The focus of early studies was also on providing measures which can be used to capture this interesting behavior. In the next sections, a review of existing impulse buying literature is provided for a better understanding of the phenomenon.

1-1-1. Conceptual Definition of Impulse Buying

Several researchers have proposed varying conceptual definitions of impulse buying (e.g., Rook 1987; Rook and Hoch 1985; Weinberg and Gottwald 1982). Rook (1987), for example, defined it as an unplanned purchase which occurs when a consumer experiences positive affect when exposed to a stimulus. Piron (1991) conducted a review of these definitions and concluded that none of them fully described this interesting and complex phenomenon. He identified thirteen dimensions which were common across these various definitions of impulse buying proposed by different researchers. These thirteen dimensions are summarized in Table 1-1.

Piron (1991) integrated these dimensions and proposed a comprehensive definition of impulse buying, which is as follows:

“Impulse buying is a purchase that is unplanned, the result of an exposure to a stimulus, and decided on-the-spot. After the purchase, the customer experiences emotional and/or cognitive reactions”

From this definition, the first characteristic of an impulse buying is that it is an *unplanned purchase*. The consumer decides to purchase the object on the spur of the moment, not in response to a previously recognized problem or an intention that was formed prior to being in the shopping environment (Piron 1991). The second characteristic of impulse buying is the *exposure to the stimulus*. According to the Merriam-Webster online dictionary, a stimulus is “something that rouses or incites to activity” or “an agent (as an environmental change) that directly influences the activity of a living organism or one of its parts” (Merriam-Webster On Line). Thus, the stimulus can be considered as the catalyst which makes the consumer be impulsive. The stimulus can be a piece of clothing, jewelry, or candy. Store atmospherics, which can be considered as an important factor in predicting impulse buying, allows the marketer to position products in an enticing way to increase impulse buying (Dholakia 2000). The third characteristic of impulse buying is the *immediate* nature of the behavior. The consumer makes a decision on the spur of the moment without any evaluation of the consequences of making such a purchase (Piron 1991). Finally, the consumer experiences *emotional and/or cognitive reactions*, which can include guilt or disregard for future consequences.

2-1-1. Different Types of Impulse Buying

The understanding of impulse purchase was also greatly improved through the identification of the different types of impulse purchase by Stern (1962). According to him, there are four distinct types of impulse purchases, namely pure, reminder, suggestion, and planned impulse buying. *Pure impulse buying* occurs when consumers purchase products impulsively as defined above. This type of impulse purchase is a “novelty or escape purchase which breaks a normal buying pattern” (Stern 1962, p. 59). A *reminder impulse purchase* occurs when the consumer is reminded of the need to buy a product when he or she sees it (Stern 1962). The consumer may remember that he or she is running out of that product or may recall an advertisement about the item of interest, which sparks the impulse purchase. *Suggestion impulse purchase* is when a consumer sees a product and visualizes a need for it (Stern 1962). Finally, *planned impulse buying* is when consumers do not plan for their purchases, but search for and take advantage of promotions in the market (Nesbitt 1959).

The common link across these different types of impulse purchase is that the purchase is a result of an exposure to the stimulus (Piron 1991).

2. Measuring Impulse Buying

An area of research on impulse buying has focused on conceptualizing and measuring impulse buying. A list of the most common measures used is provided in Table 2.1.

The assumption behind these various measures is that some individuals tend to be more impulsive than others. Therefore, the aim of these measures has been to capture the consumer’s tendency to be impulsive. Consequently, these individuals who are impulsive will most likely be the ones engaging in an impulsive buying behavior.

3. Model construction and development of hypotheses

Fig3-1 shows our theoretical model, which is rooted in the literature on impulse buying and derives its theoretical structure from Cognitive Emotion Theory (CET). According to this, observing a stimulus and the consequent formation of evaluative perceptions causes emotions. Thus, beliefs can be assumed to precede emotions (reisenzin, 2009) This structure has been shown to be robust in many consumer emotion studies and is empirically favored over other views. We further proposed an emotion–action tendency link, because we expected that emotions led to impulsive action tendencies and thus to impulse buying (Frijda, 2010) Following the conceptualization of impulse buying in the consumer behavior literature, browsing behavior, urge to buy, and the overt impulse buying behavior were included as facets of impulsive actions that are determined by emotions.

3.1. The influence of online websites on emotion

Positive and negative effects are considered as two independent basic emotions that are universal across gender and age groups, and can be found in all cultures. We defined positive affect as the extent to which a person feels enthusiastic, excited, and inspired. Negative affect was defined as the extent to which a person feels distress, irritation, and disturbance. The emotion terms used here have been shown to be universal in consumption settings, such as online shopping (Ethier, 2008). We focused on the distinction between functional convenience (merchandise attractiveness; site ease of use) and representational delight beliefs (enjoyment; website communication style) in our study; it has been suggested that these website elements are likely to lead to impulsive buying behavior (Madhavaram, 2004). Merchandise attractiveness is defined here as the perception of the size and attractiveness of the assortment; it subsumes impressions of the number of products on a site, interesting offers, value for money, and whether products are aligned to fit the consumer’s interest. It has been suggested that this influences emotional response. In the online context, the link between special offerings and positive emotions (i.e., excitement) has been shown to occur in auctions (Bechere, 2004). We therefore argued that websites with products that are in the consumers’ interests and have interesting offers are likely to create positive emotions. Furthermore, we believed that good merchandise attractiveness will produce less negative emotion (irritation). Therefore:

H1a. There is a positive relationship between perceived online store merchandise attractiveness and positive affect.

H1b. There is a negative relationship between perceived online store merchandise attractiveness and negative effect.

The perceived ease experienced by online visitors in navigating the store is important. Ethier et al (2006) found that a positive evaluation of usability, including ease of use, had a positive impact on positive emotions and a negative impact on negative emotions. Therefore, we hypothesized:

H2a. There is a positive relationship between perceived ease of use and positive affect.

H2b. There is a negative relationship between perceived ease of use and negative affect.

Online store enjoyment can be stimulated by music in the background and visual fun effects; it can have a significant effect on positive emotions. Van Dolen et al (2008) showed that a fun website (i.e., one including comic strips, cartoons, etc.) may create positive affect. In addition, they demonstrated that fun aspects could offset negative effects. Therefore, we hypothesized:

H3a. There is a positive relationship between perceived shopping enjoyment and positive affect.

H3b. There is a negative relationship between perceived shopping enjoyment and negative effect.

Website communication style is another important factor: it is the subjective perception of the style in which the site communicates with and services its visitors. Rooted in store personnel literature (sparks, 2002), website communication style mirrors the “kindness” of the approach (calm instead of assertive), its social orientation (friendly, building relationships), and demonstration of expertise and competence (knowledge ability). We argued that consumers’ evaluations are influenced through exposure to a particular communication style due to a need for social presentation and cognitive consistency; individuals use socially induced cognitive and affective strategies to match the style of those with whom they interact. However, this influence may occur without conscious motivation. For instance individuals automatically imitate their social environment, they learn without deliberation through vicarious modeling. Applying the logic of social contagion to website–consumer

interactions, it seemed that consumers would respond in a similar way to the communication style of the website. Mccoll-Kennedy and Sparks (2003) indicated that a friendly and fair communication style led to more positive and less negative consumer evaluation. Thus, we argued that a calm, friendly, and knowledgeable style would trigger positive, affective based evaluations by customers with less distress. Therefore:

H4a. There is a positive relationship between perceived website communication style and positive affect.

H4b. There is a negative relationship between perceived website communication style and negative effect.

3.2. The influence of emotion on browsing

Browsing is in-store examination of a retailer's merchandise for recreational and informational purposes without an immediate intent to buy. Positive emotions have been found to positively influence browsing aspects like spending extra time on shopping. Huang showed that different emotional dimensions impacted exploration decisions and concluded that online environments that created pleasure encouraged exploration (Huang, 2005). Furthermore, she suggested that negative emotions like boredom will drive away consumers, and consequently negatively influence exploration behavior. Therefore, we hypothesized:

H5a. There is a positive relationship between positive affect and browsing.

H5b. There is a negative relationship between negative affect and browsing.

3.3. The influence of emotion and browsing on urge to buy and impulse buying

Several researchers have shown that affect influences impulse purchasing: when one is experiencing positive effect, one is more likely to engage in approach than avoidance behavior. Also the greater the positive emotion felt by an individual, the greater the likelihood of overspending and impulse buying (verplanken,2001). We therefore hypothesized:

H6a. There is a positive relationship between positive affect and urge to buy.

H6b. There is a negative relationship between negative affect and urge to buy.

The effect of browsing has been argued to be a central component in the unplanned buying process. If consumers browse longer, they will encounter more stimuli, increasing the likelihood of impulse buying (Rook,1987). Therefore, we hypothesized:

H6c. There is a positive relationship between browsing and urge to buy.

H6d. There is a positive relationship between urge to buy and impulse buy.

Figure3-1: the conceptual model of online impulse buying

4. Research Design

4-1.Sampling Technique

Randomly sampling technique with electronic questionnaire was used to sample 410 customers of discount group sites in Iran.

4-2.Analytical technique

Data obtained from the administered questionnaire were analyze in LISREL software. This study is descriptive-survey research that in the following stages to describe the relationship between know factors that associated with online impulse buying in discount group sites in Iran. And for gathering data, we use five-item questionnaire whit LIKERT scale. The reliability of the questionnaire is 0.886 in cronbach alpha.

Table 4-1:the reliability of our variables

4-3. Demographic Characteristics of Consumers

Table 4-2 gives information on the demographic characteristics of consumers. Majority of the respondents were females constituting 59%, while males constituted 41%. The table also shows that majority of the consumers were within the ages of 21 - 30 years (65%), while 25% representing 102 consumers were within the ages of 31-40, and 8% under 20 years, and also just 2% between 41 to 50. Information on the education of consumers depicts that 49% had bachelor education, 6% had primary school education, 37% had post-primary education, and 8% had Phd education, while 6.8 had postgraduate qualifications. and 36% of them were employer, and 36% student, 18% had free work, 4% had not any work, and 4% were housewife and 1% were retired, and from the view of internet using, 84% use daily of internet, and 15% two or three times in a week and 1% use of internet weekly.

Table4-2: Demographic Characteristics of Consumers

5. Hypothesis analyses

In below table, we can see the briefly name of our variables, we use SEM model for testing our hypothesis so, we use of LISREL software for analyses our hypothesis, and according our finding all of hypothesis accepted.

Table5-1.the brief name of variables

The below figure is the final model of our research that derived from LISREL software.

Figure 5-1: significance test

Figure 5-2: t-value, the approval result of final model of research

The below table is the final result of our hypothesis that derived from our research. SEM was applied to estimate the structural model and test the hypotheses. Our results indicated a good fit with the data ($\chi^2 = 901$, $p < 0.000$; CMIN/DF = 444; GFI = 0.90; AGFI = 0.88; NFI = 0.90; IFI = 0.93; TLI = 0.92; CFI = 0.93; RMSEA = 0.035).

The structural model showed that all of the hypothesis accepted .the finding show that attractiveness loaded significantly and strongly on positive and negative effect. Ease of use, however, had significant effects on either emotion. The urge to buy was rather strongly affected by positive effect, moderately by browsing, and rather weak by negative effect. Furthermore, the results showed that the urge to buy had a significant and strong influence on impulse buying. So, all of our hypothesis were accepted according to SEM model. In table 5-2, you can see the summarize of the final result of our hypothesis.

Table5-2: the final result of hypothesis

6 .Freidman test

With Freidman test, we can prioritizing our variables, and according that, we can have many suggestion to discount group websites.

Table6-1:the result of Freidman test

According to above table, the more important variables in independence variable according to their mean are merchandise attractiveness, enjoyment, websites communication style and then ease of use that in order, their means are 2.68, 3.50, 4.26 and 4.58.so, we can suggest to websites designer of discount group sites to attention more about merchandise attractiveness, such as the amount and variety of their product, and the low price of their product. They also should attention to enjoyment aspect of their websites such as the animated banner advertising and real pictures of product. All of these factors can cause impulse buying in discount websites. Also they should attention to ease use of their websites such as good navigating of websites and the speed of loading their websites, also their websites should have friendly style of websites that can effect on customers to urge to buy product impulsively.

Limitation and future research

This study has several limitations that need to be highlighted. The data collection took place in Iran. Thus, future research with tested in other cultures, is needed to enhance the generalize ability of our findings. Moreover, the study context included a wide range of client of discount group sites, so we can not generalize

ability finding of this research to other kind of internet websites. Future work can focusing on another type of websites. Furthermore, other demographic variables should be explored. This would provide a better representation. Other dimensions of impulse could be explored. For instance, future studies could include situational and individual factors that effect on impulse buying.

Result

Our tests provided three important results: (1) a conceptual understanding of the online impulse buying process, (2) the role of consumer emotions in impulse buying, thus confirming the applicability of CET in impulse buying situations, and (3) how online store beliefs may function as cognitive determinants of online impulse buying. First, we provided insight into the online impulse buying process and used a sample of real shoppers to validate its theorized structure.

Second, although the importance of emotions has been demonstrated in online impulse buying in general, we showed that emotions are crucial to online impulse buying. They seem to function as mediator between online store beliefs and impulse buying. To further validate this mediating role post hoc tests with two alternative models were conducted. The first alternative added direct influences of the four online store beliefs on impulse buying.

Third, our research showed how and to what extent online store beliefs might trigger impulse buying. The structural model provided mixed support for our assumptions. For the functional convenience beliefs, merchandise attractiveness loaded significantly and strongly on both positive and negative effect. Having a symmetric effect on both emotions, merchandise attractiveness seemed to be a performance factor Surprisingly, after that enjoyment had significant effect on emotion. Computation of mean scores indicated a very good evaluation of the usability of the online

From a managerial perspective, our research has several implications. First, we showed that the representational delight and merchandise attractiveness were important to impulsive buying settings. So to stimulate impulsive buying, online retailers should create a calm, friendly, knowledgeable, fun site with an attractive assortment; providing pleasure when customers browse through it. Second, the lack of significance of ease of use puts its relevance into perspective. Being a basic factor, it seems sufficient to bring an online store's ease of use to an acceptable level. Thus, allocating budgets to improve an online store's ease of use requires careful consideration. Third, our finding show, by making the shopping experience exciting, enthusiastic and inspiring, positive emotions are triggered with possible impulsive buying as a consequence.

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The figure and table:

Table 1-1: The Thirteen Dimensions of Impulse Buying

Dimensions	studies
Unplanned purchase	Davidson 1966; Engel and Blackwell 1982; McNeal 1973
Response to stimulus	Stern, 1962
Deliberately planned to benefit from offers	Day 1970
Thrill seeking	Stern, 1962
Decision made on the spur of the moment	Davidson 1966
Result of a deliberation process	McNeal 1973
Not a response to a previous problem	Engel and Blackwell 1982
No prior buying intentions	Engel and Blackwell 1982
Sudden and spontaneous desire to act	Rook 1987; Rook and Hoch 1985
State of psychological disequilibrium	Rook and Hoch 1985
Psychological conflict and struggle	Rook 1987; Rook and Hoch 1985
Reduction of cognitive evaluation	Rook and Hoch 1985
No evaluation of consequences	Rook 1987; Rook and Hoch 1985

Table 2.1: Common Impulse Buying Measures Construct Source Description

construct	source	description
Impulsive Purchase behavior	Rook and Fisher 1995	Degree to which a subject will make an impulsive purchase decision based on a scenario.
Buying Impulsiveness Scale	Rook and Fisher 1995	A consumer's tendency to buy spontaneously, unreflectively, immediately, and kinetically.
Buying Impulsiveness Scale	Donthu and Gilliland 1996	Degree to which a person not only indicates that he or she engages in unplanned consumer choice, but likes to purchase in that way.
Impulse Tendency Scale	Mick 1996	Extent to which a consumer is likely to make unplanned, immediate, and unreflective purchases.
Consumer Impulsiveness Scale	Puri 1996	Provides a measure of "people chronic values towards impulsiveness."
Impulse Buying Tendency	Weun et al. 1997	Degree to which an individual is likely to make unintended, immediate, and unreflective purchases."

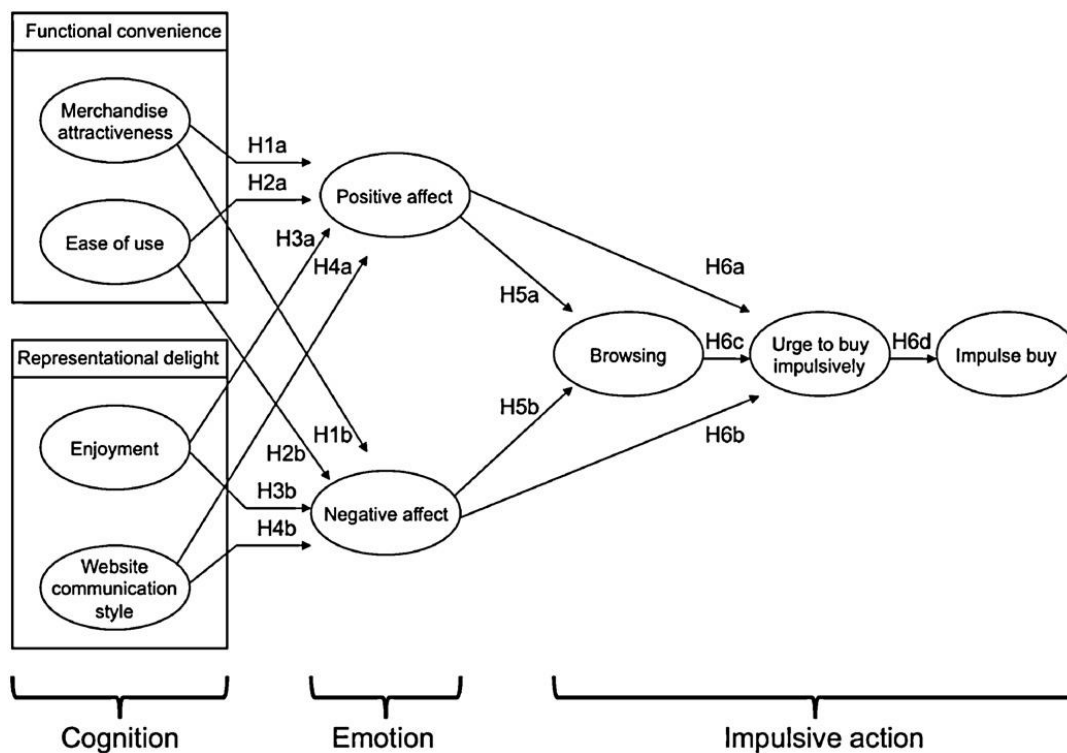


figure3.1:the conceptual model of research

Table 4-1:the reliability of our variables

Urge to buy	Impulse buying	browsing	Negative effect	Positive effect	Websites communication style	Ease of use	enjoyment	Merchandise attractiveness	Variables
0.85	0.86	0.96	0.962	0.88	0.814	0.902	0.79	0.89	Cronbach alpha

Table4-2: Demographic Characteristics of Consumers

Demographic	category	percentage	Count(n)
Gender	Male	41%	168
	Female	59%	242
AGE	Under 20	8%	33
	21-30	65%	246
	31-40	25%	102
	41-50	2%	8
	Upper50	0%	0
Education	Bachelor	49%	201
	Primary school education	6%	25
	Post-primary education	37%	151
	phd	8%	33
Career	Employer	36%	148
	Student	36%	148
	Free work	18%	74
	Housewife	4%	16
	Retired	1%	4
	Jobless	4%	16

Table5-1.the brief name of variables

Brief name	variables
GA	Merchandise attractiveness
SE	Ease of use
SA	enjoyment
SEW	Websites communication style
GI	Web browsing
PE	Positive effect
NE	Negative effect
TKN	Urge for buy
KN	Impulse buying

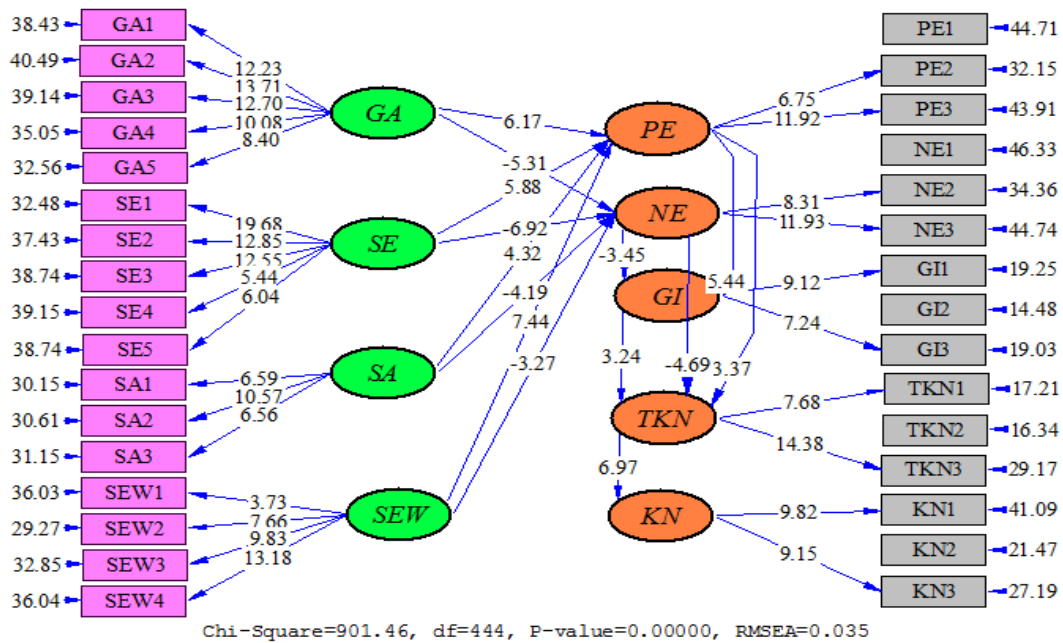


Figure 5-2: significance test

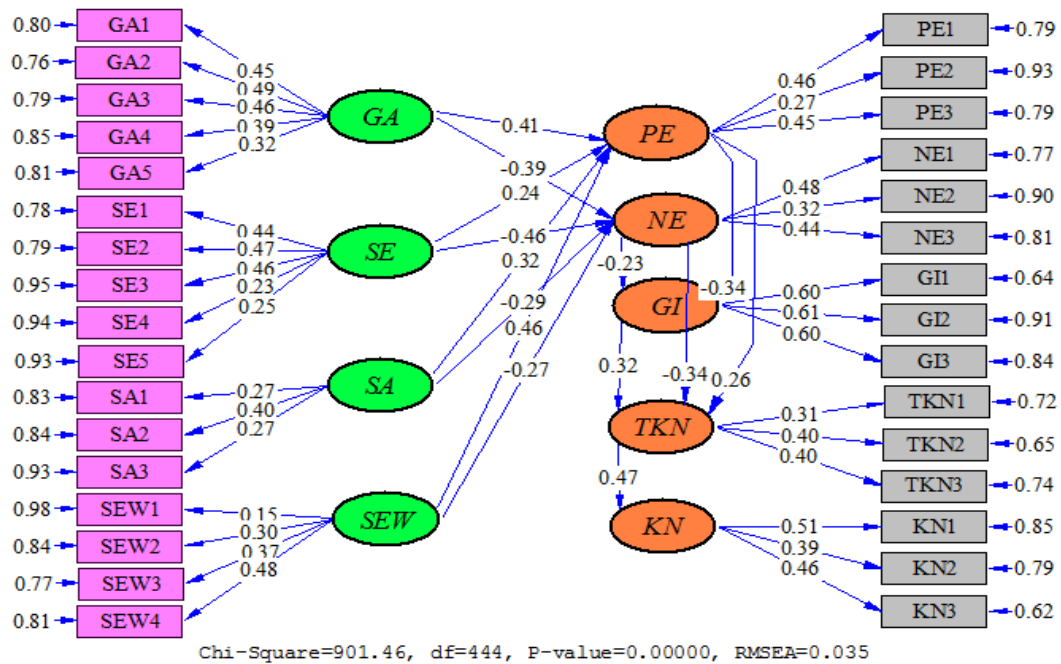


Figure 5-3: t-value, the approval result of final model of research

Table5-2: the final result of hypothesis

result	t-value	Load factor	effect	Hypothesis
accepted	3.87	0.33	Direct	Hypothesis1
accepted	4.68	0.27	Reverse	Hypothesis2
accepted	7.37	0.77	Direct	Hypothesis3
accepted	-5.68	-0.31	Reverse	Hypothesis4
accepted	6.43	0.59	Direct	Hypothesis5
accepted	-6.51	-0.43	Reverse	Hypothesis6
accepted	6.60	0.60	Direct	Hypothesis7
accepted	-5.39	-0.37	Reverse	Hypothesis8
accepted	6.44	0.57	Direct	Hypothesis9
accepted	-3.02	-0.31	Reverse	Hypothesis10
accepted	7.43	0.78	Direct	Hypothesis11
accepted	-3.18	-0.17	Reverse	Hypothesis12
accepted	2.86	0.87	Direct	Hypothesis13
accepted	9.50	0.77	Direct	Hypothesis14

Table6-1:the result of Freidman test

variables	mean	Sig
Merchandise attractiveness	2.68	0.000
enjoyment	3.50	
Website communication style	4.26	
Ease of use	4.58	