電視購物中，個人因素與行銷策略
對衝動購買迫切性之影響

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電視購物快速成長，歸因於收視者在觀看電視購物頻道時常會發生衝動性購買的行為。本研究應用 *Beatty and Ferrell (1998)* 衝動購買的模式，並加入知覺風險與主持人與來賓吸引力等兩個因素，探討影響電視購物衝動購買迫切性的前因。本研究透過問卷調查方式，蒐集 262 位有效樣本，經由線性結構模式分析發現，收視者衝動購買傾向是最主要影響衝動購買迫切性的因素，其次是電視購物頻道瀏覽行為與收視時的正面情緒。本研究進一步發現，低知覺風險和較少時間外出購物的收視者，會增加電視購物頻道瀏覽行為，主持人與來賓的吸引力會大幅影響收視時的正面情緒。本研究透過整體性架構，探討多個影響因素，並比較個別因素的影響程度，對於電視購物衝動迫切性有更完整的了解。

關鍵字：電視購物、衝動購買迫切性、吸引力、知覺風險、正面情緒。

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Effects of Individual Factors and Marketing Strategies on Impulsive Buying Urge in TV Shopping

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Rapid growth of TV shopping is attributed to the fact that viewers make impulse purchase on TV shopping channels. By applying Beatty and Ferrell (1998)'s impulse buying model and incorporating two new antecedents (perceived risk and the attractiveness of host and celebrity) which are unique to TV shopping, this study investigates the antecedents of viewers' impulse buying urge. Analysis of a questionnaire survey with 262 subjects, utilizing structural equation modelling, reveals that impulse buying tendency has the strongest impact on viewers' impulse buying urge, followed by TV shopping channel browsing behaviors and positive affect. In addition, viewers who perceive less risk toward TV shopping and have less time to go out shopping are more likely to browse TV shopping channels. The authors also find that positive affect is primarily enhanced by attractive hosts and celebrities. Through the examination of a comprehensive framework, this study contributes that the previously found and new factors could influence buying urge in TV shopping contexts and compare their relative impact. In addition, this study extends the applicability of impulse buying model in the TV shopping context and also identifies additional constructs, including perceived risk and attractiveness of host and celebrity, which are not discussed in the model.

Key Words: Television Shopping, Impulse Buying, Attractiveness, Perceived Risk, Positive Affect.

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Introduction

TV home shopping is a powerful tool for expanding brand awareness and increasing sales. In Taiwan, the annual sales volume is up to NT$ 20 billion every year (Shen, 2016). TV shopping is a channel for brands to educate people about products. Due to its vivid demonstration and a limited number of products for a short period of time, TV shopping is a stimulator to consumers' urgency to buy. Thus, three major Taiwanese shopping companies, ETmall, Momo Shopping and Viva, invest more in extending shopping channels and cross-selling with on-line and APP shopping in recent years(Chang, 2014). Using TV shopping to showcase products helps enhance credibility to the brand and products (Cooper, 2013; Stevens, 2017). Therefore, an on-going development of TV shopping industry is clearly seen.

TV shopping is a kind of non-store shopping (Alcañiz, Blas and Garcia, 2004). The most important motivations of TV shopping include quality, non-availability in store of the product, price, demonstration of use or operation of the article and its novelty rating (Alcañiz, et al., 2004). In addition, interacting with the hosts is another motivation for TV shoppers (Park et al., 2011). The continuing cycle of dependency between the audiences and the program hosts becomes a ritualistic parasocial relationship (Park et al., 2011; Park and Lennon, 2006; Rubin and Step, 2000; Stephens et al., 1996). Loneliness as another important factor that leads to browsing TV shopping channels (Lim and Kim, 2011; Lim and Kim, 2017). Previous studies about TV shopping discuss the older people are heavy users of television shopping. They spend more time watching TV and rely TV due to entertainment, news and information requiring (Lim and Kim, 2011, Lim and Kim, .2017; Myers and Lumbers, 2008). With positive TV shopping experience, those consumers have lower levels of perceived risk, spend more time watching and yield more purchase.

Due to the close relationship between the audiences and TV shopping programs, previous studies attribute high sales on TV shopping to the fact that consumers often make impulse purchase while watching TV shopping channels (e.g., Lee et al., 2000; Lim and Kim, 2011; Park and Lennon, 2006; Warden et al., 2008).Impulsive buying is caused by the conflicting goals of saving and spending money. When people fail to monitor their own behaviour or depleting of mind resources, self-control is less effective. Viewers of TV shopping easily conduct impulse buying. This is mainly because viewers usually have no information about what merchandises will be offered before watching TV shopping programs and need to make purchase decisions during a limited broadcasting period if they want to buy something (Lee et al., 2000; Park and Lennon, 2006). A sudden urge to buy always drives viewers to make purchase decisions when viewers watch TV shopping channels.

As a result, many academics usually concern with what antecedents may induce viewers' urge to buy. For example, some studies indicate individual differences, such as age, education, and impulse buying tendency, causes significant differences in the intensity of impulsive buying on TV shopping (Flight et al., 2012; Park and Lennon 2006), while other studies parasocial interactions with the hosts on TV shopping channels would influence viewers' browsing behaviors and perceived enjoyment (e.g., Lee et al., 2000; Park and Lennon, 2006; Parboteeah et al., 2009). Although these studies examine many antecedents, they do not investigate the relative impacts of these factors, and ignore some other important antecedents that have not been identified. In order to fill these research gaps, this study attempts to theoretically develop a comprehensive framework including more antecedents, and further empirically test research hypotheses to investigate the relationship among these antecedents and compare their relative impacts.
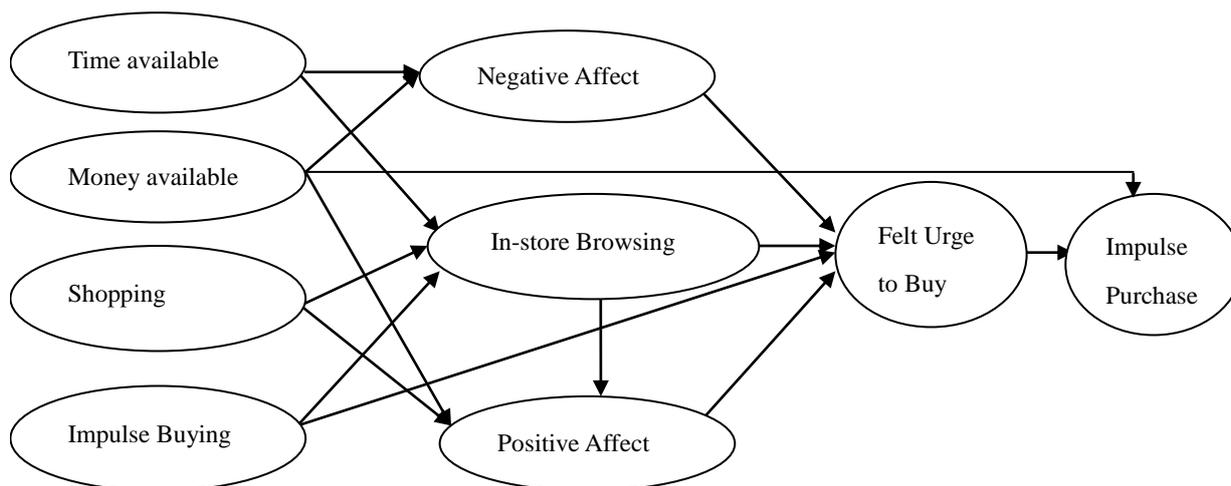
Figure 1   Beatty and Ferrell's research framework

This study applies Beatty and Ferrell's (1998) impulsive buying model to explore the impulse buying urge in TV shopping contexts. Their model provides a comprehensive framework to understand the antecedents of impulse buying urge in physical shopping contexts, and applies to various retailing environments, such as malls and supermarkets (e.g., Leug et al., 2006; Lin and Lin, 2013). However, these shopping environments are different from TV shopping in some important aspects. For example, perceived risk about the product performance and financial issues in TV shopping context should be different from in-store shopping context (Sharma et al., 2014). The salespersons are host and celebrity in TV shopping programs, which are lack in in-store shopping (Lim and Kim, 2011). Therefore, in order to examine the factors which may stimulate buying urge, this study attempts to theoretically develop a comprehensive framework including more antecedents, and further empirically test research hypotheses to investigate the relationship among these antecedents and compare their relative impacts in TV shopping contexts.

This paper firstly reviews the relevant literature and develops hypotheses. Next, it describes the data collection and measurements, and then presents the results about the impacts of antecedents on impulse buying urge by employing structural equation modeling (SEM). Finally, it concludes with a discussion of the major findings and implications.

Literature Review

Conceptual model

Beatty and Ferrell (1998) proposes the impulse buying model to comprehensively investigate the antecedents of impulse buying. The model shows that a set of exogenous antecedents, including two situational variables (time available and money available) and two individual difference variables (shopping enjoyment and impulse buying tendency), influence the endogenous variables, including positive and negative affect and browsing behavior, and ultimately impulse buying urge. Finally, the impulse purchase occurs (Fig 1). Several research has applied their model in many shopping context, such as store shopping (Parsad et al., 2017), e-commerce (Leong et al., 2018) and festival market (Brida and Tokarchuk, 2017).

To fit the TV shopping context, this study modifies this model in three ways.

First, hosts and celebrities provide information and entertainment through TV shopping channels (Park and Lennon, 2006; Warden et al., 2008), and they, along with individual and situational variables, should act as significant antecedents of the impulse

buying urge. Second, consumers perceive more risk with home shopping due to the inability to inspect and compare merchandise (Sharma et al., 2014). Thus, perceived risk should be included in our model. Third, negative affect, one of the endogenous variables, is not included in this study for two reasons. One is that Beatty and Ferrell (1998) empirically find that the impulse buying urge, as a hedonic emotional state, is not directly influenced by negative affect. The other is that the affect in this study refers to the mood raised by shopping environment, rather than pre-shopping mood. The expectation of acquiring product usually makes consumers feel exciting and enthusiastic (Lin and Lo, 2016; Parboteeah et al., 2009). Therefore, this study removes negative moods in the model. Fourth, this study removes shopping enjoyment in the Beatty and Ferrell (1998) model. Shopping enjoyment is viewed as the pleasure that a consumer derives from the shopping process/activities per trip. Several studies have indicated that shopping itself has marked enjoyable aspect (Dholakia, 1999; Shannon and Mandhachitara, 2008). Shopping enjoyment is related to consumers' time availability (Shannon and Mandhachitara, 2008) or attitude toward the shopping context (Mihić and Milaković, 2017). For example, if a person is time-pressured, their shopping enjoyment

likely decreases. If a person have positive attitude toward the advertising, they will like to expose to the mass media transmitting the product information and enjoy visiting the shopping websites more. This study has included both concepts of time availability and attitudes toward host and celebrity in the TV shopping context. To avoid the overlapping of research concepts, this study removes shopping enjoyment. In summary, this study proposes a model shown in Figure 2.

The impulse buying urge and its endogenous antecedents

Impulse buying urge. The impulse buying urge is a sudden and spontaneous desire to buy something (Beatty and Ferrell, 1998; Lin and Lin, 2013; Parboteeah et al., 2009). Before making such purchases, consumers experience an impulse urge to buy without much reflection. The impulse urge is usually powerful and irresistible, and makes people act without consideration of the consequences. Once carving happens, consumers will have the hardest time in repelling the urge.

TV shopping channel browsing. In this study, TV shopping channel browsing is defined as the extent to which people watch TV shopping channels for recreation or information purposes without an
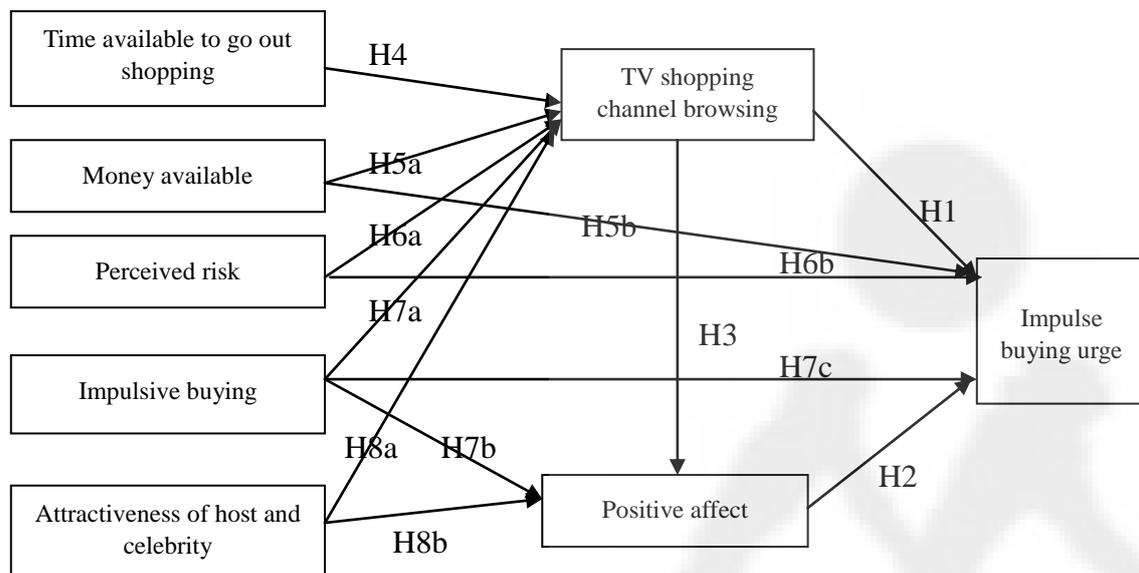

Figure 2   Research framework

immediate purchase intention. TV shopping channel browsing is similar in nature to in-store browsing in other retailing contexts. People who spend more time browsing have a stronger buying urge because they encounter more promotional stimuli which makes them want to own or consume the merchandises seen (Lin and Lo, 2016; Parboteeah et al., 2009). In the TV shopping context, viewers are not actually browsing, but they are in virtual proximity to the products (Lim and Kim, 2011). They not only can learn about the specifications of merchandise in detail, but also may encounter more promotional stimuli. Hence, consumers who watch TV shopping channels longer are likely to have a stronger impulse buying urge.

H1: TV shopping channel browsing positively influences impulse buying urge.

Positive affect. Positive affect is the extent to which people feel enthusiastic, active, and alert (Heilman et al., 2002). In general, consumers with positive affect have a feeling of being unconstrained, a desire to reward themselves, and higher energy levels. Compared to consumers with lower positive affect, those experiencing higher positive affect due to the shopping environment spend less time collecting and evaluating information (Lin and Lin, 2013; Parboteeah et al., 2009). In turn, this affect can have a favorable impact on product attitudes and further enhance approach behaviors. Consequently, the buying urge is easily activated by positive affect.

H2: Positive affect positively influences the impulse buying urge.

In addition, when people browse stores without specific intent, they can gain the hedonic value of shopping from displays, counters, lighting, music or product information (Cox, Cox and Anderson, 2005). Consumers can get spontaneous responses during the course of shopping activities (Kaltcheva and Weitz, 2006). Applying to this concept, viewers also can gain similar pleasure by viewing TV shopping channels (Lin and Lin, 2013; Luo et al., 2011). Thus, this study

expects that viewers who browse TV shopping channels longer are more likely to experience positive affect.

H3: TV shopping channel browsing positively influences positive affect.

Exogenous antecedents of impulse buying urge

Time available to go out shopping. Saving time is the major benefit of home shopping, especially for people who are highly pressed for time (Alcañiz et al., 2004). Rajamma, et al.(2009) indicate that the perceived inconvenience is the most important forecaster of shopping cart abandonment. TV shopping channels provide viewers with a convenient order and delivery service (Lim and Kim, 2011; Park and Lennon, 2006). Consumers can shop at any time and have large number of items delivered at door step. They possess not only access convenience, search convenience and evaluation convenience before purchase but also refund or after-sales service after purchase. These advantages are particularly important for those consumers with less time to go out shopping (Sethi and Sethi , 2016). Thus, this study assumes that people with less time to go out shopping are more likely to browse TV shopping channels longer.

H4: Time available to go out shopping negatively influences TV shopping channel browsing.

Money available. Money available is the amount of disposable income an individual has. Previous studies indicate that low-income people usually browse more, and this is probably because they are more reflective while shopping (Goldman, 1977). Since the benefits of comparison shopping are important to low income shoppers, they would spend more time browsing around to collect more information. Consequently, this study expects people with less disposable income to browse TV shopping channels more.

H5a: Money available negatively influences TV shopping channel browsing.

In addition, money available is associated with impulse buying urge. Nanda(2013) collected from the people who had made a recent purchase of apparels in India and found that those with high disposable income conduct more impulse purchase behaviour than others because they have a stronger desire to improve standard of living. They not only meet the utilitarian needs but also satisfy hedonic need to reduce time and effort in planning what to buy (Cobb and Hoyer, 1986). Consumers usually have a more open shopping list that facilitates to entertain themselves with unexpected buying ideas, which is the approval of living standard improvement. Some research about food choice also indicates that those consumers with higher income spend on foods with higher unit values and branded items (Huang and Gale, 2009). There is a negative correlation between income and the importance of utilitarian purchase criteria. That means higher income leads to less importance of functional aspects and pursue hedonic aspects of quality and ease of use. Based on these arguments, this study assumes that people with higher disposable income to evoke impulse buying urge more.

H5b: Money available positively influences impulse buying urge.

Perceived risk. Perceived risk is the consumer's perceptions of the uncertainty and adverse consequences of buying a product or service (Dowling and Staelin, 1994). Consumers usually associate various types of risk with different shopping modes. Compared to in-store shopping, performance and financial risk are two main concerns of TV shopping viewers. Due to limited physical access to products and sales personnel, viewers may worry that the merchandise they intend to buy may fail to function as expected, which results in high performance risk (Sharma et al., 2014).

In addition, because consumers have limited time to conduct price comparison while watching TV shopping channels, viewers may suffer several sources of financial risks. First, viewers cannot be sure that the price offered to them is the lowest at present, resulting in financial risk (Kim and Lennon, 2000). Second, due to credit card fraud, viewers may alert to payment security (Egeln and Joseph, 2012). Thus, high perceived risk would reduce consumers' willingness to choose TV shopping channels as a shopping mode. As a result, viewers would spend less time browsing and tend to control themselves, instead of taking actions. Purchase urgency through TV shopping channels would be diminished.

H6a: Perceived risk negatively influences TV shopping channel browsing.

H6b: Perceived risk negatively influences the impulse buying urge.

Impulse buying tendency. Impulse buying tendency (IBT), as a personal trait, refers to the tendency to experience a spontaneous and sudden desire to make purchases and to act with little evaluation of possible consequences (Rook and Fisher, 1995). This study expects that low IBT viewers would spend less time browsing TV shopping channels for two reasons. First, compared to high IBT consumers, low IBT consumers tend to be self-conscious, with stronger willpower and more self-control. They may avoid impulsive buying situations, such as watching TV shopping channels. Second, they are more likely to anticipate negative emotions if they purchase impulsively, such as guilt, regret, or embarrassment (Tsiros and Mittal, 2000). As a result, they would not browse around TV shopping channels very much. Thus, H7a is proposed.

H7a: Impulse buying tendency positively influences TV shopping channel browsing.

Furthermore, compared to low IBT consumers, high IBT consumers usually tend to seek excitement

or novelty and avoid boredom or monotony (Cloninger et al., 1991). As a result, in the impulse buying process, they have a strong motivation to anticipate more hedonic impacts from impulsive consumption, such as pleasure and delight (Lin and Lin, 2013; Tao and Guohua, 2011). Thus, this study infers that when high IBT consumers are in a TV shopping setting, they easily perceive the positive affect created by the environment.

H7b: Impulse buying tendency positively influences positive affect.

A consumer's impulse buying tendency is relatively stable, highly consistent, and responsible for exerting a generalized causal effect on behavior (Rook and Fisher 1995). A high IBT consumer is usually low on conscientiousness, need for structure and need to evaluation (Tao and Guohua, 2011). As a result, he/she tends to pay more attention to the hedonic consequences of buying, which leads to relatively higher intention to conduct more impulsive behaviors (Flight et al., 2012). Thus viewers with higher IBT tend to feel stronger impulse buying urges than those with lower IBT.

H7c: Impulse buying tendency positively influences impulse buying urge.

Attractiveness of host and celebrity. On TV shopping channels, hosts, as the salespeople, introduce and demonstrate the merchandises in detail. Celebrities, acting as co-hosts, also cooperate to promote products. In a sales context, a two-step process accounts for the impact of communicator's attractiveness (Reinhard et al., 2006). People are often keen to know why a communicator holds a certain belief, thus, they initially categorize the person on the salient characteristics, such as attractiveness. Once this categorization is made, features associated with the category are activated, and people are likely to rely on the category-based expectations in judging the communicator (McColl and Truong, 2013). Thus, if communicators are perceived attractiveness, people

presumably form a favorable first impression and would stimulate attribution of favorable personality, such as competence, trustworthy and likeableness. Thus, the people would perceive attractive communicators not self-interest and are likely to spend more time with them. In the TV shopping context, when viewers perceive hosts and celebrities are attractive, viewers would form the positive impression which leads them to generate a stronger motivation to watch the product demonstration in TV shopping channels longer.

H8a: Attractiveness of host and celebrity positively influences TV shopping channel browsing.

Furthermore, when viewers perceive hosts and celebrities on TV shopping channels are attractive, para-social interaction is built-up (Lim and Kim, 2011). A parasocial interaction refers to the illusion of intimate relationship with media personas even viewers have never met in person (Horton and Wohl, 1956). Once such interaction is established, viewers would like to feel comfortable and further influence viewers' evaluation. In addition, McColl and Truong (2013) also indicate attractive salespeople lead to positive evaluations of the products they recommend and would stimulate customers' positive affect in the shopping process. Therefore, it infers that when hosts and celebrities are attractive in TV shopping context, they would elicit viewers' pleasure-related responses, such as interest, excitement and joy.

H8b: Attractiveness of host and celebrity positively influences positive affect.

Research Method

Data

Data was collected using the mall intercept procedure. Field researchers were trained in how to intercept shoppers before the survey. At the front of three large department stores in Taiwan, they approached every tenth pedestrian, which follows the systematic sampling procedure used by Dickson and

Swayer (1990). Shoppers were asked to complete the survey. As an incentive, respondents who completed the questionnaire were given a gift. Totally, 312 respondents completed the questionnaire.

Measurement

The questionnaire was a structured instrument with closed-ended questions measuring respondents' agreement/disagreements on a seven-point Likert scale (1=strongly disagree, 7=strongly agree). Multi-item scales validated in previous studies were adopted and modified to fit TV shopping contexts. Most measurement items for five exogenous factors were drawn from Beatty and Ferrell (1998) and Lin and Lin (2013), including two items for time available to go out shopping, two for money available and three for impulse buying tendency. The factors not included in Beatty and Ferrell (1998)'s model were adopted from the relevant literature, including five items from Burgess (2003) and Kim and Lennon (2000) to assess perceived risk, and four items form Ahearne et al. (1999)'s to assess the attractiveness of host and celebrity.

In addition, TV shopping channel browsing, adapted from Lee et al. (2000), was measured by three items: "I often watch TV shopping channels"; "I often spend lots of time watching TV shopping channels"; and "I often browse television home shopping channels." Positive affect were drawn from Watson et al. (1988)'s Positive and Negative Affect Schedule Scale (PANAS). Four positive emotions (pleasure, exciting, joyful, inspired) were measured. The impulse buying urge was measured by two items: "I usually experience a sudden urge to buy things I have not planned to purchase while watching TV shopping channels"; and "I usually see lots of things I want to buy while watching TV shopping channels" (Beatty and Ferrell, 1998). After conducting a pretest, the results lead to delete the one item of positive affect (inspired) with lower factor loadings and also make small changes in the wording of the items.

Results

Sample characteristics

Among 312 respondents, this study acquired 262 usable responses after eliminating invalid questionnaires. Of the usable respondents, 67.2% were female and 32.8% male. The majority of the respondents were between the ages 20 and 40, and in white-collar occupations. 99.2% had watched TV shopping channels before, 79.8% had bought from TV shopping channels before, and most of them had purchased 2~5 times or more, and thus could be considered experienced TV shopping shoppers. The majority of respondents (60.9%) reported that they viewed TV shopping channels a couple of times per week.

Measurement model

Confirmatory factor analysis (CFA) was performed to test the measurement model. This study presumed that perceived risk and attractiveness of host and celebrity were two second-order constructs. Thus, CFA about these two constructs were conducted firstly. About perceived risk, Table 1(a) displays the Cronbach's alpha for financial risk and performance risk, which were composed of perceived risk, exceed 0.6 threshold, which indicated good reliability of measures. Factors loadings of five items were above 0.5 and not higher than 0.3 on the other factor, providing evidence for construct validity. In addition, Table 1(a) also shows that average variance extracted (AVE) were greater than 0.5 of the total variance and higher than 0.11, the squared correlation coefficient between factors, representing good convergent and discriminant validity. The goodness-of-fit statistics were: $\chi^2/df=1.562$, p=0.67, GFI=0.99, AGFI=0.97, and RMSEA=0.047. The analysis supported the operationalization of overall perceived risk as a second-order construct consisting of the two factors. In addition, the same process was conducted with four items of attractiveness of host and celebrity. As shown in Table 1(b), the reliability,

Table 1   Confirmatory factor analysis: perceived risk and attractiveness of host and celebrity

Factors/Items	Standardized factor loading	Cronbach's alpha	AVE
Factor 1: Financial Risk		0.89	0.64
I find the lower price of the same products sold by TV shopping channels in other stores .	0.86		
I think that purchasing from TV shopping channels is a bad way to spend money.	0.85		
Purchasing from TV shopping channels makes me think I just threw away a lot of money.	0.67		
Factor 2: Performance risk		0.83	0.74
Products sold by TV shopping channels do not function properly.	0.81		
Products sold by TV shopping channels are not be durable.	0.91		
(b) Attractiveness of Host and Celebrity			
Factor 1: Knowledgeable		0.74	0.71
Hosts and celebrity provide abund ant product knowledge.	0.89		
Hosts and celebrity are good at product demonstration and application.	0.79		
Factors 2: Likeable		0.82	0.60
Hosts and celebrity are liked by people.	0.81		
Hosts and celebrity are likeability.	0.74		

construct validity and convergent validity of two factors, knowledgeable and likeable, were confirmed. The squared correlation between two factors was 0.21, which was greater than AVE, indicating good discriminant validity. The goodness-of-fit statistics were: $\chi^2/df=1.915$, p=0.15, GFI=0.993, AGFI=0.964, and RMSEA=0.059. The results show that attractiveness of host and celebrity as a second-order factor consisted of two factors.

Furthermore, CFA was performed with all the constructs for the research structural model. The item

of joyful in positive affect was excluded from the final measurement model due to large standardized residuals. Table 2 lists the Cronbach's alphas and construct reliabilities of all constructs which exceeded the recommended value. AVEs of all constructs were greater than 0.50, which were greater than the squared correlations between any pair of constructs (Table 3). These outcomes provided support for the convergent and discriminant validity. Overall, estimation of the CFA model generatedχ^2/df, CFI and RMSEA of 1.06,

Table 2   Reliabilities and confirmatory factor analysis properties

Construct	Items	Standardized factor loading	Cronbach's alpha	Construct reliability	AVE
Time available to go out shopping	I have limited time to go out shopping*. I am busy when I go out shopping*.	0.77 0.97	0.78	0.87	0.69
Money available	I have enough money to buy something. I have enough money to buy unplanned things.	0.82 0.97	0.84	0.89	0.77
Perceived risk	Financial risk Performance risk	0.66 0.85	0.78	0.73	0.58
Impulse buying tendency	I often buy things spontaneously. I often buy things without thinking. "Buy it before thinking" describes me.	0.78 0.93 0.83	0.88	0.89	0.72
Attractiveness of host and celebrity	Knowledgeable Likeable	0.71 0.78	0.75	0.71	0.56
Positive affect	While watching TV shopping channels, I often feel excited. While watching TV shopping channels, I often feel pleasure.	0.60 0.81	0.60	0.67	0.51
TV shopping channel browsing	I often watch TV shopping channels. I often spend lots of time watching TV shopping channels. I often browse television home shopping channels.	0.79 0.77 0.70	0.79	0.80	0.57
Impulse buying urge	I usually experience a sudden urge to buy things I have not planned to purchase while watching TV shopping channels. I usually see lots of things I want to buy while watching TV shopping channels.	0.95 0.72	0.70	0.83	0.71

Note: *: the item was reversed scored.

0.995, and 0.015 respectively. The model thus demonstrated a good fit.

Structural model

The structural model suggested in this study was tested using maximum likelihood method. The results showed an acceptable fit of the proposed structural model, with $\chi^2/df = 1.182$ (p=0.06). GFI=0.933, AGFI=0.907, and RMSEA=0.023, based on the advice of Hair et al. (1998). The path coefficients are shown in Table 4.

First, with respect to the impulse buying urge, TV shopping channel browsing (β_1=0.18, p<0.05) and positive affect (β_2=0.25, p<0.01) had significantly positive effect, which supported H1 and H2. In addition, the results show that TV shopping channel

browsing had a significant positive effect on positive affect (β_3=0.29, p<0.001) and thus, H3 was supported.

Second, H4 and H5 examine the impact of two variables – time available to go out and money available – on TV shopping channel browsing. The results showed that channel browsing was significantly influenced by time available to go out (β_4= -0.16, p<0.05), so H4 was supported. However, money available did not have a significant impact (β_5=0.06, ns.), and thus H5 was not supported. In addition, money available has negative impacts on impulse buying urge (β_6= -0.10, p=0.08)

Third, perceived risk had a negative effect on TV shopping channel browsing (β_7= -0.41, p<0.001), offering support for H6a. However, it did not have a significant effect on the impulse buying urge (β_8=0.11,

Table 3   Convergent and discriminant validity

	Time available to go out shopping	Money available	Perceived risk	Impulse buying tendency	Attractiveness of host and celebrity	Positive affect	TV shopping channel browsing	Impulse buying urge
Time available to go out shopping	0.69							
Money available	0.01	0.77						
Perceived risk	0.01	0.01	0.58					
Impulse buying tendency	0.08	0.00	0.01	0.72				
Attractiveness of host and celebrity	0.01	0.01	0.01	0.01	0.56			
Positive affect	0.03	0.02	0.04	0.22	0.33	0.51		
TV shopping channel browsing	0.04	0.01	0.14	0.07	0.04	0.19	0.57	
Impulse buying urge	0.04	0.00	0.00	0.22	0.01	0.11	0.10	0.71

Note: The numbers on diagonal line are the AVE by each construct. The numbers below the diagonal show the squared correlation coefficients between the constructs.

ns.), failing to support H6b. These results suggested that consumers who perceived high risk toward TV shopping spent less time watching TV shopping channels, but their buying urge was not affected. Fourth, impulse buying tendency had significant impacts on TV shopping channel browsing (β_9=0.24, p<0.01), positive affect (β_{10}=0.31, p<0.001) and impulse buying urge (β_{11}=0. 36, p<0.001) and the results supported H7a- 7c. Finally, attractiveness of host and celebrity did not significantly influence TV shopping channel browsing (β_{12}=0.05, ns.), failing to support H8a. However, it had a significantly positive impact on positive affect (β_{13}=0.46, p<0.001), offering support for H8b. These results showed that although attractive hosts and celebrities made people feel excited and pleasant, they had no significant influence on making viewers browsing TV shopping channels longer.

To further examine the effects of antecedents on the impulse buying urge in TV shopping contexts, the decomposition of the indirect, direct, and total effects of the exogenous variables on endogenous variables was conducted (Table 5). Impulse buying tendency was the strongest variable explaining the impulse buying urge while positive affect and TV shopping channel browsing were the second strongest variables. Positive affect was primarily affected by attractiveness of the hosts and celebrities and impulse buying tendency. However, other exogenous variables (time available to go out shopping, money available, perceived risk) exerted no significant impacts. TV shopping channel browsing was affected by several exogenous variables. Perceived risk exerted the strongest impact, and impulse buying tendency and time available to go out shopping had weaker impacts. However, attractiveness of host and celebrity and money available had no significant influence on viewers' browsing behavior.

Table 4. Structural parameter estimates

Hypothesized path	Standardized path coefficients	t-value	Results
H1: TV shopping channel browsing → Impulse buying urge (β_1)	0.18*	2.08	Supported
H2: Positive affect → Impulse buying urge (β_2)	0.25**	2.74	Supported
H3: TV shopping channel browsing → Positive affect (β_3)	0.29***	3.60	Supported
H4: Time available to go out shopping→ TV shopping channel browsing (β_4)	-0.16*	-2.11	Supported
H5a: Money available → TV shopping channel browsing (β_5)	0.06	0.85	Not supported
H5b: Money available → Impulse buying urge (β_6)	-0.10	-1.76	Not supported
H6a: Perceived risk → TV shopping channel browsing (β_7)	-0.41***	-3.43	Supported
H6b: Perceived risk → Impulse buying urge (β_8)	0.11	1.17	Not supported
H7a: Impulse buying tendency → TV shopping channel browsing (β_9)	0.24**	3.03	Supported
H7b: Impulse buying tendency → Positive affect (β_{10})	0.31**	3.20	Supported
H7c: Impulse buying tendency → Impulse buying urge (β_{11})	0.36**	2.34	Supported
H8a: Attractiveness of host and celebrity → TV shopping channel browsing (β_{12})	0.05	0.56	Not supported
H8b: Attractiveness of host and celebrity → Positive affect (β_{13})	0.46***	4.39	Supported

Note: ***$p<0.001$, **<0.01, *$p<0.05$

Discussion and Conclusion

By applying Beatty and Ferrell's (1998) impulse buying model to the TV shopping context, this study examines the antecedents of viewers' impulse buying urge when they watch TV shopping channels. There are several important findings as follows.

First, this study finds that viewers' impulse buying urge while watching TV shopping channels is primarily affected by their impulse buying tendency, followed by channel browsing and positive affect. The finding demonstrates that impulse buying tendency as an individual difference factor determines the attitudes and behaviors toward TV shopping. It means that viewers with a high impulse buying tendency would spend more time watching TV shopping channels and experience more positive emotions created by the channels. The result is in line with the previous finding which indicates that those

impulsive buying shoppers would seek shopping pleasure (e.g., Herabadi et al., 2009; Luo et al., 2011). This study further finds that they would maintain strong emotional arousal as well as engage in emotionally stimulating daily activities. In the TV shopping context, those viewers with higher impulsive buying tendency have higher browsing behaviors as well as higher positive affect arousal.

In addition, this study also demonstrates the positive impacts of browsing on positive affect and buying urge. In comparison with the total effect of browsing behaviors and positive affect on impulse buying urge, this study finds that both factors have almost equivalent impacts on impulse buying urge. However, browsing behavior evokes positive affect, which influences buying urge. This implies that people who are exposed to TV shopping channels longer are more likely to feel positive emotional responses and, in turn, have a strong buying urge.

When previous studies find the strong effect of positive affect on urge in retailing context (e.g., Beatty and Ferrell, 1998; Lin and Lin, 2013; Lin et al, 2016), this study further suggests that positive moods produce greater experience of buying urge.

Third, attractiveness of the hosts and celebrities on TV shopping channels is the most important factor to raise viewers' positive affect. Previous TV shopping research has found that hosts and celebrities who can interact with viewers can stimulate their purchase intentions due to the parasocial interaction (e.g., Park and Lennon, 2006; Lim and Kim, 2011). This study further finds that the way hosts and celebrities exert their influence on viewers' buying

urge is by raising their positive affect. Specifically, hosts and celebrities with friendly attitudes and abundant product knowledge can increase viewers' positive affect. On the other hand, this study finds that attractiveness of hosts and celebrities have no impact on TV shopping browsing. The main reason may attractiveness is the reason for emotion, rather than for time length. When viewers regards the host and celebrity as the source to lessen their loneliness and dissatisfaction with themselves and the environment , they are likely to increase involvement (Blasco-Arcas et al., 2013) and watch them frequently (Lim and Kim, 2011).

Fourth, although both perceived risk and time

Table 5　Decomposition of direct, indirect, and total effects for the proposed model

Dependent variable 　Independent variable	Direct effect	Indirect effect	Total effect
Impulse buying urge			
Time available to go out shopping	-	-0.04	-0.04
Money available	-0.10	0.01	-0.08
Perceived risk	0.11	-0.10	0.01
Impulse buying tendency	0.36	0.14	0.49
Attractiveness of host and celebrity	-	0.13	0.13
TV shopping channel browsing	0.18	0.07	0.25
Positive affect	0.25	-	0.25
R^2	0.31		
Positive affect			
Time available to go out shopping	-	-0.05	-0.05
Money available	-	0.02	0.02
Perceived risk	-	-0.12	-0.12
Impulse buying tendency	0.31	0.07	0.38
Attractiveness of host and celebrity	0.46	0.02	0.48
TV shopping channel browsing	0.29	-	0.29
R^2	0.51		
TV shopping channel browsing			
Time available to go out shopping	-0.16	-	-0.16
Money available	0.06	-	0.06
Perceived risk	-0.41	-	-0.41
Impulse buying tendency	0.24	-	0.24
Attractiveness of host and celebrity	0.05	-	0.05
R^2	0.26		

available to go out shopping have direct impacts on TV shopping channel browsing, the former has the greater impact. This study finds that viewers may wonder whether the merchandises offered are as good as they appear and if they can really get the best price from TV shopping channels. When viewers perceive risk toward TV shopping channels, they are less likely to spend time browsing, which in turn reduce their buying urge. Our results show that perceived risk directly decreases browsing behaviors but it does not directly destroy impulse buying urge. Chang and Wu (2012) indicates that after examining the relationship between perceived risk, cognition-based attitudes and affect-based attitudes across various contexts, they found that the effect of perceived risk on affect-based and purchase intention are mediated by cognition-based attitudes. Our study also suggests that cognition-based browsing plays the role of trigger for subsequent urge based on perceived risk. Therefore, perceived risk exerts greater influence on browsing, rather than buying urge.

Additionally, Lim and Kim (2011) indicate that the TV shopping 24 hours a day is an attractive factor because consumers are likely to purchase in TV shopping anytime. This study finds such effect particularly exists for those with less available time. Viewers who had less time to go out shopping are likely to spend more time browsing TV shopping channels, and this in turn elicits a stronger impulse buying urge. This study contributes to find that people are attracted to the convenience of TV shopping, such as shopping anytime and ordering by phone, which benefits those viewers with less available time.

Fifth, contrary to our expectation, the extent of money available does not influence TV shopping channel browsing. Although we expect that viewers with less available money would browse more due to reflective shopping, the results do not support the argument. The possible reason is that viewers have to make purchase decision before the end of the TV shopping programs, thus they would not have much time to compare price and make purchase decision

later (Alcañiz et al., 2004). TV shopping channels would not be an effective tool for viewers with less money to compare price. Therefore, the impact of money available in TV shopping context is different from that in shopping malls or supermarkets contexts. In addition, the result also fails to support the positive effect of money available on impulse buying urge. Although previous studies indicate that those consumers with high disposal income generate greater impulse buying urge than others, most focus on transformation economy, such as India or China (e.g., Nanda, 2013). Money disposal is an approval of economic improvement. That data is this study is collected from Taiwan, in which consumers concern function aspects rather than hedonic aspects. Therefore, the result is different from that in previous studies.

Theoretical Implications

By addressing gaps in the literature on TV shopping behaviors and impulse buying, this study has some theoretical implications. First, through the examination of a comprehensive framework, this study demonstrates that the variables which have been found significant in previous studies and those which are new in TV shopping contexts could influence impulse buying urge in TV shopping contexts. The significant impacts of impulse buying tendency and perceived risk have been discussed in previous TV shopping studies. This study further identifies two new antecedents (perceived risk, attractiveness of host and celebrity) on impulse buying urge. Additionally, this study also finds that the strong impacts of positive affect and TV shopping browsing behaviors which are seldom examined in previous studies. Through such integrated research framework, we can easily understand the relative impacts of these antecedents on impulse buying urge in TV shopping contexts.

Second, this study demonstrates the applicability of Beatty and Ferrell's (1998) impulse buying model in the TV shopping context. Consistent with their

finding, the impulse buying tendency remains the most important factor to determine the impulse buying urge. In addition, this study also modifies their model by identifying additional constructs, including perceived risk and attractiveness of host and celebrity, which are not discussed in their model. Consequently, although Beatty and Ferrell's (1998) model is generally comprehensive, it should be modified by adding more constructs to apply to different shopping modes.

Managerial implications

This study provides several useful recommendations for TV shopping marketers. First, TV shopping marketers should target young, female shoppers. This is because this study finds that the impulse buying tendency is the most important antecedent of the impulse buying urge. Previous studies indicate that females and young people have a stronger impulse buying tendency than others (Coley and Burgess, 2003; Istudor and Pelau, 2013; Segal and Podoshen, 2013). Thus, targeting these groups would be the effective. In addition, this study suggests TV shopping marketers should target high disposal income customers, particularly those in high growth industry or market. Several studies indicate consumers from transformation economy (e.g., India or China) are likely to conduct impulse buying behaviors. In other words, those who accumulate their wealth in short time are likely to spend more. Therefore, those customers working in high-speed growth industry should be the potential segmentation.

Second, TV shopping marketers should recruit attractive hosts and celebrities with friendly attitudes and rich product knowledge. Because these hosts and celebrities can raise viewers' excitement and pleasure, marketers not only increase message effectiveness but also attract consumers with low affinity. Specifically, in this era of social media, hosts and celebrities need to write and produce their weekly blogs, interact with customers via social media and work on a variety of live and non-live TV platforms.

Third, this study shows that perceived risk has the second strongest impact on impulse buying urge, meaning that TV shopping channels may lose potential buyers if people perceive that they are risky. TV shopping managers should thus develop strategies to reduce viewers' risk perceptions, such as providing product quality guarantees or pricing comparison information. To reduce financial risk, the payment security should be guaranteed.

Fourth, TV shopping channels should incorporate with online channels. This study finds the length of browsing is associated with time available. Less available time leads to browse TV shopping program less. Online shopping is another way to hook potential customers. For example, QVC, the largest TV shopping channel, transforms itself as a digital retailer that uses TV as one of its shop windows (Stevens, 2017). They only feature the product at a time on TV, but customers can buy any of their products anytime on their websites and mobile apps. To reduce the disadvantage of time unavailability, TV shopping marketers should integrate different channels.

Limitations and directions of future study

As interesting and revealing as this study's results are, it has some limitations which offer directions for future research. First, the framework in this study should be further replicated and examined in different markets. Because the metaphor in TV shopping business is usually different among individual perceived performance and involvement (Alcañiz et al., 2004; Blasco-Arcas et al., 2013), the factors which influence viewers' buying urge may be different as well. Thus, future research could apply and modify our comprehensive framework to different individual differences. In addition, this study does not examine the interaction effects between variables. For example, money available may be more relevant to consumers with high rather than low perceived risk (Sharma et al., 2014). In addition, attractive hosts and celebrities may interact with some demographic variables, such as age or education

(Segal and Podoshen, 2013). The causal and interaction relations among these variables may be explored by subsequent studies.

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