

## 線上行銷資源對線上行為意圖之影響

曾紀幸\*、陳美佑\*\*

### 摘要

線上購買行為與傳統消費者行為相當不同(Butler & Peppard, 1998; Kono, 2009)。大部分有關線上消費者行為的研究著重於消費者的決策過程，鮮少談到企業如何獲取線上的市場。因此，本研究整合資源基礎理論與 TAM (科技接受模式)探討線上關鍵行銷資源對消費者購買行為的影響。再者，本研究採用信任與知覺有用性當作中介變數。調查 340 份有效問卷後，本研究發現線上聲譽、線上技術能力與線上品牌社群，對購買意圖有顯著的正向影響。此外，三類線上資源透過對購物網站的信任與知覺有用性，顯著地會強化消費者的購買意圖。這些發現建議線上賣家首先必須累積三類關鍵的線上行銷資源，而信任與知覺有用性也是線上賣家關鍵的成功因素。

關鍵字：線上行銷資源、購買意圖、線上消費者行為、信任、知覺有用性

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## The Influence of Firms' Online Marketing Resources on Online Behavior Intention

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### Abstract

Online purchase behavior is quite different from the traditional consumer behavior (Butler & Peppard, 1998; Kono, 2009). Most research related to online consumer behavior mainly focused on consumers' decision process and seldom suggest what enterprises can do to capture online market. Therefore, this study integrated resources based theory and TAM (technology acceptance model) to explore the influence of online marketing key resources on consumers' purchase behavior. Furthermore, this study adopted trust and perceived usefulness as mediating variables. After surveying 340 valid questionnaires, we found that online reputation, online technological capabilities and online brand community have significantly positive effects on purchase intention. Besides, through both trust in shopping website and perceived usefulness, three kinds of online resources will significantly enhance consumers' purchase intention. These findings suggest that online vendor should cultivate the three key online marketing resources firstly. Trust and perceived usefulness are also key successful factors for online vendor.

Keyword: Online marketing resources, Purchase intention, Online consumer behavior, Trust, Perceived usefulness

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## 1. Introduction

As the development of information and communication technologies, online shopping has possessed more important role in retail market. Ninety-six percent of online users have online shopping experience (Ministry of Economic Affairs, 2013a). According to MIC survey (Chang, 2018), the amounts of online shopping from 2014 to 2017 are 21681, 24744, 27715, and 27715 respectively. About 94% online shopping is through online shopping platform. The survey of MIC shows there are 15 new online platform launch e-business from 2014 to 2017, while there are 7 online platforms withdraw from 2016 to 2017. Furthermore, there are 3 online platforms downsize in 2017. This indicates that not every online vendor can be successful in spite of the boost of online market. In 2012, forty-five percent of online vendor were still not profitable due to intense competition (Ministry of Economic Affairs, 2013b). Reuber and Fischer (2011) firstly proposed three important online marketing resources (online reputation, online technological capabilities, and online brand communities) which are helpful for pursuing international opportunities when competing in internet-enabled markets. Following the perspective of online marketing resources, this study will explore the key successful factors for online vendor. Based on firm's strategy level, this study will apply Reuber and Fischer (2011)'s perspective and find out how online vendor can be successful.

Traditionally, consumer behavior models, such as AIDA model (Strong, 1925), EKB model (Engel, Kollat, & Blackwell, 1973) and EBM model (Engel, Blackwell, & Miniard, 1995), are used to explain all aspects of the buying situation. When consumers are interesting in some products they will search information and then evaluate it to make decision. However, marketing issues of online shopping at each stage of consumer decision making are different from the physical-world (Butler & Peppard, 1998). The *marketspace* is not an electronic replication of the *marketplace*. In short, traditional model is no longer able to explain online purchase behavior (Butler & Peppard, 1998; Kono, 2009). Therefore, it's worthwhile to further explore online

consumers' behavior.

The technology acceptance model (TAM), introduced by Davis (1986), was adapted from the theory of reasoned action (TRA) and theory of planned behavior (TPB) (Sentosa & Mat, 2012). TAM uses TRA as a theoretical basis for specifying the causal linkages between two key beliefs: perceived usefulness and perceived ease of use, and users' attitudes, intentions and actual computer adoption behavior (Sentosa & Mat, 2012). The TAM provides an explanation of the determinants of computer acceptance and is widely used to explain IT consumer behavior (Davis, Bagozzi, & Warshaw, 1989). Drawing from TAM, this research will further explore online shopping behavior.

In the past, consumer behavior theory and TAM are major theory used to explore online shopping behavior. However, they focus more on technology or consumers' perspective but seldom suggest what enterprises can do. Not to mention the key successful factors for online vendor. Resource based theory is widely used to explain enterprises' strategy options. Besides, e-commerce success, especially in the business-to-consumer area, is determined by whether consumers trust sellers and products they cannot see or touch (Lee & Turban, 2001). Therefore, this research will integrate resources based perspective and trust into TAM model. This study will treat trust as a mediator and will explore major firms' resources cause to be successful in online context.

## **2. Literature Review**

### **2.1. Theoretical Background**

The AIDA (attention, interest, desire, action) is the first model explaining consumer's behavior (Strong, 1925). After that, EKB model (Engel et al., 1973) and EBM model (Engel et al., 1995) were proposed to explain all aspects of the buying situation. Drawing from previous studies, Teo and Yeong concluded the core decision process: need recognition, information search, alternative evaluation, purchase, and after purchase evaluation (Teo & Yeong, 2003). The latest "AISAS" purchase model,

deriving from online behavior observation, contains five processes: attention, interest, search, action, and share (Kono, 2009). Among these kinds of behavior, search and share are especially important for online shopping behavior. Nevertheless, the model left a question that how companies enhance online consumers' attitude and intention.

The TAM is powerful to explain users' attitude toward using new technology. In the TAM, external variables will influence users' perceived of usefulness and ease of use the information technology. Users' perception will further influence their attitude toward using and intention to use the new technology (Davis et al., 1989). However, the TAM focuses more on consumers' perspective or information technology but failed to stand in the enterprises' position. It still left a question that what online vendor can do in order to encourage online consumers' purchase intention through the online vendor's website.

Resource based perspective is widely used to explain enterprises' strategy options (Acedo, Barroso, & Galan, 2006). Firm's resources will determine the optimal growth of the firm (Wernerfelt, 1984), and can also be a source of competitive advantage or sustained competitive advantage when they are valuable (Barney, 1991). To obtain sustainable competitive advantage, firms should adopt proper strategy to accumulate valuable resources. Reuber and Fischer (2011) developed a conceptual model through a comprehensive review of literature in diverse fields. They identified three resources expected to be positively related to firms' successful pursuit of internet-enabled markets: online reputation, online technological capabilities and online brand communities. Drawing from their study, this research will integrate resource based perspective into TAM framework to illustrate factors affecting online purchase intention. We adopted the three online marketing resources as the antecedent of consumers' attitude and behavior, so that we are able to provide useful suggestion for online vendor.

Besides, trust has long been recognized as a critical factor leading to success of online vendor (Gefen & Straub, 2004; Kim, Song, Braynov, & Rao, 2005; Lee & Turban, 2001). E-commerce is a less verifiable and controllable environment, so trust plays a critical role in determining consumers' purchase decisions (Wu, 2013). Reuber and Fischer (2011) further proposed that online reputation signals are expected to be

related to a firm's success through perceived trustworthiness rather than directly. Thus, this research adopted trust in shopping website as a mediator in our research framework.

In TAM, perceived usefulness and perceived ease of use are determinants of user behavior. However, Davis (1989) found that usefulness had a significantly greater correlation with usage behavior than did ease of use. Perceived ease of use may actually be a causal antecedent to perceived usefulness, as opposed to a parallel, direct determinant of system usage (Davis, 1989). Therefore, this research only adopted perceived usefulness as the mediator leading to positive behavior intention.

Mapping to TAM model, this research treated three online marketing resources as external variables; trust in shopping website and perceived usefulness as attitude toward using; purchase intention as behavioral intention. The research framework was shown as Figure 1.

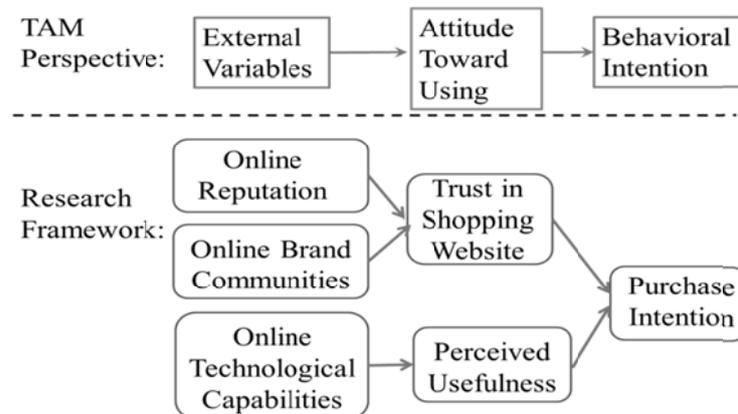


Figure1. Research framework

## 2.2. Hypotheses Development

### 2.2.1. Online Marketing Resources and Behavioral Intention

In the language of strategic field, firm resources are strengths that firms can use to conceive of and implement their strategies (Barney, 1991; Porter, 1981). Firm

resources include all assets controlled by a firm that enable the firm to conceive of and implement strategies that improve its efficiency and effectiveness; they can be conveniently classified into three categories: physical capital resources, human capital resources, and organizational capital resources (Barney, 1991). A firm's resources at a given time could be defined as those tangible and intangible assets which are tied to the firm. Most popular resources are brand names, in-house knowledge of technology, employment of skilled personnel, trade contacts, machinery, efficient procedures, capital, etc (Wernerfelt, 1984).

The resource based perspective asserts that firms gain and sustain competitive advantages by deploying valuable resources (Acedo et al., 2006; Barney, 1991; Ray, Barney, & Muhanna, 2004; Wernerfelt, 1984). Reuber and Fischer (2011) proposed three important online marketing resources (online reputation, online technological capabilities, and online brand communities) which are helpful for pursuing international opportunities when competing in internet-enabled markets. Drawing from previous studies, this research infers that online marketing resources will improve online vendors' competitive advantages and this will further enhance their potential customers' purchase intention. Hypothesis 1 is developed as below:

**H1: Online marketing resources will enhance online consumers' purchase intention.**

*Online Reputation*

A firm's reputation is a perceptual representation of a company's past actions and future prospects that describe the firm's overall appeal to all its key constituents (Fombrun, 1996). Therefore, online reputation can be defined as this perceptual representation among online constituents (Reuber & Fischer, 2011).

A firm's reputation has been widely considered to be a valuable resource (Amit & Schoemaker, 1993; Barney, 1991). Firms with favorable reputations benefit because they are more attractive to investors, customers, suppliers, and employees. Furthermore, online reputation is helpful for yielding substantial competitive because

there is an increased capacity for herding behavior, with buyers imitating the purchase decisions of previous buyers (Reuber & Fischer, 2011). Therefore, online reputation will enhance online consumers' purchase intention.

**H1-1: Online reputation can help to improve online consumers' purchase intention.**

*Online Technological Capabilities*

Online technological capabilities can be defined as the engagement of routines, prior and emergent knowledge, analytic processes, and simple rules to turn information technology into customer value (Zhu & Kraemer, 2002). Online technological capabilities are a firm-specific resource because the sustainability of the competitive advantage from technology lies in the firm's ability to configure and leverage technological components in a rapidly changing technological context (Zhu & Kraemer, 2002).

Online technological capacities are crucial in shaping customers' initial impression of a website's value. According to the impression, customers determine whether they will continue using the website or not (Barnes & Vidgen, 2006). Furthermore, the quality of enterprise websites has become a key indicator of how well a company is likely to satisfy its customers (King & Liou, 2004; Udo, Bagchi, & Kirs, 2010). Online technological capabilities are helpful for online vendor to discover and exploit opportunities better and faster than competitors (Reuber & Fischer, 2011). Besides, firms possessing such capabilities are more successful in their use of internet-based export channels (Morgan-Thomas & Bridgewater, 2004). Firms with online technology are able to customize the online experience for particular markets, so they are more likely to be successful. Therefore, this research inferred that online technology capabilities will enhance online consumers' purchase intention.

**H1-2: Online technological capabilities can help to improve online consumers' purchase intention.**

### *Online Brand Communities*

Brand communities are essentially a place for people who admire a certain brand to socialize in the context provided by that brand (McAlexander, Schouten, & Koenig, 2002; Muniz & O'Guinn, 2001). Online brand community can be defined as an online specialized, non-geographically bound community, based on a structured set of social relationships among admirers of a brand (Muniz & O'Guinn, 2001).

Brand community practices gradually gained more attention from marketing researchers and practitioners. As the development of Internet technologies, the brand communities and their online platforms are more and more important (Habibi, Laroche, & Richard, 2014). Prospective buyers always want online information about sellers' quality to lower their search costs (Chen, Iyer, & Padmanabhan, 2002). Online brand communities enable individual buyers to communicate with sellers or exchange relevant information (Schau, Muñiz, & Arnould, 2009), so online brand communities can provide competitive rewards (Schau et al., 2009). Online brand communities can help online vendor to discover, evaluate and exploit international opportunities because they can provide information about buyers and build positive brand meanings (Reuber & Fischer, 2011). Therefore, this research proposed Hypothesis 1-3 as below.

**H1-3: Online brand communities can help to improve online consumers' purchase intention.**

### ***2.2.2. The Mediating Effect of Trust in Shopping Website***

In e-commerce, trust has been recognized as a critical success factor, and has been the focus of many studies (Gefen & Straub, 2004; Kim et al., 2005; Lee & Turban, 2001). Trust is an especially important factor under conditions of uncertainty and risk (Lee & Turban, 2001). Trust is the willingness of a person to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action (Mayer, Davis, & Schoorman, 1995). Therefore, trust can be treated as a customer's attitude to e-commerce business. Mapping to TAM, this study proposed

that trust is an important attitude toward using the shopping website.

Researchers agreed that trust is multidimensional, and the most cited three dimensions of trust are ability, integrity, and benevolence (Gefen & Straub, 2004; Lu, Zhao, & Wang, 2010). Ability is the skills that allow a trustee to be perceived competent in a specific area; Integrity is the expectation that the trustee will act according to social norms; Benevolence is that the trustee will care about or do good to the trustor (Lu et al., 2010). From the perspective of C2C e-commerce buyers' behavior, there are two kinds of trust: trust in the vendor or website and trust in members (Lu et al., 2010). This study adopted the concept of trust in the vendor or website due to our research purpose.

Firms have good reputation represent their past actions and future prospects will appeal to all its key constituents (Fombrun, 1996), so firms with favorable reputations will be more attractive to investors, customers, suppliers, and employees (Reuber & Fischer, 2011). Therefore, online consumers will tend to trust in online vendors possessing good reputation. Previous studies on e-commerce have revealed the importance of trust in affecting consumers' behavior (Everard & Galletta, 2005; Gefen, Karahanna, & Straub, 2003). When consumers trust an online store, they will be more likely to purchase there. Therefore, this research proposed that online reputation will increase potential customers' trust and this will enhance their purchase intention. Hypothesis 2 was developed as below.

**H2: Trust in online vendor mediates the relation between online reputation and online consumers' purchase intention.**

Many firms have launched virtual communities for their customers, Porter and Donthu (2008) proposed that cultivating trust is especially important as managing virtual communities. Online brand community is a kind of virtual communities for helping firms to establish relationship with potential customers. Some scholars considered trust as a moderator or a mediator to explain the influence of eWOM on purchase intention (Mayer et al., 1995). Online brand communities provide the

platform for online consumers to communicate with each other and to forge and sustain relationships between themselves and the firms they do business with (Sinkovics & Penz, 2005). These kinds of online interactions can provide companies with important information about their markets and then can help companies to cultivate trust (Wynne, Berthon, Pitt, Ewing, & Napoli, 2001). Therefore, members of online brand community are more likely to cultivate trust because they have better relationship with the online vendor, and this leads to improve online consumers' purchase intention. Therefore, this study proposed Hypothesis 3 as below.

**H3: Trust in online vendor mediates the relation between online brand community and online consumers' purchase intention.**

### ***2.2.3. The Mediating Effect of Perceived Usefulness***

Perceived usefulness can be defined as the degree to which a person believes that using a particular system would enhance his or her job performance. A system high in perceived usefulness is one for which a user believes in the existence of a positive use-performance relationship (Davis, 1989).

Studies based on TAM model suggest that perceived usefulness and ease of use are the critical factors that influence the intention and attitudes of online purchasing (Guo, 2011). Davis (1989) found that usefulness had greater correlation with usage behavior than ease of use. Deriving from the TAM (Davis et al., 1989) and relevant studies (Davis, 1989; Guo, 2011), we treated perceived usefulness as a mediator of online marketing resources and purchase intention.

Online technological capabilities can turn information technology into customer value (Zhu & Kraemer, 2002), so this study inferred that firms' online technological capabilities are the key resources to improve users' perceived usefulness. Many researchers proposed that both service quality and users' satisfaction have direct links to behavioral intentions (Cronin, Brady, & Hult, 2000; Cronin & Taylor, 1992). Thus, we suggested that when online vendor possess good technological capabilities, then

their potential customers are more likely to perceive their website are useful. When potential customers satisfy vendors' website, then their purchase intention will be enhanced.

**H4: Perceived usefulness mediates the relation between online technological capacities and online consumers' purchase intention.**

### **3. Method**

#### **3.1. Data Collection**

This research adopted online users in Taiwan as research samples because Taiwan's Internet penetration rate is up to 75.4%. Furthermore, the main purposes of personal Internet are participating in virtual communities, online shopping, and playing online game (Taiwan Network Information Center, 2012). Therefore, Taiwanese data are representative for e-commerce related research.

This research used mySurvey (<http://www.mysurvey.tw>) to create online questionnaires. To gather data, the URL was posted on the most popular websites in Taiwan including online retailers' brand communities (such as fans group on Facebook and Line, PTT, and blogs). Any single computer was restricted from submitting more than one questionnaire in order to avoid duplicate responses. A total of 413 responses were received and 73 invalid responses were excluded. Invalid responses include those containing more than five missing values, those with the same answer to all questions, and those that answered reverse and general questions in the same way. There were 340 valid responses, resulting in a validity rate of 82%.

Sample representativeness is always the major issue for an online survey. This research conducted a test to ensure the representativeness of the response sample. The population of the Internet users is hard to define and there is no sampling frame for researchers. This research found a survey of 2012 online shopping behavior (Chen, 2013), with 7685 samples, by the Market Intelligence & Consulting Institute (MIC).

Chi-square testing shows that there is no significant difference between these two studies except age (Table 1). Therefore, this research possesses representativeness.

Table 1. Sample description and Chi-square testing ( $N=340$ )

Demographics	Research Sample		2012 Survey of MIC <sup>a</sup>	$\chi^2$
	Frequency	Percent ( $o_i$ )	Percent ( $e_i$ )	$(o_i - e_i)^2 / e_i$
<b>Gender</b>				
Female	209	61	62	0.007
Male	131	39	38	0.004
Total	340			0.011 <sup>b</sup>
<b>Education</b>				
Below Junior High School	2	1	2	1.257
High School	31	9	12	0.701
College / University	244	72	69	0.131
Graduate School	63	18	17	0.172
Total	340			2.260 <sup>c</sup>
<b>Age</b>				
Under 19	19	6	8	0.720
20 - 24	171	50	21	42.327
25 - 29	62	18	22	0.565
30 - 34	36	11	22	5.678
35 - 39	24	7	13	2.748
40 - 44	12	3	7	2.055
Above 45	16	5	7	1.045
Total	340			55.138 <sup>d</sup>
<b>Income<sup>f</sup></b>				
Under 9,999	114	34	45	3.029
10,000 – 19,999	53	16	19	0.455
20,000 – 29,999	83	24	15	6.227
30,000 – 39,999	45	13	10	0.951
40,000 – 49,999	22	6	6	0.112
Above 50,000	23	7	5	0.262
Total	340			11.036 <sup>e</sup>

Note. Two studies adopted different classification of age and income, so it is unable to conduct Chi-square testing.

<sup>a</sup> Chen, Y.C., 2012 *Survey of online shopping behavior*, from <http://bytsai.mtwww.mt.au.edu.tw/ezcatfiles/b127/img/img/135575628.pdf>. Accessed on June 16, 2013. 2013, Market Intelligence & Consulting Institute, Institute for Information Industry.

<sup>b</sup>  $\chi^2(0.95, 1) = 3.84$

<sup>c</sup>  $\chi^2(0.95, 3) = 7.81$

<sup>d</sup>  $\chi^2(0.95, 6) = 12.592$

<sup>e</sup>  $\chi^2(0.95, 5) = 11.070$

<sup>f</sup> The average monthly income of NT dollars

### 3.2. Measures

Drawing from previous studies, this research will adopt relevant research's measurement. The detailed measurement of all constructs are shown as Table 2.

Table 2. Results of construct validity and reliability (N=340)

Variables	Factor Loadings	Eigenvalue	Cumulative explained variance (%)
<b>Online Resources</b>			
<i>Online Reputation</i> ( $r=.412^{**}$ )			
A shopping website has a reputation for being honest	.816		
A shopping website has a bad reputation in the market (reverse)	.740		
		2.548	63.706
<i>Online Brand Communities</i> ( $\alpha=0.805$ )			
I benefit from following the brand community's rules	.589		
I am motivated to participate in the brand community's activities because I feel better afterwards	.839		
I am motivated to participate in the brand community's activities because I am able to support other members	.858		
I am motivated to participate in the brand community's activities because I am able to reach personal goals	.873		
<i>Online Technological Capabilities</i> ( $r=.440^{**}$ )			
The shopping website has interactive features that fit my needs.	.736		
The shopping website helps me to evaluate offerings that fit my needs.	.833		
		4.449	55.610
<b>Trust in Shopping Website</b> ( $\alpha=0.884$ )			
<i>Ability</i>			
I believe that A shopping website has the skills and expertise to meet most customer needs	.730		
I believe that A shopping website has the skills and expertise to provide quality service to buyers and sellers	.746		
		.774	
<i>Integrity</i>			
I believe that A shopping website is fair in its conduct of transactions between sellers and buyers			
I believe that A shopping website is fair in its use of private user data collected during a transaction	.677		
I believe that A shopping website is fair in its service policies for buyers and sellers	.851		
		.690	
<i>Benevolence</i>			
I believe that A shopping website is open and receptive to users' needs			
I believe that A shopping website keeps its users' interests in mind during most transactions	.737		
I believe that A shopping website makes good-faith efforts to address most users' concerns	.746		
<b>Perceived Usefulness</b> ( $r=.580^{**}$ )			

A shopping website made me get shopping done efficiently	.827		
It's useful in getting shopping done in A shopping website	.847		
<b>Purchase Intention</b> ( $\alpha=0.818$ )		2.203	73.443
Given the chance, I would consider purchasing products on the A shopping website in the future	.853		
It's likely that I will actually purchase products on the A shopping website in the near future	.849		
Given the opportunity, I intend to purchase products on the A shopping website	.869		

\*\*  $p < .05$ .

### 3.2.1. The Mediating Effect of Perceived Usefulness

According to Reuber and Fischer (2011)'s study, this research identified online reputation, online brand communities, and online technological capabilities as the three marketing resources expected to be positively related firms' successful pursuit of online market.

**Online reputation.** Following Fombrun (1996)'s definition, this research defined online reputation as the consumers' perception that they believe online vendor will have good faith and care about customers. This study adopted Doney and Cannon (1997)'s measurement of supplier firm reputation because their research subject is buyer-seller relationships which is similar to our study.

**Online brand community.** Drawing from Muniz and O'Guinn (2001)'s definition, this research defined online brand community as a virtual community built by the brand owned company and based on a structured set of social relationships among admirers of the brand. The study adopt Algesheimer, Dholakia, and Herrmann (2005)'s measurement to measure members' community engagement because they developed a conceptual model to explore the influence of brand community on members' intention and behaviors. Their measurement of brand community is suitable for our research.

**Online technological capabilities.** Drawing from Zhu and Kraemer (2002)'s definition, this research defined online technological capabilities as the brand owned company's abilities to build a website which meet personal need, including product information, purchase suggestion, and personalized design. Reuber and Fischer (2011)

reviewed several research discussing technological capabilities. Among these studies, Steenkamp and Geyskens (2006)' measurement is the most suitable one for our research, so we adopted their measure of website's personalization as online technological capabilities measurement.

### ***3.2.2. Trust in Shopping Website***

This study used Lu et al. (2010)'s definition and measurement to measure trust in the shopping website. Following previous studies (Gefen & Straub, 2004; Lu et al., 2010; Mayer et al., 1995), this research measure three dimensions of trust which are ability, integrity, and benevolence.

### ***3.2.3. Perceived Usefulness***

Perceived usefulness can be defined as the prospective users' subjective probability that using a specific application system will increase their job performance within an organizational context (Davis et al., 1989). Drawing from this definition, the study adopted Henderson and Divett (2003)'s measurement to measure users' perceived usefulness of using the shopping website, because their study objective is electronic supermarket which is similar to ours.

### ***3.2.4. Purchase Intention***

This research adopted Lu et al. (2010)'s measurement to measure purchase intention, because their research objective, Taobao, is a shopping website like our research objective.

### ***3.2.5. Control Variables***

As previously noted, behavioral intention may be affected by consumer demographics. Therefore, gender, age, education, and income were used as control variables. Gender is a dummy variable for which "0" is assigned to females and "1" to males. The other three control variables are quasi-interval scales.

### **3.3. Measurement Development**

#### ***3.3.1. Questionnaire Design***

Questions came from existing scales that were developed and tested in previous research. Because the original items were in English, the study used the following procedures to ensure the translation validity. First, a researcher whose native language is Chinese forward translated these items into Chinese. Next, another researcher independently backward translated these items into English. Subsequently, the two researchers compared and discussed the two English versions to develop the first Chinese version of the items. After minor revisions to the instrument, 33 participants were asked to fill questionnaire. According to the pretest, this research revised the questionnaire again. According to researchers' (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003) suggestion, this study sought to reduce method bias by guaranteeing response anonymity and psychologically separating the dependent and independent variables by mixing all questions. Furthermore, the threat of common method variance was investigated via the Harman one-factor test. No single factor emerged from the analysis nor did a single general factor account for most of the variance in the variables. As a result, common method bias appears to be minimal.

#### ***3.3.2. Validity and Reliability***

First of all, the study did items analysis and deleted items possessing low factor loadings and low reliability of the construct. Originally, online reputation, online technological capabilities, and perceived usefulness contain three measurement items respectively, the research deleted one of the three items in the result. Finally, this research used factor analysis to verify construct validity. Table 2 shows that all variables have construct validity.

Besides, the Cronbach's alpha values of online brand communities, trust in shopping website, and purchase intention are .805, .884, and .818 respectively. Therefore, the measurement of these constructs is statistically reliable. However,

online reputation, online technological capabilities, and perceived usefulness possessed only two measurement items, so this study adopted correlation analysis to test their reliabilities. The result showed that they have reached the statistic significant level.

## 4. Results and Discussion

### 4.1. Results

Table 3 presents the descriptive statistics and Pearson correlation coefficients for the study variables. The correlation matrix indicates that three kinds of online marketing resources, trust in shopping website, perceived usefulness, and purchase intention have highly positive correlation with each other. Besides, gender has significantly positive relationship with purchase intention; while age has the reverse outcome. Gender is a dummy variable which was assigned 0 for female and 1 for male. Therefore, the positive relationship between gender and purchase intention represents that the male are more likely purchase online. The negative correlation between age and purchase online represents that younger people are more likely purchase online.

Table 3. Descriptive statistics and Pearson correlation coefficients ( $N=340$ )

Variables	1	2	3	4	5	6	7	8	9	10
1. Gender <sup>a</sup>	1									
2. Age	-.236**	1								
3. Education	-.036	-.037	1							
4. Monthly Income	-.266**	.632**	.06	1						
5. Online Reputation	.099	-.168**	.039	-.105	1					
6. Online Technological Capabilities	.035	-.066	.092	-.002	.278**	1				
7. Online Brand Communities	.092	-.149**	-.006	-.067	.142**	.571**	1			
8. Perceived Usefulness	.131*	-.128*	.137*	-.027	.562**	.459**	.305**	1		
9. Trust in Shopping Website	.141**	-.185**	.075	-.119*	.522**	.630**	.556**	.722**	1	
10. Purchase Intention	.107*	-.168**	.074	-.061	.482**	.400**	.315**	.714**	.676**	1
Mean	1.610	2.930	3.080	2.680	5.477	4.815	4.350	5.647	5.127	5.491
SD	0.487	1.479	0.542	1.640	0.851	0.988	1.030	0.888	0.819	0.870

<sup>a</sup> Gender: "0" for female and "1" for male

\*  $p < .10$ . \*\*  $p < .05$ . \*\*\*  $p < .01$ .

This study used regression analysis to test Hypothesis 1. Table 4 shows that three kinds of online marketing resources have significantly positive effect on purchase intention. This implies that online reputation, online technological capabilities, and online brand communities will significantly enhance purchase intention. Thus, **H1 is supported**.

Table 4. The influence of online marketing resources on purchase intention

Variables	Purchase Intention	
	$\beta$	VIF
<i>Control</i>		
Gender	.044	1.094
Age	-.095	1.749
Education	.035	1.027
Monthly Income	.058	1.730
<i>Independent</i>		
Online Reputation	.391***	1.117
Online Technological Capabilities	.208***	1.604
Online Brand Communities	.126**	1.529
Model <i>F</i>	23.449***	
<i>R</i> <sup>2</sup>	.317	

\*  $p < .10$ . \*\*  $p < .05$ . \*\*\*  $p < .01$ .

This research adopted B-K approach (Baron & Kenny, 1986; Kenny, Kashy, & Bolger, 1998) to test Hypotheses 2, 3, and 4. To test for mediation, one should estimate and test three regression equations (Baron & Kenny, 1986). Firstly, the independent variable must affect the mediator. Both trust in shopping website and perceived usefulness are mediators in this research framework. Table 5 shows that online reputation and online brand communities significantly influence trust in shopping website. Table 7 shows that online technological capabilities significantly affect perceived usefulness. Thus, it passes the first criteria. Secondly, the independent variable must be shown to affect the dependent variable. Table 4 shows that three kinds of online marketing resources have significantly positive influence on purchase intention. Thirdly, the mediator must affect the dependent variable in the third equation which is the regression of the dependent variable on both independent variable and mediator. Table 6 shows that when trust in shopping website was put into models, there

was a significant increase in Model fit ( $\Delta R^2$  reaches a statistic significance). Table 8 also shows that there was a significant increase in Model fit when perceived usefulness was put into models. These results imply that both trust in shopping website and perceived usefulness possesses full mediating effect. Online reputation and online brand communities will enhance purchase intention though trust in shopping website. Therefore, **Hypotheses 2 and 3 were supported**. On the other hand, online technological capabilities will improve purchase intention through perceived usefulness. Thus, **Hypothesis 4 was supported**.

Table 5. The influence of online marketing resources on trust in shopping website

Variables	Trust in Shopping Website	
	$\beta$	VIF
<b>Control</b>		
Gender	.053	1.094
Age	-.021	1.749
Education	.033	1.027
Monthly Income	-.034	1.730
<b>Independent</b>		
Online Reputation	.368***	1.117
Online Brand Communities	.291***	1.529
Model <i>F</i>	69.979***	
<i>R</i> <sup>2</sup>	.588	

\*  $p < .10$ . \*\*  $p < .05$ . \*\*\*  $p < .01$ .

Table 6. The influence of online marketing resources and trust in shopping website on purchase intention

Variables	Purchase Intention			
	Model 1		Model 2	
	$\beta$	VIF	$\beta$	VIF
<b>Control</b>				
Gender	.044	1.094	.011	1.101
Age	-.095	1.749	-.082	1.750
Education	.035	1.027	.015	1.030
Monthly Income	.058	1.730	.080	1.733
<b>Independent</b>				
Online Reputation	.391***	1.117	.161***	1.453
Online Brand Communities	.126**	1.529	-.055	1.738
<b>Mediator</b>				
Trust in Shopping Website			.623***	2.475
Model <i>F</i>	23.449***		39.350***	
<i>R</i> <sup>2</sup>	.317		.475	

\*  $p < .10$ . \*\*  $p < .05$ . \*\*\*  $p < .01$ .

Table 7. The influence of online technological capabilities on perceived usefulness

Variables	Perceived Usefulness	
	$\beta$	VIF
<b>Control</b>		
Gender	.111**	1.087
Age	-.113*	1.706
Education	.093*	1.021
Monthly Income	.069	1.729
<b>Independent</b>		
Online Technological Capabilities	.440***	1.015
Model <i>F</i>	21.282***	
<i>R</i> <sup>2</sup>	.230	

\*  $p < .10$ . \*\*  $p < .05$ . \*\*\*  $p < .01$ .

Table 8. The influence of online technological capabilities and perceived usefulness on purchase intention

Variables	Purchase Intention			
	Model 1		Model 2	
	$\beta$	VIF	$\beta$	VIF
<b>Control</b>				
Gender	.072	1.087	-.002	1.103
Age	-.162**	1.706	-.086*	1.723
Education	.032	1.021	-.029	1.033
Monthly Income	.059	1.729	.013	1.735
<b>Independent</b>				
Online Technological Capabilities	.384***	1.015	.091**	1.270
<b>Mediator</b>				
Perceived Usefulness			.666***	1.319
Model <i>F</i>	15.358***		60.898***	
<i>R</i> <sup>2</sup>	.175		.515	

\*  $p < .10$ . \*\*  $p < .05$ . \*\*\*  $p < .01$ .

Table 3 shows all independent and dependent variables have high correlation with each other; this implies the possibility of multicollinearity problem. However, variance inflation factors (VIF) in all regression models are below 3; it indicates that there is no significant sign of a multicollinearity problem.

## 4.2. Discussion

This research integrated resource based theory into TAM and explored key

successful factors for online vendor. According to Reuber and Fischer (2011)'s work, this study adopted online reputation, online technological capabilities and online brand communities as key marketing resources which will be helpful for online vendor to capture online market. We further treated trust in shopping website and perceived usefulness as mediators. Research results show that all hypotheses were accepted.

Besides, we found that online reputation and online technological capabilities possess higher influence on purchase intention (Table 4). This indicates that the importance of various online marketing resources is different. As online shopping involves a virtual store rather than a physical store, online shopping behaviors are in the particular setting of a web-based environment (Shankar, Smith, & Rangaswamy, 2003; Teo, 2006). In the case of consumers interacting with online stores, the system interface and online shoppers are main focus. Thus, the design of system interface should be perceived by consumers to be both trustworthy and user-friendly (Wu, 2013). Furthermore, firm's resources can be a source of competitive advantage or sustained competitive advantage only when they are valuable (Barney, 1991). Therefore, the importance of online reputation and online technological capabilities are higher than online brand communities.

As to the mediators' effect, we found that when trust in shopping website put into model, then the influence of online brand communities on purchase intention disappear (Table 6). Although the online reputation still has significant impact on purchase intention, the trust in shopping website possesses major influence. Similarly, the influence of perceived usefulness is higher than online technological capabilities (Table 8). These results show that the value of online marketing resources will appear only when they lead to online customers' trust and perceived usefulness.

## **5. Implications and Limitation**

### **5.1. Academic Implication**

Theory of consumer behavior (Engel et al., 1995; Engel et al., 1973) and TAM

(Davis et al., 1989) are two main streams to explore factors influencing online purchase intention. However, online consumer behavior is quite different from physical shopping behavior (Butler & Peppard, 1998; Kono, 2009). The TAM was designed to apply to computer usage behavior and to explain end-user's behavior towards information technology (Davis et al., 1989; Saadé, Nebebe, & Tan, 2007). Many researchers have applied TAM or TPB to explore online shopping behavior (Gefen et al., 2003; Guo, 2011; Henderson & Divett, 2003), but they focused more on technological aspects or consumers' perspective and seldom suggested what online vendor can do.

To provide practical suggestion for online vendor, this research integrated resource based theory into our model because resource based perspective is widely applied to explore enterprises' strategy options (Acedo et al., 2006). To obtain sustainable competitive advantage, firms should adopt proper strategy to accumulate valuable resources. This study verified three key online marketing resources which will enhance purchase intention. Besides, Barney (1991) mentioned that firm's resources can be a source of competitive advantage only when they are valuable. This research further found that online reputation and online technological capabilities are more important than online brand communities. This phenomenon can be attributed to the characteristics of online environment. This insight contributes to refine theory relating to consumer behavior in digital context.

In the TAM, users' perceived of usefulness and ease of use are two mediators that will affect users' attitude toward using and intention to use the new technology (Davis et al., 1989). Davis further found that usefulness had a significantly greater correlation with usage behavior than did ease of use. Thus, we adopted perceived usefulness as the mediator. In addition to this, trust has been long recognized as a critical success factor, and has been the focus of many e-commerce studies (Gefen & Straub, 2004; Kim et al., 2005; Lee & Turban, 2001), so this study also treated trust in shopping website as the mediator. Research results show that both mediators have fully mediating effect. This finding provides new insight for those online consumer behavior studies based on

TAM.

In summary, this research integrated several theories to close past research gap. For the consumer behavior theory, this study provides key successful factors for online vendor. For the TAM, this study found valuable mediators which will enhance online consumers' purchase intention

## **5.2. Managerial Implications**

According to the research findings, this study found that online reputation, online brand communities, and online technological capabilities will improve online consumers' purchase intention. Furthermore, the study verified that both trust in shopping website and perceived usefulness were important mediators. In other words, three kinds of online resources will enhance online purchase intention through these two mediators. These findings provide online vendors several managerial implications. First of all, online vendor should accumulate the three online marketing resources. In doing so, they are able to improve potential customers' trust and positive attitude toward the shopping website. To the ultimate, the purchase intention of participants will increase. Therefore, this study proposes useful suggestion to practitioners dedicating in e-commerce.

## **5.3. Limitations and Future Research Suggestions**

There are several limitations in this study. Drawing from several theories, we proposed the research framework. However, there are other potential confounding factors that will influence users' purchase intention. For example, e-WOM (Cheng & Huang, 2013; Prendergast, Ko, & Yuen, 2010) and online advertisement (Ayub, Yusoff, & Halim, 2009; Pashkevich, Dorai-Raj, Kellar, & Zigmond, 2013) will influence online purchase intention. To focus on exploring the influence of online marketing resources, this research didn't consider such confounding factors.

Secondly, this research adopted previous literature to measure online reputation, online technological capabilities, and perceived usefulness. Originally, there are three

measurement items for each construct, but this study should delete one item in each due to low factor loadings and low reliability. After all, two items were left for these three constructs. This might affect the research result. However, all constructs reach statistical validity and reliability. We believe that the issue would be minor.

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