

# Using Online Social Networks to Globalize and Popularize Product Brands in Different Cultural Areas: A Relational Network Model

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## ABSTRACT

The purpose of this paper is to investigate the influential factors of online social network advertising in three different cultural areas, being China, India, and the US. This study uses the social capital theory (SCT), and Guanxi theory, as two types of relation theories then collects data from the virtual community (or online social network, VC) members of three different areas, a total of 730 valid surveys were completed for model testing. The findings show that (1) building the relationship dimension of the SCT (trust, identification, and the norm of reciprocity) for the VC members in China and the US societies is more useful than the India society, to spread the brands through the VC; (2) good guanxi for the VC members in China's society is more useful than the Indian and the US societies to spread brands through VC. The result demonstrates that culture differentiation should be consider when researchers investigate the impact of VC advertising contact and attention, attitude towards VC advertising, and purchase intention in VC context.

## KEYWORDS

Online Social Network, Social Capital Theory, Guanxi Theory, Online Social Network Advertising Contact and Attention

## 1. INTRODUCTION

Due to the rapid development and popularity of the Internet, there has been an unprecedented change in the economy, politics, and lifestyle. Internet technology and services as a crucial medium beyond the limit of time and space, providing billions of people access to exchange information while subverting the definition of traditional social networks (Mamonov et al., 2016). An online social network is a virtual community (VC) in cyberspace, providing functions like posting articles, sharing photos and videos, writing a blog, and exchanging ideas (e.g. Blog, Wikipedia, Facebook, QQ Net, WeChat, Weibo, LINE) (Mamonov et al., 2016; Piyathasanan et al., 2015). In these networks, members can communicate, interact with each other (Lin, 2008), and be at the forefront with the real world (Chang & Chuang, 2011). In fact, VC has already become part of the Internet users' life, which has tremendously influenced the interactive style of people and thereby meets the demands of the users' interaction (Chang & Chuang, 2011).

In light of this, VC users have the chance to interact and discuss product brands online, which has led many enterprises to develop their own VC (Gongla & Rizzuto, 2001). For instance, Burberry

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has created their own digital methods to increase recognition, facilitate contact, and improve their communication with many more customers. As a result, Facebook has popularized this fashion brand to such an extent that it has made it a leader in the fashion industry (Chang et al., 2013). Therefore, Burberry's customers can use a variety of devices to identify and connect with this digital company through the enterprise community on Facebook (Wu, 2012).

Globalization has already broken through the limitations of space, time, culture, and social structure. However, new ideas are needed to organize style, and to better understand the importance of how to connect ideas and actions to social structures (Chen & Hung, 2010). For the above reasons, it is critical to consider national culture for a competitive and successful globalized enterprise. In short, to publicize products and popular brands, building a relational network for customers through online social networking (or VC) is evidently the prime mission. However, few scholars have mentioned how to promote product brands through online advertising that are dependent on cultural differences. Thus, to fill the gap, the first research question of this paper is how to differentiate the relational network of cultures in VC for enterprises to promote their product brands?

Moreover, Eastern and Western academics reflect important differences in the understanding of these two cultures of human action (Jullien, 2004). Based on the Hellenic-Judaeo-Christian traditions, great value is placed on each human life in the West. The life of the community and the family are of greater importance in the East (Suen et al., 2007), which indicates that enterprises could promote a new brand in a shorter time through an online network making it easier than before (e.g., Amerson, Google) (Chang & Wu, 2020). Product brands will also gain an advantage by being spread throughout the world and become gradually globalized, once consumers from different cultural markets accept these brands. Although scholars have studied online advertising based on the Hofstede national culture dimensions (Valaei et al., 2016), however, they did not study what types of relationship will influence the VC members' attitude toward online social network advertising to promote the product brands of enterprises. Meanwhile, due to the Internet population of China, India, and the US being the top three countries in the world (Huang, 2017), and all having different cultures. In light of this, our study has tried to collect data from China, India, and the US, being three different cultural areas of VC members, to integrate the different relationship theories, and placed together for the study of spreading the brand's name. According to the relational dimension that is based on the Social Capital Theory (SCT) (Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998), and the *Guanxi* Theory (GT). Hwang (2015) believed GT can be viewed as universal models applicable to different cultures, and could have different levels of influence to each culture. For this reason, this study tries to understand as to how these two theories can have different types to influence the VC members' behavior in these three different cultural areas.

Nonetheless, since interpersonal relationships change over time, one alters their interactions with one another due to the deeper influences of culture (Hwang, 1987). Once one uses the inappropriate relationships to evaluate others' behavior within different cultures, or misinterpret others' behavior due to a lack of understanding, thus, conflicts arise and negative outcomes occur (Tan & Ludwig, 2016). For the above reasons, it is necessary to apply an appropriate relational model in different cultural aspects for building up relational networks and strategies through VC. Our second research question is thus, how to use the appropriate relations theory to cultivate a relationship which matches the customers' needs and attracts members to participate with VC in different cultural areas?

Finally, this study provides another point of view from which academia can examine and better understand the mechanism of relationship theories that drive the spending behavior of VC members in different cultural areas, and has demonstrated that culture differentiation should be considered when researchers investigate the impact of VC advertising. For practice, VC management should focus on fostering different types of relationships of SCT, or *guanxi*, in VC to the more suitable cultural areas of the VC members, and use these relationships to promote their product brands. Then, VC management will understand and use the appropriate relationship theory to build up connections with their customers, in order to spread the brands' name efficiently. It is hoped that this study can

add more value to the brands, promote industrial restructuring, and provide useful suggestions for the VC management and other new insights.

## **2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT**

In order to spread the product brands efficiently, this study provides a relational network model to enterprises in different cultures accordingly. In this way, enterprises can build up appropriate relationships with local customers, as they also have a more positive attitude, higher purchase intention and behavior through contacting and noticing VC advertising. The relationship between VC advertising attitude, intention, behavior of customers, and relation theories will be discussed in the following sections.

### **2.1 Online Social Network (VC) Advertising Contact and Attention**

Online advertising can transfer product information to customers through the Internet, interact with customers, and in turn, influence their purchase products (Alalwan, 2018; Martins et al., 2019; Mustafi & Hosain, 2020; Zeff & Aronson, 1999). This differs from traditional advertising (Brigish, 1993; Hawkins, 1994). If advertising information relates to customer needs, the result will be a higher usage and better purchase intention. Therefore, as customers enjoy browsing online advertisements, the Internet becomes an important media for advertisers because of its unlimited space and time, resulting in more interactions with the customers (Kerner, 2004).

Korgaonkar and Wolin (2002), believed that due to the honest, reliable, interesting, beneficial, and helpful characteristics of online advertising, many enterprises and websites have adopted the Internet to market and sell their products. Since the first Banner Advertisement in HotWired for AT&T in 1994, online advertisements have been playing an important role (Brackett & Carr, 2001; Choi & Rifon, 2002). In 2019, the revenue of online advertising (US\$124,615 millions) was higher than that of traditional TV advertising (US\$70,756 millions) (IAB, 2020), and has therefore become the popular and effective marketing instrument.

Facebook, the most popular VC, has 2.74 billion monthly active Facebook users, and it was the most frequently visited website via Google in 2020 (Rodriguez, 2020). Although Facebook was initially designed for private usage, it has become so well-known that many businesses use it to promote their brands and products (Bughin & Manyika, 2007; Wen et al., 2009). Thus, this study defines VC advertising as a means of communication with the users of product brands of enterprises on the VC platform. On the one hand, enterprises post and exchange information with each other, to raise the value of VC advertising contact and attention (Willinger et al., 2009; Xu et al., 2008). On the other hand, VC advertising contact and attention provides a platform for customers to post comments, exchange information about new products, provide information on websites, and discuss the value of websites, brands, and products (Mamonov et al., 2016). Using social networks is consequently the most popular online activity (Schmitt et al., 2011; Trusov et al., 2009; Villanueva et al., 2008). Meanwhile, VC advertising contact and attention can help customers exchange ideas of a brand, collect information about products, enhance their attitude to products, and achieve the suppliers' goals for sales of products (Bampo et al., 2008; Hinz et al., 2014; Hinz et al., 2011).

#### ***2.1.1 Online Social Network (VC) Advertising Contact and Attention and Customer Attitude***

VC advertising contact and attention has easily caught the responsiveness of customers, as the content is a crucial factor for online advertisements (Cho, 1999; Husin et al., 2019; Pintado et al., 2017; Yoo & Kim, 2005). In addition, the quantity of information and entertainment value affects the customer's attitude (Sun et al., 2010), and customer attitude will improve positively if the content and type of online advertisement matches their beliefs, attitudes, and values (Wang & Sun, 2010; Wu et al., 2008). For the above reasons, it is useful to increase the customers' contact and attention to online advertising

(Bruner & Kumar, 2000). This study therefore asserts that VC advertising contact and attention will positively improve the VC member's attitude towards VC advertising. Thus, this study posits:

H<sub>1</sub>: VC Advertising contact and attention have a positive effect on the VC member's attitude in VC.

### *2.1.2 Customer Attitude, Intention and Behavior Regarding Online Social Network (VC)'s Advertising Contact and Attention*

Based on an individual's attitude to a specific behavior, their intention and actual behavior can be predicted (Fishbein & Ajzen, 1975). Thus, the connection between attitude and behavior is significant (Bobbitt & Dabholkar, 2001). Meanwhile, regarding the online advertisement, customer attitude is the belief regarding the target, while intention will be influenced by attitude (Wang & Sun, 2010; Wu et al., 2011). Therefore, customers' positive attitudes in e-commerce experience will result in repeated purchasing (Castañeda et al., 2007; Chen & Tan, 2004; Hernández et al., 2010). The relationship among attitude, intention, and behavior of online buying has been proven by many scholars (Ajzen & Fishbein, 1980; Crespo & Bosque, 2010; Khalifa & Shen, 2008). As per the aforementioned reasons, we can assume that the VC members' positive attitudes toward VC advertising will increase their purchase intention, and thereby their purchase intention will improve their purchase behavior (Lee et al., 2011). Thus, this study posits:

H<sub>2</sub>: VC members' attitude towards the VC advertising has a positive effect on their purchase intention.

H<sub>3</sub>: VC members' purchase intention towards the VC advertising has a positive effect on their purchase behavior.

Although H<sub>1</sub>, H<sub>2</sub>, and H<sub>3</sub> have been studied by many scholars, but these scholars did not combine these three hypotheses with different relationship theories in different cultural areas. Therefore, these three hypotheses are novel and value-added more than prior researches.

## **2.2 Relation Theory**

The relational dimension of SCT includes trust, identification, and the norm of reciprocity. The mixed relationship of GT emphasizes relatives, neighbors, classmates, colleagues, and teachers and students who share a common area. For this reason, both of them are suitable to use in the VC.

### *2.2.1 Social Capital Theory (SCT)*

The central proposition of the Social Capital Theory (SCT) is that networks of relationships constitute a valuable resource for the conduct of social affairs, providing their members with "the collectivity-owned capital, a 'credential' which entitles them to credit, in the various senses of the word" (Bourdieu, 1986).

Social capital has been conceptualized as the sum of the assets or resources embedded in the networks of relationships between individuals, communities, networks, or societies (Chang & Chuang, 2011; Okoli & Oh, 2007), and exists through interpersonal relationships among individuals. Therefore, social capital is embedded in the relationships between individuals and their connections with their communities, in which trust, norms, and identification can be considered as social capital (Shi et al., 2015), since they are organizational resources or assets rooted within social relationships that can improve the efficiency of coordinated action (Kankanhalli et al., 2005). Therefore, one will use the embedded sources in the social capital to propose actions (Lin, 2001; Song & Lin, 2009).

Scholars have summarized social capital in three dimensions (Nahapiet & Ghoshal, 1998; Tsai & Ghoshal, 1998): structural, relational, and cognitive capitals. The relationship is a communication pattern which is developed through one's interactions (Granovetter, 1992), and one's behavior is influenced by special relationships (e.g., respect for each other, friendship). Therefore, to explore

how relationships affect VC advertising contact and attention, it is necessary to further study the trust, identification, and the norms of reciprocity of relationship capital (Nahapiet & Ghoshal, 1998).

#### 2.2.1.1 Trust

Trust indicates the willingness of one to be vulnerable to others due to the beliefs of their good intent and concern, competence and capability, and reliability (Mishra, 1996), in turn, this increases the willingness to participate in a social exchange action (Putnam, 1993). Since VC lacks face-to-face communication, trust is the foundation and the critical factor in a successful operation (Lin, 2008). It can facilitate members to interact, exchange information and knowledge (Chai & Kim, 2010; Collins, 2001). Similarly, improving the VC members' trust toward VC decreases the costs and increases the benefits, knowledge, and advantages (Gefen et al., 2003; Ratnasingam, 2005). The VC members' trust toward VC is based on sound privacy and technology mechanisms (Ratnasingam, 2005). Furthermore, the parties understand and appreciate what others want, and this mutual understanding is developed to a point that each can effectively act for the other (du Plooy et al., 2020; Panteli & Sockalingam, 2005). Simply stated, this study believes that VC members' trust in each other not only improves their attitude towards VC advertising, but also their purchase intention (Leong et al., 2020). Meanwhile, it will be influenced by the cultural difference too. Therefore, we posit:

- H<sub>4-1-1</sub>: VC Members' trust has a positive effect on their attitude towards VC advertising in VC.
- H<sub>4-2-1</sub>: VC Members' trust has a positive effect on their purchase intention in VC.
- H<sub>4-3-1</sub>: VC Members' trust has a different effect on their attitude towards VC advertising in different cultural areas.
- H<sub>4-4-1</sub>: VC Members' trust has a different effect on their purchase intention in different cultural areas.

#### 2.2.1.2 Identification

Identification refers to an individual's sense of belonging and a positive feeling towards a virtual community, as their behavior will reflect the values and rules of the community (King et al., 2016). Therefore, this study believes that when VC members identify with each other, it improves their attitudes toward VC advertising. Moreover, when the VC members identify with the group, they will begin to pay closer attention to the other members' behavioral processes and results, thus increasing the interactions between them. In light of this, identification will affect the motivation of exchange, knowledge transference (Kramer et al., 1996), and the frequency of cooperation (Child & Rodrigues, 1996; Lewicki & Bunker, 1996; Simon & Davies, 1996). For the above reasons, this study believes that if VC members identify with each other, it will increase their attitude towards VC advertising, and purchase intention. Meanwhile, it will be influenced by the cultural difference too. Therefore, this study posits:

- H<sub>4-1-2</sub>: VC Members' identification has a positive effect on their attitude towards VC advertising in VC.
- H<sub>4-2-2</sub>: VC Members' identification has a positive effect on their purchase intention in VC.
- H<sub>4-3-2</sub>: VC Members' identification has a different effect on their attitude towards VC advertising in different cultural areas.
- H<sub>4-4-2</sub>: VC Members' identification has a different effect on their purchase intention in different cultural areas.

#### 2.2.1.3 Norm of Reciprocity

A norm exists when the action controlled by a socially defined right is held by others but not the actor, reciprocity reflects the anticipation that online users' collective efforts will be reciprocated (Wasko & Faraj, 2005). As the basic norm of reciprocity is a social cognition of interpersonal indebtedness,

online users are likely to reciprocate the online social support they receive from others, ensuring ongoing social support exchanges, and thereby resulting in a positive relationship between social support and reciprocity (Rheingold, 2000; Schultze & Orlikowski, 2004). For group members, there is a fair cognition in the process of sharing and exchanging knowledge (Chiu et al., 2006), if the expected reciprocity is not achieved, members will stop sharing their knowledge (Chang & Chuang, 2011). Therefore, one will build a network that has acceptable norms to benefit everyone, help each other, and transfer information (Chang & Chuang, 2011; Chiu et al., 2006). Hence, this study believes that the norm of reciprocity will be a significant factor influencing the VC members' attitude toward VC advertising.

According to cooperation, teamwork, and open norms, society is the critical factor of successful and knowledge-intensive enterprises. Therefore, the open norms (e.g., transparent information, response to multiple persons, respect for each other, and acceptance of criticism) can help in creating and transferring knowledge capital of an enterprise (Leonard-Barton, 1995). For the above reasons, this study believes that the norm of reciprocity will influence the VC members' attitude toward VC advertising, and purchase intention. Meanwhile, it will be influenced by the cultural difference too. Therefore, this study posits:

H<sub>4-1-3</sub>: Norm of reciprocity has a positive effect on the VC members' attitude towards VC advertising in VC.

H<sub>4-2-3</sub>: Norm of reciprocity has a positive effect on the VC members' purchase intention in VC.

H<sub>4-3-3</sub>: Norm of reciprocity has a different effect on the VC members' attitude towards VC advertising in different cultural areas.

H<sub>4-4-3</sub>: Norm of reciprocity has a different effect on the VC members' purchase intention in different cultural areas.

### 2.2.2 *Guanxi*<sup>1</sup> Theory (GT)

Ho (1998), asserted that Chinese culture has relational orientation, a concept that describes ordinary behavior. For this reason, the self is not an independent entity, and so the transfer of the individualism characteristic of Western culture to the Chinese relationalist culture will cause conflict. In Chinese culture, an individuals' social behavior depends on their social relationship (Jacobs, 1979). The Chinese tend to apply different rules of social exchange when dealing with people of different relations (Tan & Ludwig, 2016). Due to the deep impact of *guanxi* on Chinese culture, an individual's social relationship is a very important source of power (Burt & Burzynska, 2017). One's power is determined by the extent of control exercised by an individual over resources and one's particular relationship network. The more powerful network an individual has, the greater the advantages one will enjoy (Hwang, 1987).

In light of this, based on the social exchange theory, in the Face and Favor model, Hwang (1987), divided interpersonal relationships into two components: (1) Expressive component: in order to satisfy affective feelings, one will manipulate others to procure some desired material resource from family, close friends, and other congenial groups. These can also generate an individual's feelings of affection, warmth, safety, and attachment. (2) Instrumental component: human beings have strong desires to enlist help from outside resources. Thus, they will make a considerable effort to manipulate others to attain their personal goals.

Hwang (1987), subdivided relationships into three parts (three types of *guanxi*), represented by a dotted line and a solid line, to show the degrees of permeability between the psychological boundaries used by the Chinese: (1) Expressive ties: these are generally a permanent and relatively stable social relationship within families. If people have family relationships (expressive ties), they will handle them with the *need rule* to satisfy the request of the petitioner. (2) Mixed ties: these type of relationships, which have been termed as a particularistic tie, occur mainly among relatives, neighbors, classmates,

colleagues, and teachers and students who share a common area. If people have mixed ties, they will handle their relationship with the *renqing rule*. (3) Instrumental ties: an individual must establish instrumental ties with other people outside their family to attain their material goals. If people are strangers (instrumental tie), they will handle their relationship with the *equity rule*.

Between the instrumental tie and the mixed tie, it is easier for a relationship to become one of a mixed tie from an instrumental tie through *la guanxi* (seeking relation). Hwang (2015) asserted that the Face and Favor model can be viewed as a universal model applicable to different cultures, in which, *renqing* means a positive resource that can be used as a medium of social exchange to influence others and gain what one wants. Hence, this study believes that if VC members have mixed ties, it will improve their attitudes toward VC advertising, and purchase intention. Meanwhile, it will be influenced by the cultural difference too. Therefore, this study posits:

- H<sub>5-1</sub>: Mixed ties of the VC members have a positive effect on their attitude towards VC advertising in VC.
- H<sub>5-2</sub>: Mixed ties of the VC members have a positive effect on their purchase intention in VC.
- H<sub>5-3</sub>: Mixed ties of the VC members have a different effect on their attitude towards VC advertising in different cultural areas.
- H<sub>5-4</sub>: Mixed ties of the VC members have a different effect on their purchase intention in different cultural areas.

The research model in Figure 1 is based on the review of the literature, and summarizes all the hypotheses. As shown in the model, this study attempts to explore the relationship differences of VC, the relationship among VC advertising contact and attention, attitude towards VC advertising, purchase intention, and purchase behavior.

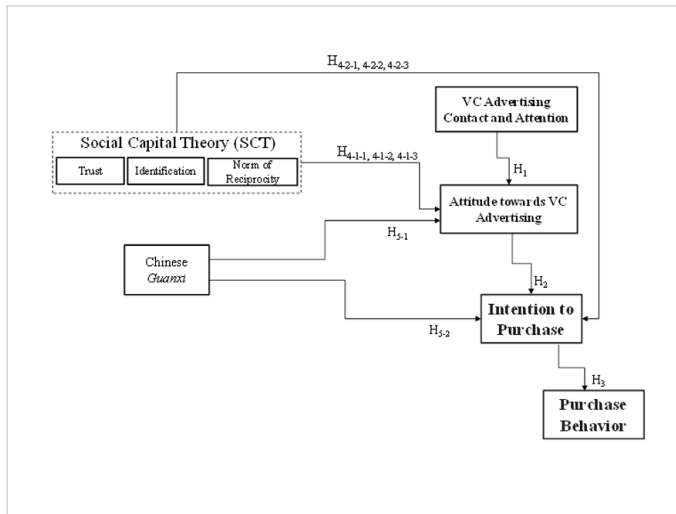
### 3. RESEARCH METHOD

#### 3.1 Survey Administration

According to the US, it is the world's largest economy, and its market is a battleground for global enterprises. Meanwhile, China is not only the second largest economy in the world, but also has the popular e-commerce throughout the whole country and this is a critical issue. In addition, India has a population of 1.6 billion, which is higher than that of China. It is the next booming demographic country and a region where the software industry has flourished for more than a decade. Meanwhile, the Internet population of China, India, and the US are the top three countries in the world (Huang, 2017), and their religion, culture and other aspects are completely different from other parts of the world. Therefore, how to understand the types of relationship networks (relationship theory) valued by the US, China, and India in the three different cultural societies. how to use the online community to establish an appropriate relationship network with consumers, successfully establish various product brands, and sell them through e-commerce platforms to these three different cultural societies will be an critical issue.

Simply stated, the data of this study was primarily collected via an Internet survey. An announcement was posted on the Internet discussion forum of three different cultural societies (China, India and the US) to recruit participants who are members of VC (e.g., Fan pages of product providers in Facebook, LINE Official Accounts, public subscription channels on WeChat, brand-related online discussion forums). We released the invitation with limited distribution on the Internet, and the announcement stated the purpose of this study and specified that only VC members would be qualified to participate in the survey. To ensure confidentiality, all the participants were informed that their responses would remain anonymous and would be used for academic purposes only. The one-year survey was conduct from 2018 to 2019.

Figure 1. Research Model



To test the proposed research model, we adopted the survey method for collecting 421 valid samples from China, 95 valid samples from India, and 214 valid samples from the US. Due to some invalid samples that have been deleted by the Internet survey systems, thus, this study has only collected 95 valid samples from India. Although VC in a broader sense (such as Amazon, Facebook, WeChat, etc.), have different proposes, however, enterprises will use these VCs to promote their product brands online. Therefore, this study treats these profit-oriented communities uniformly in the data collection process. Each sample has a two-dollar reward after they have completed the questionnaire. Hence, a total of 730 data were included in the following analysis. Among those respondents, there were more male (China: 50.1%; India: 70.5%; US: 51.4%), than female (China: 49.9%; India: 29.5%; US: 48.6%). More than 80% possessed a college or higher degree, and most respondents were aged 25~35. Table 1 shows the detailed demographic information. All of these samples have more experience of VC, and Table 2 shows the detailed experience information.

### 3.2 Constructs

With regard to the difference of relationship theory, this study used the SCT, and GT. The SCT is defined as the investment of resources in social relations with expected returns. We developed measurement items by adopting measures that had been validated in prior studies, and modified the items to fit our context. The questionnaire consisted of 23 items to measure four constructs in the research model (see Appendix 2). This includes three dimensions: trust, identification, and the norm of reciprocity. A total of six questions obtained from Constant et al., (1996), Kankanhalli et al., (2005), Wasko & Faraj (2005), Chiu et al., (2006), and Chang & Chuang (2011) were used as a measure. The GT refers to the depth of feeling within an interpersonal relationship and the moral obligation to maintain the relationship in the Chinese context. A total of five questions obtained from Zhuang et al., (2010) were used as a measure.

Three items adapted from Rethans et al., (1986), and Wu et al., (2008), measured the contact and attention from the participants towards the advertisements through the VC media. This study measured attitudes towards VC advertising by four items adapted from Ajzen and Fishbein (1980), MacKenzie and Lutz (1989), and Wu et al., (2008), which assessed the pleasant, valuable, and beneficial feelings of respondents regarding the advertisements on VC. The intention to purchase was measured by using three questions adapted from Ajzen (2002) and Wu et al., (2011), asking how



Table 1. Descriptive statistics of respondents' characteristics

Events	Contents	China		India		USA	
		#	%	#	%	#	%
Gender	(1) Male	211	50.1	67	70.5	110	51.4
	(2) Female	210	49.9	28	29.5	104	48.6
	(3) Others	0	0	0	0	0	0
Age	(1) <=25	44	10.5	15	15.8	31	14.5
	(2) >25 and <=30	138	32.8	46	48.4	69	32.2
	(3) >30and <=35	131	31.1	22	23.2	48	22.4
	(4) >35and <=40	53	12.6	2	2.1	32	15.0
	(5) >40 and <=45	30	7.1	5	5.3	12	5.6
	(6) >45 and <=50	12	2.9	4	4.2	10	4.7
	(7) >50and <=60	11	2.6	0	0	8	3.7
	(8) over 60	2	0.5	1	1.1	4	1.9
	(9) Others	0	0	0	0	0	0
Education	(1) High school	23	5.5	2	2.1	43	20.1
	(2) Junior college graduates	36	8.6	5	5.3	36	16.8
	(3) Bachelor's degree	314	74.6	49	51.6	101	47.2
	(4) Master	42	10.0	39	41.1	31	14.5
	(5) Ph. D	6	1.4	0	0	3	1.4
	(6) Others	0	0	0	0	0	0

willing were the respondents to buy the products in VC advertisements. All of the aforementioned 23 items were measured on a 5-point Likert scale, with anchors ranging from 1 (strongly disagree) to 5 (strongly agree). The purchase behaviour was measured by using two frequency questions that had been developed by this study.

This study developed measurement items by adopting measures that have been validated in prior studies, and modified the items to fit our context in virtual communities. A pre-test of the questionnaire was performed with help from three specialists in the VC sector and two professors in the IS domain to assess the validity of its content. This included the ease of understanding, sequence of items, and contextual relevance. The questionnaire was slightly modified according to the comments from these experts. To ensure the reliability of questions and the feasibility of the survey process, a pilot test was taken involving eight VC members. The wordings of the questions were also slightly changed based on the VC members' comments from the pilot test.

### 3.3 Reliability and Validity

Item reliability, convergent validity, and discriminant validity tests are often used to evaluate the measurement model in partial least squares (PLS). To achieve the required reliability, the CR should be greater than 0.7 and all the factor loadings above 0.5. The result in Appendix 1 Tables 5-7 shows the proper reliability of the measurement items. To achieve the required convergent validity, CR should be greater than 0.7, and AVE should be greater than 0.5 (Fornell & Larcker, 1981). The result in Appendix 1 Tables 8-10 shows the convergent validity of the measurement items. To achieve the adequate discriminant validity, the correlation between the pairs of constructs should be less than

Table 2. The experience of VC (n = 730)

Events	Contents	China		India		USA	
		#	%	#	%	#	%
Years participating in online brand communities	(1) <=1	56	13.3	16	16.8	42	19.6
	(2) >1 and <=2	132	31.4	34	35.8	55	25.7
	(3) >2 and <=3	124	29.5	28	29.5	46	21.5
	(4) >3 and <=4	61	14.5	6	6.3	16	7.5
	(5) Over 4	48	11.4	11	11.6	55	25.7
Times participate in online brand communities per week	(1) <=5	93	22.1	42	44.2	97	45.3
	(2) >5 and <=10	174	41.3	29	30.5	69	32.2
	(3) >10 and <=15	90	21.4	10	10.5	30	14.0
	(4) >15 and <=20	25	5.9	8	8.4	8	3.7
	(5) Over 20	39	9.3	6	6.3	10	4.7
Hours spend in online brand communities per week	(1) <=5	137	32.5	41	43.2	131	61.2
	(2) >5 and <=10	150	35.6	36	37.9	56	26.2
	(3) >10 and <=15	74	17.6	14	14.7	18	8.4
	(4) >15 and <=20	35	8.3	1	1.1	6	2.8
	(5) Over 20	25	5.9	3	3.2	3	1.4
Times see the advertisement in online brand communities per week	(1) <=5	92	21.9	15	15.8	75	35.0
	(2) >5 and <=10	163	38.7	41	43.2	62	29.0
	(3) >10 and <=15	89	21.1	26	27.4	42	19.6
	(4) >15 and <=20	45	10.7	9	9.5	15	7.0
	(5) Over 20	32	7.6	4	4.2	20	9.3

0.90, and the square root of AVE should be greater than the inter-construct correlation coefficients (Fornell & Bookstein, 1982).

#### 4. DATA ANALYSIS AND RESULTS

Hypothesis testing was conducted through the PLS regression analyses using the SmartPLS 3 with bootstrapping as a resampling technique (5000 random samples) and was used to estimate the structural model and the significance of the paths (t-value) (Chin et al., 2003). PLS recognizes two components of model building, i.e., the measurement model and the structural model, and employs a component-based approach for estimation purposes (Lohmoller, 1988). We used the PLS that was also based on the following four reasonable explanations: (1) it places minimal restrictions on the measurement scales, sample size, and residual distributions (Chin et al., 2003); (2) chosen to accommodate the large number of constructs (Pavlou & Fygenson, 2006); (3) two of the three areas' samples (India and the US) were less than 300, and did not satisfy the criteria of the analyzed data by LISREL; (4) the goal of this study tried to explore the data gap between the three different cultural areas, and this matched Hair et al. (2016), which asserted that an exploratory study used the PLS-SEM appropriately. In addition, the PLS, a second-generation multivariate technique, was used for estimating the parameters of a structural model.

Table 3. The results of direct effect and indirect effect in the different country

Area	China				India				USA			
	Direct Effect	t Value	Indirect Effect	t Value	Direct Effect	t Value	Indirect Effect	t Value	Direct Effect	t Value	Indirect Effect	t Value
H <sub>1</sub> : Advertising -> Attitude	0.348***	7.701***	none	none	0.427**	3.230***	none	none	0.393***	5.632***	none	none
H <sub>2</sub> : Attitude -> Intention	0.571***	12.377***	none	none	0.554***	5.358***	none	none	0.467***	6.669***	none	none
H <sub>3</sub> : Intention -> Purchase Behavior	0.380***	8.355***	none	none	0.299**	2.872***	none	none	0.346***	5.801***	none	none
H <sub>4-1-1</sub> : Trust -> Attitude	0.256***	5.422***	none	none	0.387***	3.436***	none	none	0.199**	2.779	none	none
H <sub>4-2-1</sub> : Trust -> Intention	0.037	0.790	0.146***	4.935***	0.129	1.057	0.215***	3.419***	-0.161*	1.975*	0.093*	2.377*
H <sub>4-1-2</sub> : Identification -> Attitude	0.202**	4.013***	none	none	0.215	1.559	none	none	0.212**	2.765**	none	none
H <sub>4-2-2</sub> : Identification -> Intention	0.046	0.825	0.115***	3.712***	0.191*	1.967*	0.119	1.428	-0.017	0.218	0.099**	2.628**
H <sub>4-1-3</sub> : Norm of Reciprocity -> Attitude	0.187***	3.902***	none	none	-0.212	1.549	none	none	-0.045	0.527	none	none
H <sub>4-2-3</sub> : Norm of Reciprocity -> Intention	0.055	1.004	0.107***	3.708***	0.055	0.528	-0.117	1.446	0.273***	3.399***	-0.021	0.520
H <sub>5-1</sub> : Guanxi -> Attitude	-0.108*	2.222*	none	none	0.058	0.445	none	none	-0.116	1.059	none	none
H <sub>5-2</sub> : Guanxi -> Intention	0.147***	3.451***	-0.062*	2.218*	-0.001	0.007	0.032	0.429	0.127	1.483	-0.054	0.984

\*p<0.1; \*\*p<0.05; \*\*\*p<0.01; \*\*\*\*p<0.001

The results indicated that some hypotheses were supported as demonstrated in Table 3. The research model constructed on this subject represents this study's contribution to the academic arena. The detail results of direct effect and indirect effect in the different areas are as shown in Table 3.

## 5. DISCUSSION

### 5.1 Relationship Between VC Advertising Contact and Attention and Attitude Towards VC Advertising

H<sub>1</sub> considered that VC advertising contact and attention has had a significantly positive effect on the VC members' attitude towards VC advertising in three different cultural areas (China, India, and the US). Therefore, H<sub>1</sub> is supported.

Due to the VC advertising contact and attention was a critical factor to influence the three areas of the VC members' attitude towards VC advertising, and has no cultural difference. The finding is consistent with the study of Bruner & Kumar (2000), and Wu et al. (2008).

### 5.2 Relationship Between Attitude Towards VC Advertising and Intention To Purchase

H<sub>2</sub> considered that the attitude towards VC advertising has had a significantly positive effect on the VC members' intention to purchase in each nation (China, India, and the US), and has no cultural difference. The variances explanatory power (R<sup>2</sup>) of intention to purchase has achieved at least 33.0% (China: 51.2%; India: 69.3%; the US: 33.0%). Therefore, H<sub>2</sub> is supported in this study. The finding is consistent with the theory of reasoned action (TRA) prediction, that individuals' attitudes to a specific behavior can predict their intention of that behavior (Fishbein & Ajzen, 1975). It is also consistent with other previous studies (Castañeda et al., 2007; Chen & Tan, 2004; Crespo & Bosque, 2010; Hernández et al., 2010; Khalifa & Shen, 2008), and the relationship between attitude and intention of online buying has been proven.

### 5.3 Relationship Between Intention To Purchase and Purchase Behavior

H<sub>3</sub> demonstrated that the intention to purchase has had a significantly positive effect on the VC members' purchase behavior in each nation (China, India, and the US), and has no cultural differences. The variances explanatory power (R<sup>2</sup>) of intention to purchase had achieved at least 9.0% (China: 14.4%; India: 9.0%; the US: 12.0%). Therefore, H<sub>3</sub> is supported, and the finding of this study has proven the assertion of Fishbein and Ajzen (1975), as they believed that the VC members' intention, indeed, can predict their specific behavior.

However, the R<sup>2</sup> of purchase behavior only had 9.0% to 14.4% explanation by intention to purchase, and it could be that other variables can improve the purchase behavior. Hence, this needs further study to explore what variances are important for purchase behavior in these three areas.

### 5.4 Relationship Between Relation Theories and Attitude towards Online Social Network (VC) Advertising

VC advertising contact and attention, and different relation theories have a distinct effect on the attitude towards VC advertising in each nation (China, India, and the US). The variances explanatory power (R<sup>2</sup>) of attitude towards VC advertising had achieved at least 30.6% (China: 52.1%; India: 68.0%; the US: 30.6%). Therefore, H<sub>4</sub>, and H<sub>5</sub> are partially supported, and we will be discussing this in the following sections:

#### 5.4.1 SCT to Attitude towards VC Advertising and Purchase Intention

##### 5.4.1.1 Trust to Attitude towards VC Advertising (H<sub>4-1,1'</sub>, H<sub>4-3,1'</sub>) and Purchase Intention (H<sub>4-2,1'</sub>, H<sub>4-4,1'</sub>)

On the one hand, trust has had a significantly positive effect on attitude towards VC advertising in China, India, and the US. In light of the result, H<sub>4-1-1</sub> is supported in this study, and has no cultural differences. Thus, H<sub>4-3-1</sub> is not supported. On the other hand, trust had a significantly negative effect on the purchase intention in the US, but not China, and India. This could be due to the VC members' perception being different in Western and Eastern cultures. Therefore, H<sub>4-2-1</sub> and H<sub>4-4-1</sub> are partially supported in this study.

Moreover, trust also had an indirect effect on the purchase intention in the three different cultural areas. Thus, attitude towards VC advertising does play a critical indirect role between the trust and purchase intention in these three areas, and has no cultural differences.

1. China: the participant VC prefers to send messages and connect to people with their family, relatives, friends, classmates and business partners, then extend the messages to other members of VC. At the same time, they prefer to use VC about 3C, for their daily necessities or business. Thus, the VC members' attitude towards VC advertising depends on their trust of the other members. In addition, as well as India, the VC members' trust will be through their attitude towards VC advertising to influence their purchase intention. Therefore, how to increase the VC members' trust and attitude towards VC advertising in China will be a critical issue to spread brands through VC.
2. India: people prefer to study information technical knowledge, and they use VC to connect with members to discuss IT knowledge. Meanwhile, they also prefer the entertainment VC, thus, trust is a useful variable to impact on their attitude towards VC advertising. Moreover, the VC members' purchase intention is also influence by their attitude. Therefore, how to enhance their trust and attitude towards VC advertising is indeed a critical element to spread brands through VC.
3. The US: the participant VC sent messages to other members of VC, then, sent messages to members who knew each other. Meanwhile, they preferred using the entertainment and technical VC. Although trust was critical to their attitude towards VC advertising, but if trust has a negative

significant effect on their purchase intention directly. Then, the trust relationship, indeed, will decrease the VC members' purchase intention indirectly.

#### 5.4.1.2 Identification to Attitude Towards VC Advertising ( $H_{4-1-2}$ , $H_{4-3-2}$ ) and Purchase Intention ( $H_{4-2-2}$ , $H_{4-4-2}$ )

On the one hand, identification has had a significantly positive effect on the attitude towards VC advertising in China and the US, but not India. Therefore,  $H_{4-1-2}$  and  $H_{4-3-2}$  are partially supported. On the other hand, identification has had a significantly positive effect on purchase intention directly in India, but not in China and the US. Therefore,  $H_{4-2-2}$  and  $H_{4-4-2}$  are partially supported in this study.

Meanwhile, identification had an indirect effect on the purchase intention in China and the US, but not India. Thus, attitude towards VC advertising does play a critical indirect role between the identification and purchase intention in China, and the US. In light of the result, the VC members have the same perception of the identification in China and the US.

1. China: Chinese society emphasizes identification, their attitude towards VC advertising has been positive, and significantly influenced by the identification, but their purchase intention has not been significantly influenced by the identification directly. This could be due to realism, especially in VC, as they prefer to use VC about 3C, for their daily necessities or business. In spite of the fact that the identification also can further increase their attitude towards VC advertising to significantly raise their attitude and purchase intention.
2. India: this society does not emphasize identification, and it is not a critical factor to affect their attitude towards VC advertising. In contrast, identification is indeed a critical factor effecting purchase intention. It could be due to the fact of happiness and optimism, thus, the identification is important to them in VC.
3. The US: if this society emphasizes identification, then the identification of VC will be a positively significant impact on the US VC members' attitude towards VC advertising directly, and purchase intention indirectly.

#### 5.4.1.3 Norm of Reciprocity To Attitude Towards VC Advertising ( $H_{4-1-3}$ , $H_{4-3-3}$ ) and Purchase Intention ( $H_{4-2-3}$ , $H_{4-4-3}$ )

On the one hand, the norm of reciprocity has had a significantly negative effect on attitude towards VC advertising in China, but not in India and the US. In light of this,  $H_{4-1-3}$  and  $H_{4-3-3}$  are partially supported in this study. On the other hand, the norm of reciprocity has had a significantly positive effect on purchase intention directly in the US, but not China and India. Therefore,  $H_{4-2-3}$  and  $H_{4-4-3}$  are partially supported in this study.

Meanwhile, the norm of reciprocity has had an indirect effect on the purchase intention in China, but not India, or the US. Thus, attitude towards VC advertising does play a critical indirect role between the norm of reciprocity and the purchase intention in China.

1. China: The Chinese VC members' attitude and purchase intention will be influenced by the norm of reciprocity, as this could be due to this being a critical factor for them in VC.
2. India: This could be due to the people being a talented race, the VC members' reciprocity is useless in their attitude towards VC advertising in VC. Meanwhile, purchase intention will not be impacted by the norm of reciprocity for the Indian VC members.
3. The US: The VC members' attitude will not influence the norm of reciprocity. However, the norm of reciprocity will impact on their purchase intention. This means that the norm of reciprocity to VC members has played a critical role and the intensity of it can induce their purchase intention directly.

In sum, to build the relationship dimension of the SCT with the VC members in Chinese and American societies (trust, identification, and the norm of reciprocity) is much more useful than the Indian (trust) society to spread brands through VC.

#### 5.4.2 *Guanxi* to Attitude towards VC Advertising ( $H_{5-1}$ , $H_{5-3}$ ) and Purchase Intention ( $H_{5-2}$ , $H_{5-4}$ )

On the one hand, *guanxi* has had a significantly negative effect on attitude towards VC advertising in China, but not India and the US. Therefore,  $H_{5-1}$  and  $H_{5-3}$  is not supported in this study. On the other hand, *guanxi* has had a significantly positive effect on purchase intention directly in China, but not India and the US. Therefore,  $H_{5-2}$  and  $H_{5-4}$  are partially supported in this study. Moreover, attitude towards VC advertising played a critical indirect role between *guanxi* and the purchase intention in China, but not in India and the US.

1. China: due to *guanxi* being very important, thus, this factor has had a significantly positive influence on their purchase intention directly, but *guanxi* has had a significantly negative effect on their attitude towards VC advertising. Meanwhile, attitude towards VC advertising plays a critical indirect role between *guanxi* and purchase intention. This could be due to most of the VC members having a mixed tie relationship, and handle the *renqing* rule to treat VC members. Thus, if a VC member has good *guanxi* with other members, and always recommends products to them through VC advertising. Then the good *guanxi* and these recommendations not only will increase the VC members' pressure, but also go against an old adage of China: 'simply meeting favors help' (It's harder to be cold and detached when you look someone in the eye). In light of this, although good *guanxi* will be able to increase VC members' purchase intention, but if their *guanxi* only depends on the VC platform, then their *guanxi* cannot achieve an intensity level. For this reason, a negative attitude will be induced by *guanxi* and will decrease their purchase intention at the same time.
2. India and the US: *guanxi* of VC will not influence the VC members' attitude towards VC advertising and purchase intention in these two nations.

In sum, to build good *guanxi* with VC members in China's society will have a negative effect on attitude, but have a positive effect on the intention to spread brands through VC directly, and *guanxi* will not affect India and the US. Final, Comparison the results of the hypotheses as shown in Table 4.

## 6. CONTRIBUTION

Most past studies that explored online advertisements in the VC context were based on theories, such as social exchange and social cognitive theories. This study combined two theories, Social Capital, and *Guanxi* based on Nahapiet and Ghoshal (1998), Tsai and Ghoshal (1998), Hwang (2015). Moreover, this study also compares the VC members in China, India, and the US, as being three different cultural areas.

### 6.1 For Academic

Firstly, the result can provide researchers with information that the relationship between the VC members' attitude towards VC advertising and purchase ( $H_1$ ), purchase intention ( $H_2$ ), and behavior ( $H_3$ ), have been proven in the global VC members. Based on the result, TRA is suitable for both actual and virtual backgrounds. However, the relationship between VC advertising contact and attention, and the VC members' attitude towards VC advertising, will continue to be influenced by national culture. Therefore, if future studies decide to explore this topic, then they should take into consideration the issue of national culture.

Table 4. Comparison the results of the hypotheses

Hypotheses	China	India	USA
<b>H<sub>1</sub>: Advertising -&gt; Attitude</b>	Due to the fact that the VC advertising contact and attention was a critical factor to influence the three areas of the VC members' attitude towards VC advertising		
<b>H<sub>2</sub>: Attitude -&gt; Intention</b>	Individuals' attitudes to a specific behavior can predict their intention in three areas, and has no cultural difference		
<b>H<sub>3</sub>: Intention -&gt; Purchase Behavior</b>	The VC members' intention, indeed, can predict their specific behaviour in three areas, also has no cultural difference too		
<b>H<sub>4-1-1</sub>: Trust -&gt; Attitude</b>	Trust indeed was a significant factor to influence the three areas of the VC members' attitude towards VC advertising, and no cultural difference		
<b>H<sub>4-2-1</sub>: Trust -&gt; Intention</b>			VC members' trust will decrease the influence of the USA VC members' purchase intention directly from the USA participant VC for sending messages to other members of VC, then, sent messages to members who knew each other. Meanwhile, they preferred using the entertainment and technical VC. Although trust was critical to their attitude towards VC advertising, but if trust has a negatively significant effect on their purchase intention directly, then the trust relationship, indeed, decreases the VC members' purchase intention indirectly.
	Attitude towards VC advertising does play a critical indirect role between the trust and purchase intention in these areas		
<b>H<sub>4-1-2</sub>: Identification -&gt; Attitude</b>	Chinese society emphasizes identification, their attitude towards VC advertising has been positive, and significantly influenced by the identification, but their purchase intention has not been significantly influenced by the identification directly	Indian society does not emphasize identification, therefore, it is not a critical factor or a significant effect on their attitude towards VC advertising	US society emphasizes identification, then the identification of VC will be positive, and significantly impact on the US VC members' attitude towards VC advertising directly, and purchase intention indirectly
<b>H<sub>4-2-2</sub>: Identification -&gt; Intention</b>	Attitude towards VC advertising does play a critical indirect role between the identification and purchase intention	Identification is indeed a critical factor effecting purchase intention, due to the fact of happiness and optimism. Thus, the identification is important to them in VC	Attitude towards VC advertising does play a critical indirect role between the identification and purchase intention
<b>H<sub>4-1-3</sub>: Norm of Reciprocity -&gt; Attitude</b>	The Chinese VC members' attitude and purchase intention will impact on the norm of reciprocity, as this could be due to this is a critical factor for them in VC	Indian being a talented race, not only was the VC members' reciprocity useless with each other in VC. Thus, it was useless to their attitude towards VC advertising. Meanwhile, purchase intention will not be impacted by the norm of reciprocity for the Indian VC members.	
<b>H<sub>4-2-3</sub>: Norm of Reciprocity -&gt; Intention</b>			The norm of reciprocity to the US VC members has played a critical role and the intensity of it can induce their purchase intention directly
<b>H<sub>5-1</sub>: Guanxi -&gt; Attitude</b>	Although good <i>guanxi</i> will be able to increase VC members' purchase intention directly, but if their <i>guanxi</i> only depends on the VC platform, then their <i>guanxi</i> cannot achieve an intensity level. Thus, a negative attitude will be induce by <i>guanxi</i> and decrease their purchase intention at the same time.		
<b>H<sub>5-2</sub>: Guanxi -&gt; Intention</b>			

Secondly, for India VC members, trust relationship of SCT has had a significantly positive effect on their attitude towards VC advertising ( $H_{4-1-1}$ ), the trust relationship of SCT has had a significantly positive indirect effect on their purchase intention ( $H_{4-2-1}$ ), and the identification relationship of SCT has had a significantly positive direct effect on their purchase intention ( $H_{4-2-2}$ ). Therefore, the trust relationships for VC members' are more important than identification and the norm of reciprocity relationships of SCT.

Thirdly, for the US VC members, trust ( $H_{4-1-1}$ ,  $H_{4-2-1}$ ) and identification ( $H_{4-1-2}$ ,  $H_{4-2-2}$ ) of the two types of relationships are of importance in VC for them. In addition, their attitude towards VC advertising plays a critical indirect role between trust, identification, and purchase intention. The norm of reciprocity of SCT ( $H_{4-2-3}$ ) has had a significant effect on the purchase intention directly. Hence, these three types of SCT relationships are very critical to the US VC members, accordingly, to be able to impact on their purchase intention directly or indirectly.

Fourthly, for China VC members, their attitude towards VC advertising plays a critical direct and indirect role between trust ( $H_{4-1-1}$ ), identification ( $H_{4-1-2}$ ), the norm of reciprocity ( $H_{4-1-3}$ ), and purchase intention ( $H_{4-2-1}$ ,  $H_{4-2-2}$ ,  $H_{4-2-3}$ ). The results showed that both the trust, identification, and the norm of reciprocity of SCT are very important in VC for them. However, *guanxi* has had a significantly negative effect on their attitude towards VC advertising. The result showed that *guanxi* is useless in VC. Alternatively, *guanxi* ( $H_{5-2}$ ), has had a significant effect on purchase intention directly. In contrast, attitude towards VC advertising plays a critical indirect role between *guanxi* and purchase intention, as this is a very interesting finding, and why *guanxi* is so important but has had a negative effect on their purchase intention indirectly, still needs further exploration through a qualitative research method.

Finally, this study provides another point of view from which academia can examine and better understand the mechanism of relationship theories that drive the spending behavior of VC members in different cultural areas. Moreover, this study also provides VC advertising, of which indeed, is a good tool to promote product brands on the VC platform, and have different results in different cultural areas.

## 6.2 For Practice

Firstly, for China, India and the US VC members, VC management should design attractive and interesting VC advertising to increase the frequency of their attention in these three areas. Accordingly, as it will be a useful policy to increase their positive attitude towards VC advertising, purchase intention, and even behavior. In addition, this study found that China VC members prefer using the VC about 3C for daily necessities or business. The US VC members prefer using the entertainment and technical VC. Therefore, VC management should also emphasize how to use VC advertising to promote and highlight their product brands to different cultural VC members, as in their preferred VCs. Meanwhile, VC management should also emphasize the VC advertising, as VC members in India preferred VC (such as: information technical knowledge VC). Accordingly, as this could still be a possible approach to spread their brands to them.

Secondly, for the US VC members, due to the norm of reciprocity relationship of SCT, of which is critical to influence their purchase intention directly, the trust and identification relationships of SCT are critical to influence their purchase intention indirectly. For this reason, VC management can raise the US VC members' three types of relationships of SCT, and this is a necessary mission to improve their purchase intention. Hence, this will be an appropriate way to spread brands through VC in the US.

Thirdly, for India VC members, due to their belief of the relationships of trust, identification of these two types of relationships are significant. Consequently, VC management should cultivate these relationships in VC to spread their brands. In contrast, the norm of reciprocity relationship is useless in their attitude towards VC advertising. Therefore, VC management must pay attention to avoid the use of the norm of reciprocity relationship to spread brands through VC to India members.



Fourthly, for China VC members, both of trust, identification, and the norm of reciprocity of SCT will influence their attitude directly, and/or purchase intention indirectly. Therefore, VC management should also foster the three types of relationships of SCT in China VC to spread their brands. In addition, although *guanxi* can improve VC members' purchase intention directly, nevertheless, this is a critical relationship, and is able to decrease their attitude towards VC advertising, and even reduce their purchase intention indirectly. In point of fact, how to use *guanxi* in an appropriate degree and not damage the VC members' attitude and purchase intention will be a critical issue for VC management. Meanwhile, VC management should try to gain a deeper understanding of how Chinese people manipulate *guanxi* both in actual and virtual backgrounds, as this is a necessary learning subject for them.

Fifthly, VC management can gain a clear direction from this study, in which, management should build the relationship dimension of the SCT (trust, identification, and the norm of reciprocity) with the VC members in China and the US societies, and the SCT is much more useful than India (trust, and identification) to spread brands through VC. Moreover, building good *guanxi* with the VC members in China's society will have a negative effect on attitude, but has a positive effect on the intention directly to spread brands through VC.

In sum, the results of the empirical analysis of this study provide several important insights for VC management. Promoting VC advertising contact and attention is useful, especially to China and the US VC members. Therefore, VC advertising is an effective marketing instrument that can affect people's attitudes towards VC advertising, due to these advertisements being able to easily attract the attention of customers, and have a positive effect on their desirability. For this reason, this study recommends that VC management must improve VC advertising contact and attention, and therefore should deliver interesting and valuable advertisements. Moreover, VC management should focus on fostering different types of relationships of SCT, or *guanxi*, in VC to the more suitable cultural areas of the VC members, and use these relationships to promote their product brands. In light of this, not only will the VC members' attitude towards VC advertising improve, but also their purchase intention will be increased, thereby achieving the spread of brands as their global market goal.

Nevertheless, how to foster good *guanxi* with the VC members in China is quite a significant issue for VC management, but how to use good *guanxi* to increase the VC members pressure, and not go against the old adage of China: 'simply meeting favors help' also is a critical issue to VC management. Due to China being the biggest VC market in the world, thus, the policy to cultivate good *guanxi* with their VC members will be acceptable. Meanwhile, to avoid any negative impact on their purchase intention is also prime and necessary to spread brands through VC in China.

## 7. CONCLUSION

The findings show that VC advertising contact and attention influence the VC members' attitude towards VC advertising in China and the US. Meanwhile, as for SCT (trust, identification, norm of reciprocity), and *guanxi*, these relationships, indeed, have a different influence on the VC members' attitude towards VC advertising and purchase intention in different cultural areas. This study has demonstrated that culture differentiation should be considered when researchers investigate the impact of VC advertising contact and attention, attitude towards VC advertising, and purchase intention in VC context.

However, there are three limitations of this study: (1) The India samples of this study are less than 100, and it could influence the external validity. (2) The samples of this study did not collect data from Europe and the Middle East, therefore, the researchers can consider collecting data from many other countries in future studies, in order to compare the global cultural gap within other societies, with the exception of the three countries already used in this research. (3) We did not resolve the IS problem of VC, thus, building an appropriate VC structure to match different cultural areas, and provide suitable VC advertising in the VC platform for different cultural areas. Moreover, the future

research directions provide researchers whom can use the qualitative research method to explore why the different cultural areas emphasize different types of relationships in VC, what type of VC structure is suitable, thereby gaining a better understanding on the continuing effects of the online advertisements in VCs.

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## **ENDNOTE**

- <sup>1</sup> *Guanxi*: literally means *relationships*, and stands for any type of relationship. In the Chinese business world, however, it is also understood as the network of relationships among various parties that cooperate together and support one another. A Chinese businessman's mentality is very much one of 'You scratch my back, I'll scratch yours.' In essence, this boils down to exchanging favors, which are expected to be done regularly and voluntarily. Therefore, it is an important concept to understand if one is to function effectively in Chinese society.



## APPENDIX 1

Table 5. The results of item reliability and convergent validity (China)

Latent Variable	Indicators	Convergent Validity		Internal Consistency Reliability	
		Loadings	AVE	Composite Reliability	Cronbach's Alpha
		> 0.700	> 0.500	0.600~0.900	0.600~0.900
Trust	Trust_1	0.834	0.711	0.831	0.594
	Trust_2	0.852			
Identification	ID_1	0.860	0.753	0.859	0.673
	ID_2	0.876			
Norm of Reciprocity	NR_1	0.798	0.679	0.808	0.528
	NR_2	0.849			
Chinese Guanxi	CGT_1	0.676	0.517	0.842	0.784
	CGT_2	0.775			
	CGT_3	0.721			
	CGT_4	0.694			
	CGT_5	0.725			
Advertising	SNA_1	0.692	0.574	0.801	0.637
	SNA_2	0.802			
	SNA_3	0.775			
Attitude	SNA_A1	0.730	0.536	0.822	0.711
	SNA_A2	0.757			
	SNA_A3	0.705			
	SNA_A4	0.735			
Intention to Purchase	SNA_I1	0.789	0.556	0.790	0.601
	SNA_I2	0.742			
	SNA_I3	0.704			
Purchase Behavior	PB_1	0.926	0.849	0.918	0.822
	PB_2	0.917			

Table 6. The results of item reliability and convergent validity (India)

Latent Variable	Indicators	Convergent Validity		Internal Consistency Reliability	
		Loadings	AVE	Composite Reliability	Cronbach's Alpha
		> 0.700	> 0.500	0.600~0.900	0.600~0.900
Trust	Trust_1	0.846	0.726	0.841	0.622
	Trust_2	0.858			
Identification	ID_1	0.914	0.800	0.889	0.752
	ID_2	0.875			
Norm of Reciprocity	NR_1	0.871	0.744	0.854	0.657
	NR_2	0.855			
Chinese Guanxi	CGT_1	0.677	0.553	0.860	0.837
	CGT_2	0.684			
	CGT_3	0.690			
	CGT_4	0.801			
	CGT_5	0.848			
Advertising	SNA_1	0.817	0.712	0.881	0.798
	SNA_2	0.821			
	SNA_3	0.892			
Attitude	SNA_A1	0.869	0.706	0.906	0.861
	SNA_A2	0.848			
	SNA_A3	0.815			
	SNA_A4	0.829			
Intention to Purchase	SNA_I1	0.815	0.723	0.887	0.808
	SNA_I2	0.879			
	SNA_I3	0.856			
Purchase Behavior	PB_1	0.912	0.862	0.926	0.842
	PB_2	0.945			

Table 7. The results of item reliability and convergent validity (USA)

Latent Variable	Indicators	Convergent Validity		Internal Consistency Reliability	
		Loadings	AVE	Composite Reliability	Cronbach's Alpha
		> 0.700	> 0.500	0.600~0.900	0.600~0.900
Trust	Trust_1	0.826	0.731	0.844	0.634
	Trust_2	0.883			
Identification	ID_1	0.930	0.834	0.909	0.803
	ID_2	0.896			
Norm of Reciprocity	NR_1	0.911	0.829	0.906	0.793
	NR_2	0.909			
Chinese Guanxi	CGT_1	0.756	0.635	0.897	0.868
	CGT_2	0.837			
	CGT_3	0.797			
	CGT_4	0.833			
	CGT_5	0.757			
Advertising	SNA_1	0.735	0.645	0.844	0.738
	SNA_2	0.769			
	SNA_3	0.896			
Attitude	SNA_A1	0.767	0.644	0.878	0.815
	SNA_A2	0.833			
	SNA_A3	0.819			
	SNA_A4	0.789			
Intention to Purchase	SNA_I1	0.889	0.681	0.863	0.762
	SNA_I2	0.905			
	SNA_I3	0.657			
Purchase Behavior	PB_1	0.954	0.923	0.960	0.918
	PB_2	0.968			

Table 8. The results of discriminant validity (China)

Construct	Mean	Std. Dev.	M3	M4	R <sup>2</sup>	AD	Attitude	PB	CGX	NR	Intention	ID	Trust
AD	3.671	0.558	-0.343	-0.111	0.000	0.758							
Attitude	3.793	0.535	-0.541	0.362	0.521	0.570	0.732						
PB	3.166	0.692	-0.677	1.102	0.144	0.386	0.281	0.921					
CGX	3.999	0.594	-0.432	0.238	0.000	0.477	0.298	0.295	0.719				
NR	3.864	0.519	-0.389	-0.121	0.000	0.421	0.519	0.218	0.460	0.824			
Intention	3.685	0.547	-0.369	-0.033	0.512	0.529	0.690	0.379	0.369	0.462	0.746		
ID	3.713	0.763	-0.207	-0.258	0.000	0.431	0.554	0.185	0.286	0.498	0.453	0.868	
Trust	3.705	0.638	-0.370	0.227	0.000	0.425	0.572	0.222	0.378	0.531	0.475	0.553	0.843

CGX: Chinese *Guanxi*; AD: Advertising; PB: Purchase Behavior; ID: Identification;  
 NR: Norm of Reciprocity; M3: Skewness; M4: Kurtosis  
 \*The diagonal line of the correlation matrix represents the square root of AVE.

Table 9. The results of discriminant validity (India)

Construct	Mean	Std. Dev.	M3	M4	R <sup>2</sup>	AD	Attitude	PB	CGX	NR	Intention	ID	Trust
AD	3.800	0.797	-1.238	3.341	0.000	0.844							
Attitude	3.902	0.845	-1.415	2.828	0.680	0.756	0.840						
PB	3.179	0.789	0.151	-0.176	0.090	0.372	0.238	0.928					
CGX	3.942	0.812	-1.303	2.766	0.000	0.464	0.419	0.409	0.744				
NR	3.874	0.812	-1.348	3.290	0.000	0.633	0.466	0.221	0.551	0.863			
Intention	3.437	0.848	-0.800	0.885	0.693	0.804	0.802	0.298	0.412	0.512	0.850		
ID	3.768	0.869	-0.723	0.979	0.000	0.681	0.667	0.242	0.504	0.613	0.680	0.894	
Trust	3.774	0.788	-1.013	2.319	0.000	0.747	0.743	0.217	0.438	0.627	0.705	0.674	0.852

CGX: Chinese *Guanxi*; AD: Advertising; PB: Purchase Behavior; ID: Identification;  
 NR: Norm of Reciprocity; M3: Skewness; M4: Kurtosis  
 \*The diagonal line of the correlation matrix represents the square root of AVE.

Table 10. The results of discriminant validity (USA)

Construct	Mean	Std. Dev.	M3	M4	R <sup>2</sup>	AD	Attitude	PB	CGX	NR	Intention	ID	Trust
AD	3.660	0.804	-0.420	0.054	0.000	0.803							
Attitude	3.917	0.788	-0.728	0.959	0.306	0.436	0.802						
PB	2.633	0.864	0.425	-0.211	0.120	0.365	0.131	0.961					
CGX	4.201	0.666	-0.601	0.158	0.000	0.394	0.104	0.460	0.797				
NR	3.648	0.799	-0.290	-0.218	0.000	0.392	0.210	0.363	0.502	0.910			
Intention	3.416	0.829	-0.290	0.107	0.330	0.444	0.467	0.348	0.276	0.368	0.825		
ID	3.921	0.866	-0.766	0.788	0.000	0.274	0.389	0.095	0.215	0.399	0.210	0.913	
Trust	3.820	0.756	-0.612	0.594	0.000	0.245	0.372	0.068	0.232	0.389	0.139	0.568	0.855

CGX: Chinese *Guanxi*; AD: Advertising; PB: Purchase Behavior; ID: Identification;  
 NR: Norm of Reciprocity; M3: Skewness; M4: Kurtosis  
 \*The diagonal line of the correlation matrix represents the square root of AVE.

## APPENDIX 2. MEASUREMENT ITEMS

### Social Capital Theory (SCT)

#### Trust

Trust\_1: I think most members of the VC are honest.

Trust\_2: I think that members in the VC trust each other.

#### Identification

ID\_1: I think that members in the VC and I should maintain a relationship with each other.

ID\_2: I think that members in the VC and I need identification with each other.

#### Norm of Reciprocity

NR\_1: I believe that members in the VC would help me if I needed it.

NR\_2: I trust that someone in the VC would help me if I were in a similar situation.

#### Mixed ties of *Guanxi* (GT)

CGT\_1: VC members and I frequently meet up for activities such as dinner or social events

CGT\_2: VC members often look after me in doing business

CGT\_3: I will not forget VC members at festival events and always give them valuable gifts

CGT\_4: VC members will not forget me either at festival events and always give me gifts in return

CGT\_5: I think that VC members and I are in the same network

#### Online Social Network (VC) Advertising (SNA) Contact and Attention

SNA\_1: I spend lots of time surfing brand products related information posted in the online brand community per day.

SNA\_2: I often expose to brand products related information posted in the online brand community.

SNA\_3: I always pay attention to brand products related information posted in the online brand community.

#### Attitude towards Online Social Network (VC) Advertising (SNA\_A)

SNA\_A1: The brand products related advertisements posted in the VC are consistent with the actual products

SNA\_A2: I have faith in the brand products related advertisements posted in the VC

SNA\_A3: The brand products related advertisements posted in the VC are valuable to me

SNA\_A4: Brand products related advertisements posted in the VC serves as a good reference

#### Intention to Purchase (SNA\_I)

SNA\_I1: After searching for VC advertisements, I intend to buy that brand products

SNA\_I2: After searching for VC advertisements, I plan to buy that brand products

SNA\_I3: After searching for VC advertisements, I tried to learn more about that brand products

#### Purchase Behavior (PB)

PB\_1: How frequently do you purchase in VC?

PB\_2: How many products do you purchase in VC?

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