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# Online Shopping Behavior in Cross-cultural Context: An Empirical Research in China

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**Abstract:** As a newly evolved emergence from e-business, social commerce has attracted increasingly attention from both researchers and practitioners. Distinguished from the majority of extant research paradigm, the current empirical study extends social commerce research into cross-cultural context and unveils the underlying mechanism through which two dimensions of social media usage (informational and socializing) impact user's intention to purchase on social commerce websites, thereby facilitating online shopping behaviors. In addition, the research demonstrates the role of cultural distance as a boundary condition attenuating the positive effects of social media usage in cross-cultural social commerce application. Research implications and limitations for future venues are also discussed.

Keywords: Social media usage, intention to purchase, online shopping behavior, cross-cultural context

## 1. INTRODUCTION

The prevalence of social media usage has changed domains of our current business world<sup>[1]</sup>. The combination of social media technology and business has generated another dominating form of business model, social commerce, which shifted the traditional product-centered to the customer-centered<sup>[2][3]</sup>. This new business emergence facilitates user-generated advertorial content on e-commerce sites and interconnectivities amongst customers and vendors<sup>[4]</sup>.

Given that social commerce made vast changes to firms' venture capital substantially<sup>[5]</sup>, scholars have conducted numerous studies on drivers facilitating social acceptance and uses<sup>[6]</sup>. Even though social commerce has been identified as an effective practice to impact business models for years<sup>[7]</sup>, perceived negative effects, for instance, dissatisfactory customer service, fraud on consumers and inaccurate information, hinders customers to be influenced by peers for online shopping behaviors<sup>[8][9]</sup>. This indicates social media usage does not necessarily result in online shopping behaviors. In this regard, the underlying mechanism for generating users' online shopping behaviors should be further investigated.

In addition, the inconsistent findings about customer's online shopping behaviors may also result from cultural contributors. As countries vary from inherent values, traditions, customs and cultural practices, people are profoundly impacted by their cultural notions<sup>[10]</sup>. According to the Social Cognitive Theory<sup>[11]</sup>, human behaviors are also influenced by the environmental factors they are exposed to. This indicates that cultural issues may influence online shopping behaviors as a contextual influential mechanism. To date, the majority of extant research has been conducted in mono-cultural background while neglecting of the cross-cultural milieu where potential customers conduct their online shopping behaviors. How social commerce is conducted in much more complicated cross-cultural environment is far less under-investigated.

The current research aims to answer the above important yet not addressed issues by applying the uses and gratification theory (U&G Theory). More specifically, we conduct an empirical research to clarify the mechanism how social media usage triggers user's online shopping behaviors in cross-cultural environment by exploring the mediating role of user's intention to purchase. Further, the research explores to what extent cultural differences impact the effects of social media usage on customer's online shopping intention.

## 2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

### 2.1 Social media usage and intention to purchase on s-commerce websites

Defined as “a group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and allow the creation and exchange of user generated content”<sup>[12]</sup>, social media has become spearhead platforms for interaction mechanism, and information searching tool<sup>[13][14]</sup>. According to Hsu et al. (2015)<sup>[15]</sup>, social media usage has been categorized generally for socializing and informational purposes. U&G Theory depicts that users use social media to gratify their various social and psychological needs including their emotional, entertainment, socializing and material demands<sup>[16-18]</sup>. When exposed to a cross-cultural environment, users tend to be more eagerly to search for relevant information to gratify their cognitive needs to facilitate their living and working conditions because of cultural conflicts, cultural shock and other uncertainties they are confronted with<sup>[1][19]</sup>. Relevant information searched from social media websites helps individuals get more familiar with the local products to see to what extent their individual gratifications could be gratified. It is supposed that the more relevant information social media provides, the more user’s intention to purchase on the s-commerce sites may be triggered. Thus we hypothesize:

H1a: Informational social media usage is positively related to the user’s intention to purchase on the s-commerce sites.

Cross-cultural uncertainties and risks also impose individuals to leverage social media usage frequently for socializing purpose to avoid psychological disorders<sup>[15][20]</sup>. Using social media to interact with communities can help users to maintain or establish new interpersonal relationships<sup>[21]</sup>. And this seems to an important channel for social media users to adjust to the foreign environment for survival and personal development. Evidences suggest that social media usage for socializing purpose contributes to expatriate’s adjustment and personal development in a cross-cultural context<sup>[22][1]</sup>. Likewise, socializing with people from different cultural backgrounds is conducive for users to familiarize with online business information including products’ functionalities and other knowledge related to the products they need to gratify their needs for conveniences of their lives abroad. In this regard, socializing through social media contributes to developing user’s stronger intention to purchase on s-commerce sites. Furthermore, socializing usage of social media provides additional resources for individuals to attain trust in the community through timely communication. In addition, trust has been identified as an effective channel to shape good relationships between firms and customers, thereby increasing user’s intention to purchase on s-commerce websites<sup>[23][24]</sup>. Thus we propose that socializing social media usage is conducive to the development of user’s online purchasing intention.

H1b: Socializing social media usage is positively related to user’s intention to purchase on s-commerce sites.

### 2.2 Intention to purchase on s-commerce websites and online shopping behaviors

In social commerce, the aim of vendors is to convert consumers to be product’s advocates, whereas the aim of customers is to make better reasonable purchasing decisions<sup>[10][12]</sup>. Realization of both or either of the aims should be determined by customer’s intention to purchase on s-commerce websites through interaction, among which the social networking community boosts user’s reliance and trust in established personal relationships. During the process of interaction, potential customers purchasing intention has been internalized as a situation in which they are intrinsically willing to comply with other’s beliefs and behaviors<sup>[25][10]</sup>. The social influence generated in this way impacts the potential customer’s psychological changes and leads to “a feeling of closeness and emotional bonding, involving intense liking, moral support, and the ability to tolerate flaws in the service”<sup>[26]</sup>. In this regard, we propose that intention to purchase on s-commerce websites is based on interaction

and eventually leads to online shopping behaviors.

H2: User's intention to purchase on s-commerce websites positively relates to online shopping behaviors.

### 2.3 The moderating role of cultural distance

Cultural distance, defined as the extent of novelty wherein the culture of the host country is different from the one of international expatriates' home<sup>[27]</sup>, has been identified as one of main stressor resources perceived by expatriates in international experiences<sup>[28]</sup>. Cultural distance comprehensively represents the patterns how culturally-rooted people think, feel and act, and plays an important role in intercultural communications<sup>[29]</sup>. Evidences suggested that cultural distance contributes primarily to the cultural shock, intercultural communication difficulties and leads to numerous living and business failures<sup>[30][31]</sup>.

In prior s-commerce studies, most research focused on comparing range of differences in the online world whilst neglecting of how cultural differences impact consumer's intention to purchase in cross-cultural environment<sup>[32][10]</sup>. Drawing on the Social Cognitive Theory (SCT), human behavior is shaped and controlled by both internal dispositions and environmental factors which function in terms of triadic reciprocal causation and operate as interacting determinants influencing each other bidirectionally<sup>[33][11]</sup>. In this regard, understanding the mechanism of cultural distance, functioning as an environmental factor to impact international expatriate's psychosocial changes in cross-cultural context, is of considerable import. Given that cultural distance has been identified as a noisy channel for individuals to adapt to the foreign environment, master cultural knowledge and have intercultural communications, it is supposed to exert negative impacts on individual's usage of social media either for informational or socializing purpose, thereby influencing their intention to purchase on s-commerce websites. Thus we propose that:

H3: Cultural distance negatively influences the relationship between informational social media usage and intention to purchase on s-commerce websites.

H4: Cultural distance negatively influences the relationship between socializing social media usage and intention to purchase on s-commerce websites.

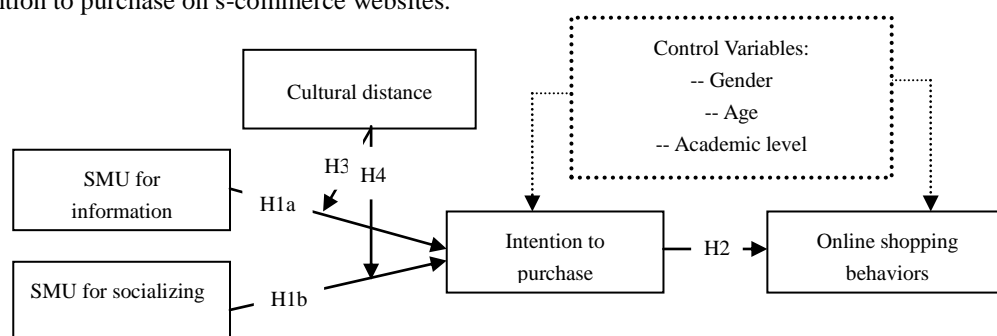


Fig.1. Proposed research model

### 3. HYPOTHESIS TESTING

A questionnaire was surveyed among international students studying at two Chinese public universities. A total of 400 questionnaires were delivered and 342 questionnaires were finally collected back with a response rate of 85.5%. Two unqualified questionnaires were removed and the final list of 340 questionnaires was used for the current research.

Regression analysis was conducted to examine the related hypothesis. Age, sex, academic level and stay length in China were controlled for to avoid potential confounding effects. The final regression results are presented in Table 1.

**Table 1. Results of hierarchical regression analyses**

	Online shopping behavior			Intention to purchase on s-commerce sites		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Sex	0.053	0.032	0.049	0.070	0.051	0.066
Age	-0.055	-0.031	-0.043	0.012	0.033	0.022
Stay length	0.022	0.040	0.036	-0.115	-0.099	-0.103
Academic level	0.010	-0.029	0.000	0.025	-0.010	0.016
Informational SMU		0.301***			0.268***	
Socializing SMU			0.165**			0.141**
R <sup>2</sup>	0.007	0.096	0.034	0.018	0.089	0.038
ΔR <sup>2</sup>		0.089	0.027		0.070	0.020
ΔF		32.744***	9.231**		25.733***	6.821**

Notes: N = 340. SMU, Social Media Usage; CD, Cultural Distance. Standardized regression coefficients are shown. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

In addition, the role of user's intention to purchase on social commerce websites mediating the relationship between two dimensions of social media usage and online shopping behavior was analyzed. The results are presented in Table 2.

**Table 2 Results of hierarchical regression analyses for mediation**

	online shopping behavior				
	Model 1	Model 2	Model 3	Model 4	Model 5
Sex	0.053	0.032	0.013	0.049	0.022
Age	-0.055	-0.031	-0.043	-0.043	-0.052
Stay length	0.022	0.040	0.076	0.036	0.078
Academic level	0.010	-0.029	-0.025	0.000	-0.007
Informational SMU		0.301***	0.202***	0.165**	
Socializing SMU					0.107*
ISS			0.370***		0.408***
R <sup>2</sup>	0.007	0.096	0.220	0.034	0.194
ΔR <sup>2</sup>		0.089	0.124	0.027	0.160
ΔF		32.744***	53.156***	9.231**	66.286***

Notes: N = 340. SMU, social media usage; ISS, intention to purchase on s-commerce sites. Standardized regression coefficients are shown. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

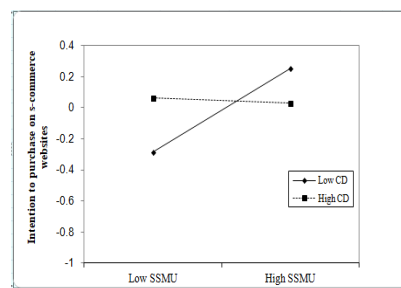
Furthermore, we tested the interaction effects of social media usage and cultural distance on intention to purchase on s-commerce sites (Table 3). The result indicated that cultural distance is negatively moderating the relationship between socializing social media usage and intention to purchase on s-commerce sites ( $\beta = -0.162$ ,  $p < 0.01$ ).

**Table 3 Results of hierarchical regression analyses for interaction**

	Intention to purchase on s-commerce sites				
	Model 1	Model 2	Model 3	Model 4	Model 5
Sex	0.070	0.051	0.052	0.065	0.057
Age	0.012	0.033	0.040	0.021	0.018
Stay length	-0.115	-0.099	-0.106	-0.103	-0.106
Academic level	0.025	-0.010	-0.007	0.015	0.018
Informational SMU		0.268***	0.254***	0.137	
Cultural distance		-0.002	-0.003	0.037	0.026
Socializing SMU					0.127*
ISMU×CD			-0.072		
SSMU×CD					-0.162**
R <sup>2</sup>	0.018	0.089	0.093	0.039	0.065
ΔR <sup>2</sup>		0.070	0.005	0.021	0.026
ΔF		12.828***	1.788	3.641*	9.214**

Notes: N = 340. SMU, Social Media Usage; CD, Cultural Distance. Standardized regression coefficients are shown. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$ .

**Figure 2. Moderating effect of cultural distance on the relationship between socializing social media usage and Intention to purchase on s-commerce sites**



**Table 4 Results of hypothesis testing**

No.	Hypothesis	Results
H1a	Informational social media usage is positively related to the user’s intention to purchase on the s-commerce sites	Supported
H1b	Socializing social media usage is positively related to user’s intention to purchase on s-commerce sites.	Supported
H2	User’s intention to purchase on s-commerce websites positively relates to online shopping behaviors	Supported
H3	Cultural distance negatively influences the relationship between informational social media usage and intention to purchase on s-commerce websites.	Not Supported
H4	Cultural distance negatively influences the relationship between socializing social media usage and intention to purchase on s-commerce websites	Supported

**4. DISCUSSION**

The research confirmed that two dimensions of social media usage contribute to the customer’s online shopping behavior via user’s intention to purchase on s-commerce websites in cross-cultural environment. To be more specific, informational and socializing social media usages are both positively related to customer’s online

shopping behaviors. The research findings are consistent with previous studies explaining that prevalence of social media usage facilitates the interaction and shopping behaviors in social commerce environment<sup>[1][34]</sup>. The regression analysis also indicated that intention to purchase on s-commerce websites partially mediates the relationships between two dimensions of social media usage and online shopping behaviors, which is compatible with prior research suggesting that intention to purchase is the psychological condition for customers to conduct real shopping behaviors<sup>[10][4]</sup>.

In addition, cultural distance functions differently to moderate the two dimensions of social media usage and intention to purchase on s-commerce websites. More specifically, cultural distance mitigates the effect of socializing social media usage on user's intention to purchase on s-commerce websites, whilst does not significant effects on the relationship between informational social media usage and user's intention to purchase on s-commerce websites. The research findings could be interpreted from two perspectives. On the one hand, cultural distance plays a deterring role for interpersonal interaction in s-commerce community. On the other hand, informational usage of social media could help individuals to conceptualize tangible learning into insightful interpretation and symbolic representation of another foreign culture<sup>[22]</sup>. In this regard, absorbed information and knowledge through social media usage may mitigate the perceived cultural novelty about the foreign culture, thus exerting insignificant impacts on user's intention to purchase on s-commerce sites.

## 5. THEORETICAL AND PRACTICAL IMPLICATIONS

To the best of our understanding, this is among the first trials to unveil how social media usage impacts the online shopping behaviors in a foreign context. Based on research findings, this study makes several important contributions both theoretically and practically.

First, this research unveils the mechanism through which two dimensions of social media usage, informational and socializing, impact user's online shopping behaviors in cross-cultural environment. And this expands the literature of both information management and social commerce research. Second, intention to purchase on s-commerce websites was found to partially mediate the relationships between two dimensions of social media usage and user's online shopping behavior. This unveils the conduit how prominence of social media impacts user's online shopping behavior and increases our understanding of the pathway social media usage follows to work on user's online shopping behavior. Third, this research explores the cultural boundary condition for social media usage in cross-cultural environment. Cultural distance is proved to be a noisy channel to impact interpersonal interaction in social commerce. And this enriches our knowledge about the cultural conditions relating to social commerce research.

This research also has managerial implications to practitioners. First, given that two dimensions of social media usage are conducive to increasing user's online shopping behaviors, s-commerce vendors should take measures to encourage potential customers to be more engaged in social media usage, either for informational purpose or socializing purpose. Second, any measures targeted to increase user's intention to purchase on s-commerce sites should be encouraged as well since intention to purchase on s-commerce sites has been identified as an effective conduit to increase online shopping behaviors in social media era. Third, vendors should seriously consider the deterring effects of cultural distance influencing interpersonal communications, thus negatively impacting user's intention to purchase. Any programs to disclose detailed products information contributing to the mitigation of perceived cultural novelty between countries should be advocated.

## 6. LIMITATIONS AND FUTURE RESEARCH

This research also has several limitations that offer avenues for future research. First, this research was conducted within a special group of expatriates, international students. Although this group reaches a large

number and deserves more scholastic interests, the research findings need more empirical investigations for future generalizability. Second, the research suggests that intention to purchase on s-commerce websites partially mediates the relationships between social media usage and user's online shopping behavior. More efforts are needed to examine other mediating roles to unveil the mechanism how to increase online shopping behaviors. Further, cultural distance was found to be a moderator influencing user's intention to purchase on s-commerce sites. Likewise, more investigations about boundary conditions in cross-cultural environment contribute to our knowledge how social commerce happens in a foreign environment. Finally, the cross-sectional research design also limits the explanatory effects of causation between constructs. Future longitudinal design or experimental research method could be adopted to replicate and generalize the research findings.

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