

# Are online influencers trustworthy? The virtual audience's response to online influencers' endorsement in China

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## **Abstract**

Although 'go-social' becomes an important part of the public's daily life in China, online users suffer from information overload increasingly when they get exposed to different online contents shared through various social media communication channels today. To compete on digital audience's attention and increase online communication effectiveness, online influencers are commonly employed by communication practitioners. However, questions like how powerful online influencers are and to what extent digital audience can be motivated by online influencers have not been answered appropriately. Hence, a 2x2 online experiment was used in this pilot study to identify how the use of online influencer endorsement with various social powers affected virtual audience's response toward the message and their decision-making. A total of 86 participants were voluntarily recruited from mainland China. The study indicated that the use of referent power and expert power could positively predict virtual audience's perception toward the promotional message. However, if online campaign would like to call for action and influence audience's behavior, the use of online influencers with expert power could be more effective than that with referent power.

## **Keywords**

Online communication, online influencers, opinion leaders, electronic word-of-mouth, referent power, expert power, communication effectiveness.

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## **Introduction**

Social media have been widely used by the young, especially children in global scale (Advertising Education Forum, 2012). Facing the significant 'go-social' trend contributed by the public (Tuten & Solomon, 2014), communication practitioners gradually put the marketing budgets to the online communication and promotion. Besides, social media is a critical component of corporate internal and external communication strategy, and an effective tool to do brand management (Taiminen & Karjaluoto, 2015). Studies prove that digitalization and the use of social media could positively benefit company's business growth and performance when competing in the market (Galloway, 2007; Shideler & Badasyan, 2012; Spurge & Roberts, 2005).

Compared with traditional media, social media communication is more effective thanks to its sticky nature (Confos and Davis, 2016; Montgomery & Chester, 2011). Many studies have been conducted to identify the relatively most effective digital communication channels and formats used to influence digital audience's involvement and their buying behavior (Dias & Agante, 2011; Hudson & Elliott, 2013; Redondo, 2012; Soontae & Kang, 2014), and the differences between traditional media communication and social media communication (Hang & Auty, 2011; Montgomery & Chester, 2009). However, most extant studies were considered from the communication vehicle's and technology's perspective, and fewer attention has been paid to the interaction between a source and receiver in the online communication process. Besides, questions like how powerful online influencers are and to what extent digital audience can be motivated by online influencers have not be answered appropriately. Hence, to bridge the research gap, this pilot study was conducted and 2x2 online experiment was employed to test how the use of online influencer endorsement with various social powers affected virtual audience's response toward the message and their decision-making.

## **Literature review**

### **Social power and online influencers**

Different online influencers have diverse social powers. The concept of power is hand in hand with leadership theories (Shafritz et al., 2015) and commonly discussed in organizational communication setting (Chiu et al., 2017). Social power with five levels was first developed by French and Raven in 1959, namely coercive power, reward power, legitimate power, expert power and referent power (Shafritz et al., 2015). Among them, coercive power and reward power are contradictory to each other. The first one focuses on the fear of punishment while the second one highlights the desire of incentives. Legitimate

power means designated power assigned to that position, which is related to the corporate or bureaucratic hierarchy, while the remaining two emphasize the perceived knowledge image and perceived admiration. The social power concept has been widely used in organizational communication studies such as employer-employee relationship and leadership (Chiu et al., 2017; Gülgöz & Gelman, 2016), interpersonal relationship (Narayanan et al., 2013), social dominance (Hawley et al., 2009), etc. However, previous studies barely applied and tested the impact of social power on online communication effectiveness. To fill in this literature gap, social powers, particularly reference power and expert power, were introduced to this project in that the first three powers like coercive, reward and legitimate power are closely tightened to organization communication between employers and employees thanks to the organizational hierarchy, and they are not applicable to online promotion between influencers and audience.

Influencer marketing was closely related to word-of-mouth as both of them relied on the referral's recommendation and endorsements to expand the impact of message dissemination and to improve the communication effectiveness (Gladwell, 2002; Rogers, 2003). With the development of the Internet, the use of influencer marketing has been expanded to digital world (Rhoda, 2014). Influencers were also named as opinion leaders with stronger public reputation and higher public familiarity than common people (Meng & Wei, 2016). The use of influencer marketing could boost the conversation between the source and online users (Roberts, 2010), and even influence the online users as well as their decision-making (Padgett, 2016). Although extant research explained the overall impact of online influencers on communication effectiveness, few studies have been conducted to identify and test those factors affecting the online influencer's communication effectiveness such as social power. To fill in this literature gap, social power, particularly expert and referent powers, was introduced to this study. Generally, expert and referent powers were grouped as personal power whereas the remaining three powers were viewed as formal power (Robbins & Judge, 2013). This study only analyzed the impact of personal power instead of formal power as few online influencers have formal power entitled by formal organization or bureaucratic hierarchy, and most of them are well-known and reputational due to their expertise and likeability.

To analyze the impact of social power on online influencers' endorsement, celebrities and industry experts were used in the pilot study. Compared with self-branded influencers who are online influential people doing personal branding by themselves, celebrities and industry experts have obvious public familiarity and visibility thanks to frequent media exposure and professional

image development and management done by public relations team. Besides, both celebrities and industry experts were assumed to possess expert power and referent power, and public are more familiar with public figures. According to Daniel Boorstin's publication titled *The image: A guide to pseudo-events in America* (1971), celebrities are more likely to be symbolized by their name rather than their performance and contributions in celebrity industry. Industry experts refer to the well-known people with professional skills and intelligence like doctors. The reason why celebrities had expert power was that expertise was perceived valid assertions (Erdogan, 1999). It was about perceived expert image in target audience's mind instead of the knowledge possessed by the endorsers (Erdogan, 1999). Previous study done by Speck, Schumann and Thompson (1988) showed that expert celebrities could positively enhance audience's buying intention. As to the referent power, both celebrities and industry experts were assumed to possess that power as long as target audience liked them (Tom et al., 1992). To test the online communication effectiveness, the following two questions were raised:

**Research question 1:** Can the use of online influencers with referent power or expert power affect virtual audience's attitude toward the communication message?

**Research question 2:** Can the use of online influencers with referent power or expert power affect virtual audience's behavioral intention?

## **Computational trust and persuasive communication**

One of the key purposes to use online influencers is to ensure that messages could go viral among target audience. On the Internet, viral marketing was about using e-WOM to customize the communication message and enhance the persuasion effectiveness among virtual audience (Cho et al., 2014; Porter & Golan, 2006). The identification of qualified influencers could improve the communication outcome, while source trust was defined as a key element affecting the viral marketing performance (Cho et al., 2014). Chaiken (1980) also pointed out that information receivers evaluated the information value based on the perceived trust about the information sender. The perceived social trust could influence the audience attitude (Sussman & Siegal, 2003) and even their behavioral intention (Dholakia, 1987). Recent study done by Lin, Spence and Lachlan (2016) proved that authority with expertise was highly credible on the Internet. Fogg and Tseng (1999) even tested that authority was a key part of computational trust and credibility. Based on the prior studies, we assumed:

**Hypothesis 1:** The higher the perceived expert power online influencer has, the stronger computational trust could be.

**Hypothesis 2:** There is significant interaction between perceived computational trust on influencer with expert power and (a) virtual audience's attitude toward the message as well as (b) their behavioral intention.

Besides, Busch and Wilson (1976) used to conduct an experiment to test salesperson's referent power and expert power, and the results claimed that referent power and expert power were significantly related to buyer's perceived trust on the salesperson. However, no existing studies tested whether identical impact, especially impact created by referent power, could be applied to online communication. Hence, the following research questions were proposed and answered in this study:

**Research question 3:** Is there significant interaction between the perceived referent power employed by online influencers and computational trust?

**Research question 4:** Is there significant interaction between perceived computational trust on influencer with referent power and (a) virtual audience's attitude toward the message as well as (b) their behavioral intention?

The other reason why marketers and communicators have been using online influencers to do promotion is to achieve persuasion. According to Powers (2007), persuasion was about influence. Current persuasion studies could be divided into three stages, namely persuasion effectiveness, identification of individual factors that could influence message processing, and interaction effect created by multiple determinants in message processing (Clark, 2014). Persuasion was also considered as a way to affect targets' will including attitude and even behavior (O'Keefe, 2012). Messages with different persuasion intentions had significantly diverse impact on participants' behavior. For example, a study done by Gollwitzer and Sheeran (2006) proved that explicit persuasion intention was more likely to encourage participants to take action. Based on this research finding, hypotheses 3 was proposed.

**Hypothesis 3:** The use of explicit persuasion intention is more effective than that of implicit persuasion intention in general.

## **Methodology**

### **Sampling method**

Convenience sampling was used in this study. Totally, 86 participants were voluntarily recruited from mainland China to do this pilot study. Among them, 60.5% of participants were aged from 18 to 24, followed by participants aged 25-34 which accounted for 22.1%. Totally, 36 males (41.9%) and 50 females (58.1%) were involved into this study. 80.2% of the individuals had a bachelor's degree or above.

Talking to their social media usage behavior, 64 participants claimed that they were using Weibo, the alternative of Twitter in China, when the online

experiment was conducted. 25.6% of participants mentioned that they did not use Weibo at the moment they did this online experiment. For participants with Weibo usage habit, 21 participants pointed out that they used Weibo everyday while 19 individuals used Weibo less frequently (once per week). Only 17 participants were Weibo heavy users. Among them, 10 participants consumed Weibo contents once per half day while the remaining 7 participants read Weibo posts once per hour.

## **Procedure**

To test online influencers' communication effectiveness, 2x2 experiment was conducted, including 2 types of online influencers and 2 types of messages with or without explicit persuasive intention. Totally, 4 experimental stimuli were designed and manipulated, namely celebrity endorsement with explicit persuasive intention, celebrity endorsement with implicit persuasive intention, industry experts' endorsement with explicit persuasive intention, and industry experts' endorsement with implicit persuasive intention.

Four experimental stimuli were evenly and randomly assigned to 86 participants. Before the experiment conduction, all participants were asked to read the informed consent statement carefully. For those individuals voluntarily participating in the online experiment, each of them was asked to follow instructions to read one experimental stimulus, and then structured as well as close-ended questions were raised to test their responses. The measurement of the online experiment contained four key parts including manipulation check relating to online influencers' familiarity and persuasive intention, participants' attitude toward the message and endorsed event as well as organization, questions indicating participants' behavioral intention, and questions to collect participants' basic demographic information.

The experimental stimuli were developed on the Sina Weibo's mobile version as Sina Weibo has been widely used in China. It was even reported to have 361 million active users each month as of June 2017 and 92% of penetration rate was contributed by mobile devices (Xinhua, 2017).

As to the experimental scenario, target was put on the public affair (protecting the natural environment), and the latest online communication campaign in China titled 'Protecting Endangered Chinese Pangolin', which was organized by non-profit organization – The Nature Conservancy, was chosen before the experiment was conducted in late October, 2017. The Nature Conservancy (TNC) was one of the leading conservation organizations around the world. The two manipulated online influencers were Jack Ma and Jackie Chan. Both of them have similar fan base on Weibo, the first with 22.54 million

fans and the second with 29.74 million fans. Besides, Jack Ma was the Lead Founder of TNC while Jackie Chan was the campaign ambassador. Although the campaign theme and online influencers were selected from the real life, the experiment messages were crafted and manipulated by the author in this study. Two types of messages were designed with either explicit or implicit persuasive intention. Both messages highlighted the campaign theme at the beginning with application of hashtag (#Protecting Endangered Chinese Pangolin) to create a topic on Weibo platform and used informational appeal to describe the hard situation where Chinese pangolin suffered. The difference between the two messages was that the one with obvious persuasive intention emphasized 'call for action' at the end of Weibo post by encouraging target audience to not get involved in the Chinese pangolin-related business deal.

Talking to the measurement of expert power and referent power, revised scale of French and Raven's social power developed by Hinkin and Schriesheim (1989) was used in this study. Totally, four items were employed to test the online influencer's expert power while 5 items were used to evaluate the online influencer's referent power. As to the perceived expert power, 7-point scale measurement was used to test how participants perceived the influencer's expert power (Cronbach's  $\alpha = .91$ ,  $M=4.67$ ), and the following four items were tested: influencer's professional knowledge, influencer's relevant personal experience, influencer's reasonable suggestions, and influencer's credibility in specific industry. As to the perceived referent power, 7-point scale measurement was also employed to test the perceived referent power (Cronbach's  $\alpha = .89$ ,  $M=4.82$ ) from five aspects including sense of approval, sense of personal acceptance, sense of self-importance, perceived reliability and likeability, perceived respect.

## **Experimental manipulation**

Online influencers' familiarity and the message's persuasive intention were manipulated in this study. Manipulation check relating to influencer's familiarity was performed by participants indicating on 7-point scale (1= extremely unfamiliar, 7= extremely familiar): 'How familiar are you with the Weibo user who sent the post to you?' ( $M= 4.84$ ,  $SD= 2.15$ ). Among 86 participants, 38.4% of them claimed that they were extremely familiar with the online influencers used in this online experiment while 12.8% of participants mentioned that they were extremely unfamiliar with the two online influencers used in the study.

Moreover, manipulation check for persuasive intention was tested on 7-point scale (1= extremely weaker, 7= extremely stronger): 'How persuasive is the Weibo post you read?' ( $M= 4.93$ ,  $SD= 1.34$ ,  $p= .718$ ). *Table 1* showed there was no significant persuasive difference between the two types of messages

used in this study. The message that author assumed to be explicitly persuasive ( $M= 4.89$ ,  $SD= 1.40$ ) received similar level of participants' response on the message persuasiveness like the one assumed to be implicitly persuasive ( $M= 5.00$ ,  $SD= 1.24$ ).

Table 1

**Results of manipulation check  
on persuasive intention (N=86)**

	Message persuasiveness (Mean)
Message with explicit persuasive intention	4.89
Message with implicit persuasive intention	5.00
Message with different persuasive intention (1= explicit persuasive intention; 2 = implicit persuasive intention)	4.93
<i>N</i>	86
se (of estimate)	.144

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

**Independent variables**

Table 2 reflected that there was no significant power difference in the two selected online influencers. As to the referent power, selected celebrity ( $M= 4.77$ ,  $SD= 1.13$ ) and industry expert ( $M= 4.88$ ,  $SD= 1.49$ ) has similar perceived referent power ( $t(84) = -.391$ ,  $p=.697$ ), and same as the perceived expert power ( $t(84) = -1.398$ ,  $p=.166$ ). Selected celebrity ( $M= 4.47$ ,  $SD= 1.36$ ) was perceived as professional as selected industry expert ( $M= 4.91$ ,  $SD= 1.51$ ).

Table 2

**Results of manipulation check  
on influencer's power difference (N=86)**

	Reference power (Mean)	Expert power (Mean)
Selected celebrity	4.77	4.47
Select industry expert	4.88	4.91
Power difference	4.82	4.67
<i>N</i>	86	86
se (of estimate)	.140	.156

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

## **Dependent variables**

In this study, communication effectiveness was tested on two levels, attitude toward the message and behavioral intention. 7-point scale measurement was used to test how participants perceived the message (Cronbach's  $\alpha = .95$ ,  $M=5.70$ ), and the following six items were tested: extremely bad – extremely good, extremely negative – extremely positive, extremely dislikeable – extremely likeable, extremely disagreeable – extremely agreeable, extremely insincere – extremely sincere, extremely useless – extremely useful. Scale questions (1= definitely no, 7= definitely yes) were also applied to test behavioral intention (Cronbach's  $\alpha = .96$ ,  $M=4.91$ ), and the following four aspects were covered in the experiment: whether you will continue to follow updates relating to the campaign, whether you will participate in this campaign, whether you will invite others to follow the updates relating to this campaign, and whether you will invite others to participate in the campaign.

## **Data analysis and results**

To analyze the data, regression analysis, Pearson correlation, and PROCESS (Hayes, 2013) were used to test the moderation model proposed in this study.

## **The power of online influencers and communication effectiveness**

In order to answer research question one, regression analysis was employed to test the relationship among referent power, expert power, and virtual audience's responses to promotional message in affective level. According to *Table 3 Model 1*, the whole model explained 51% of the variance of virtual audience's attitude toward the communication message ( $F(49, 48) = 42.41$ ,  $R = .51$ ,  $p < .001$ ). Online influencer with perceived referent power ( $b = .356$ ,  $p < .01$ ) and online influencer with perceived expert power ( $b = .227$ ,  $p < .05$ ) could positively predict the way virtual audience perceived the promotional message. Online influencer with perceived referent power (Tolerance = .32, VIF = 3.16) and online influencer with perceived expert power (Tolerance = .32, VIF = 3.16) didn't have multicollinearity effects of independent variables in this study. Results indicated that both referent power and expert power were significant predictors of audience's attitude toward the promotional message.

Research question two was about whether referent power and expert power were significant predictors of virtual audience's behavioral intention. *Table 3 Model 2* showed that expert power had an impact on virtual audience's behavioral intention ( $b = .58$ ,  $p < .001$ ) while referent power could not predict audience's behavioral intention ( $b = .044$ ,  $p = .76$ ). The whole model explained 47%

of the variance of virtual audience’s behavioral intention toward the promotional message ( $F(67, 76) = 36.29, R = .47, p < .001$ ). Online influencer with perceived referent power (Tolerance = .32, VIF = 3.16) and online influencer with perceived expert power (Tolerance = .32, VIF = 3.16) didn’t indicate multicollinearity problem in this study.

Table 3

**Regression results of perceived online influencers’ power and communication effectiveness**

	<b>Model 1: Attitude toward message</b>	<b>Model 2: Behavioral intention</b>
Perceived referent power	.356** (.112)	.044 (.142)
Perceived expert power	.227* (.101)	.580*** (.128)
Constant	2.920	1.986
N	86	86
se (of estimate)	.32	.400
R <sup>2</sup>	.51	.47

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

**Perceived power and computational trust**

Hypothesis one and research question three were developed to analyze the relationship between online influencer power and perceived computational trust. H1 predicted that expert power was positively correlated with the perceived computational trust in virtual audience’s mind while research question three would like to figure out whether there was correlation between referent power and computational trust in virtual world. Table 4 indicated that both referent power and expert power were positively associated with perceived computational trust. Compared with expert power ( $r = .56, p < .01$ ), referent power ( $r = .62, p < .01$ ) had a stronger relationship with perceived computation trust. Hence, H1 was proved whereas research question three was answered.

**Pearson correlation results on influencer power  
and computational trust (N=86)**

		Referent power	Expert power	Computational trust
Referent power	Pearson correlation	1	.827**	.618**
	Sig. (2-tailed)		.000	.000
Expert power	Pearson correlation	.827**	1	.555**
	Sig. (2-tailed)	.000		.000
Computational trust	Pearson correlation	.618**	.555**	1
	Sig. (2-tailed)	.000	.000	
**. Correlation is significant at the 0.01 level (2-tailed).				

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

### Moderation analysis for computational trust

To test H2, PROCESS was used in this study to evaluate the moderation impact of computational trust on expert power and virtual audience's attitude and behavioral intention. Table 5.1 and 5.2 reflected the results. When computational trust was low, there was a non-significant positive relationship between use of expert power and virtual audience's attitude toward the communication message ( $b = .20$ , 95% CI [-.05, .44],  $t = 1.58$ ,  $p = .12$ ). At the mean value of computational trust, there was a significant positive relationship between use of expert power and virtual audience's attitude toward the communication message ( $b = .29$ , 95% CI [.13, .45],  $t = 3.53$ ,  $p < .001$ ). When computational trust was high, there was also a significant positive relationship between use of expert power and virtual audience's attitude toward the communication message ( $b = .39$ , 95% CI [.21, .56],  $t = 4.47$ ,  $p < .001$ ). The whole model explained 56% variance of audience's attitude towards promotional message, but there was no significant interaction impact between computational trust and perceived expert power on audience's attitude ( $R = .56$ ,  $F(3.00, 82.00) = 42.50$ ,  $p = .16$ ).

Table 5.1

**Regression results for moderation analysis for computational trust  
on expert power and attitude (N=86)**

	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	5.62 [5.42, 5.82]	.10	54.67	$p < .001$
Computational trust	.35 [.16, .53]	.09***	3.75	$p < .001$
Expert power	.29 [.13, .45]	.08***	3.53	$p < .001$
Computational trust x Expert power	.07 [-.03, .17]	.05	1.43	$p = .16$

Note:  $R^2 = .56$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

Table 5.2 showed the regression results for moderation analysis of computational trust on audience's behavioral intention. When computational trust was low, there was a significant positive relationship between use of expert power and virtual audience's behavioral intention ( $b = .45$ , 95% CI [.17, .73],  $t = 3.20$ ,  $p = .002$ ). At the mean value of computational trust, there was a significant positive relationship between use of expert power and virtual audience's behavioral intention ( $b = .55$ , 95% CI [.38, .72],  $t = 6.42$ ,  $p < .001$ ). When computational trust was high, there was also a significant positive relationship between use of expert power and virtual audience's behavioral intention ( $b = .66$ , 95% CI [.47, .84],  $t = 6.98$ ,  $p < .001$ ). The results told us that the relationship between expert power and audience' behavioral intention would emerge no matter the level of computational trust was low, average or high. In other words, the whole model explained 48% variance of audience's behavioral intention toward promotional message, but there was no outstanding impact of perceived expert power on audience's behavioral intention under the moderation of computational trust ( $R^2 = .48$ ,  $F(3.00, 82.00) = 25.48$ ,  $p = .21$ ). Based on Table 5.1 and 5.2, H2 was rejected.

Table 5.2

**Regression results for moderation analysis for computational trust  
on expert power and behavior (N=86)**

	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	4.83 [4.61, 5.05]	.11	43.94	$p < .001$
Computational trust	.08 [-.13, .28]	.10	.75	$p = .46$
Expert power	.55 [.38, .72]	.09***	6.42	$p < .001$
Computational trust x Expert power	.08 [-.04, .19]	.06	1.26	$p = .21$

Note:  $R^2 = .48$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

Moreover, PROCESS was applied to research question four to identify whether there was a significant interaction impact between perceived computational trust and influencer with referent power on (a) virtual audience's attitude toward the message and (b) their behavioral intention. Table 6.1 indicated that moderation effect of computational trust on referent power and virtual audience's attitude was not shown up by a significant interaction effect ( $b = .06$ , 95% CI [-.02, .14],  $t = 1.42$ ,  $p = .16$ ).

Table 6.1

**Regression results for moderation analysis for computational trust  
on referent power and attitude (N=86)**

	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	3.72 [1.72, 5.73]	1.01	3.69	$p < .001$
Computational trust	.03 [-.32, .38]	.17	.17	$p = .86$
Referent power	.04 [-.48, .56]	.26	.15	$p = .88$
Computational trust x Referent power	.06 [-.02, .14]	.04	1.42	$p = .16$

Note:  $R^2 = .55$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

Table 6.2 described the results for moderation effect of computational trust on referent power and virtual audience's behavior intention. The moderation effect was not of significance ( $b = .12$ , 95% CI  $[-.00, .24]$ ,  $t = 1.98$ ,  $p = .05$ ). When computational trust was low, there was a significant positive relationship between use of referent power and virtual audience's behavioral intention ( $b = .28$ , 95% CI  $[.06, .50]$ ,  $t = 2.51$ ,  $p = .01$ ). At the mean value of computational trust, there was also a significant positive relationship between use of referent power and virtual audience's behavioral intention ( $b = .36$ , 95% CI  $[.20, .52]$ ,  $t = 4.48$ ,  $p < .001$ ). When computational trust was high, significant positive relationship between use of referent power and virtual audience's behavioral intention could be identified, as well ( $b = .44$ , 95% CI  $[.28, .61]$ ,  $t = 5.31$ ,  $p < .001$ ).

Table 6.2

**Regression results for moderation analysis for computational trust on referent power and behavior (N=86)**

	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	4.74 [1.82, 7.66]	1.47	3.23	$p < .05$
Computational trust	-.41 [-.91, .10]	.25	-1.60	$p = .11$
Referent power	-.18 [-.93, .58]	.38	-.47	$P = .64$
Computational trust x Referent power	.12 [-.00, .24]	.06	1.98	$p = .05$

Note:  $R^2 = .37$ .

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

In this case, the answer of research question four should be 'No'. Perceived computational trust cannot adjust the impact of influencer's referent power on audience's perception toward the endorsed social media message and audience's behavioral intention.

**Moderation analysis for persuasive intention impact**

Even though the two types of messages used in the experiment were perceived no significant difference on persuasive strength, the overall moderation effect of message persuasive intention on message effectiveness could still be tested. Table 7.1 reflected that persuasive intention had no significant moderation effect

on the relationship between influencer power and virtual audience’s perception toward the promotional message (Expert power:  $b = .02$ , 95% CI [-.07, .11],  $t = .35$ ,  $p = .73$ ; Referent power:  $b = -.03$ , 95% CI [-.11, .06],  $t = -.64$ ,  $p = .53$ ). No matter which message type, with or without explicit persuasion, was employed in the experiment, there was always a positive relationship between influencer power and audience’s attitude toward the message.

Table 7.1

**Regression results for moderation analysis for persuasion intention on perceived power and attitude (N=86)**

	Persuasion intention x Expert power				Persuasion intention x Referent power			
	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	3.00 [.85, 5.15]	1.08	2.78	$p < .05$	1.70 [-.33, 3.72]	1.02	1.66	$p = .10$
Persuasion intention	.24 [-.20, .68]	.22	1.10	$p = .28$	.43 [.02, .83]	.20*	2.10	$p < .05$
Power	.24 [-.25, .73]	.25	.98	$p = .33$	.53 [.08, .97]	.22*	2.34	$p < .05$
Interaction	.02 [-.07, .11]	.05	.35	$p = .73$	-.03 [-.11, .06]	.04	-.64	$p = .53$

Note:  $R^2 = .55$  (persuasion intention x expert power);  $R = .58$  (persuasion intention x referent power).

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

What about behavioral intention? Table 7.2 showed that persuasion intention cannot significantly moderate the impact of influencer power on audience’s behavioral intention (Expert power:  $b = .10$ , 95% CI [-.01, .22],  $t = 1.75$ ,  $p = .08$ ; Referent power:  $b = .11$ , 95% CI [-.01, .23],  $t = 1.89$ ,  $p = .06$ ). In this case, H3 was rejected.

Table 7.2

**Regression results for moderation analysis for persuasion intention  
on perceived power and behavior intention (N=86)**

	Persuasion intention x Expert power				Persuasion intention x Referent power			
	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>	<i>b</i>	<i>SE B</i>	<i>t</i>	<i>p</i>
Constant	3.92 [1.18, 6.65]	1.38	2.85	$p < .05$	4.14 [1.23, 7.05]	1.46	2.83	$p < .05$
Persuasion intention	-.29 [-.84, .27]	.28	-1.02	$P = .31$	-.24 [-.82, .34]	.29	-.83	$P = .41$
Power	-.01 [-.63, .61]	.31	-.04	$p = .97$	-.16 [-.80, .48]	.32	-.49	$p = .62$
Interaction	.10 [-.01, .22]	.06	1.75	$p = .08$	.11 [-.01, .23]	.06	1.89	$p = .06$

Note:  $R^2 = .51$  (persuasion intention x expert power);  $R^2 = .42$  (persuasion intention x referent power).

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$

## Discussions and conclusions

This pilot study was conducted between late October and late November, 2017 to test whether the use of online influencers with different social powers could have any impact on communication effectiveness. The results indicated that the use of referent power and expert power could positively predict virtual audience's perception toward the promotional message (research question 1). However, compared with expert power, the use of referent power in online promotion cannot effectively influence virtual audience's behavior (research question 2). Both perceived expert power (H1) and referent power (research question 3) could win the trust from virtual audience effectively, but the computational trust built between online influencers and virtual audience could not moderate audience's perception toward the promotional message and predict their behavior later (H2 and research question 4). Moreover, the message persuasive intention couldn't significantly contribute to the outcome of promotional message delivery when influencers were used to do online endorsement (H3).

Some marketing insights could be identified based on the research findings mentioned above. To enhance the good image of online campaign, marketing and communication practitioners could invite online influencers to do testimonials for their campaign. When doing online communication, online influencers are more easily to build trust with virtual audience. If they personalize referrals and recommendations for endorsed brands and products, virtual audience are more willing to have a positive attitude toward the referrals and recommendations. This also partially explains the prevalence of over-endorsement (Hung et al., 2011) for one specific online influencer in China. For example, Papi Jiang, famous online influencer and comedian in China, who successfully endorsed 155 brands in 2017 (Du, 2018). The brand choice ranges from sports brands like New Balance to auto vehicles such as Chevrolet and Nissan. In addition, if the campaign aims to call for action and influence virtual audience's behavior, marketers and communicators should be more careful when selecting and even employing online influencers. Compared with online influencers with referent power, online influencers with expert power are more credible and trustworthy. Furthermore, if virtual audience perceive the online influencers equipped with either referent power or expert power, the online campaign could be effectively communicated, and the promotional message could be persuasive even though the endorsed message itself doesn't include any explicit persuasive intention/strength.

## **Limitations**

Some limitations exist in this study. First, since this study is a pilot one, the sample size is not large enough. It may influence the generalizability of research results. Besides, this study chose to test online influencers' communication effectiveness in the context of NGO- or corporate social responsibility-related online campaign. Different campaign natures may have an impact on the conclusions drawn in study. Hence, future studies can apply the identical experimental design to other online promotion campaigns like commercial campaigns promoting corporate products and services and test the power of online influencers. In addition, action gap may occur as measurement on audience's behavior focuses on their behavioral intention instead of actual behaviors or actions. Future studies may take measurements about actual behaviors into consideration.

## **References**

*Advertising Education Forum (2012). Digital marketing and advertising to children: A literature review.* Available from: <http://www.aeforum.org/gallery/9256481.pdf> [Accessed 6th July 2018].

- AJZEN, I. & FISHBEIN, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ, Prentice Hall.
- AJZEN, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), pp. 179–211.
- ANG, S. H. & LOW, S. Y. M. (2000). Exploring the dimensions of ad creativity. *Psychology & Marketing*, 17(10), pp. 835–854.
- BOORSTIN, D. J. (1971). *The image: A guide to pseudo-events in America*. New York, Atheneum.
- BUSCH, P. & WILSON, D. T. (1976). An experimental analysis of a salesman's expert and referent bases of social power in the buyer-seller dyad. *Journal of Marketing Research (JMR)*, 13(1), pp. 3–11.
- CHAIKEN, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology: Attitudes and Social Cognition*, 39(5), pp. 752–766.
- CHIU, C. Y., BALKUNDI, P., & WEINBERG, F. J. (2017). When managers become leaders: The role of manager network centralities, social power, and followers' perception of leadership. *The Leadership Quarterly*, 28(2), pp. 334–348.
- CHO, S., HUH, J., & FABER, R. J. (2014). The influence of sender trust and advertiser trust on multistage effects of viral advertising. *Journal of Advertising*, 43(1), pp. 100–114.
- CLARK, J. K. (2014). Antecedents of message processing in persuasion: Traditional and emergent perspectives. *Social and Personality Psychology Compass*, 8(10), pp. 595–607.
- CONFOS, N. & DAVIS, T. (2016). Young consumer-brand relationship building potential using digital marketing. *European Journal of Marketing*, 50(11), pp. 1993–2017.
- DHOLAKIA, R. R. (1987). Source credibility effects: A test of behavioral persistence. *ACR North American Advances*, 6731(14), NA–14.
- DIAS, M. & AGANTE, L. (2011). Can advergames boost children's healthier eating habits? A comparison between healthy and non-healthy food. *Journal of Consumer Behavior*, 10(3), pp. 152–160.
- DU, Y. (2018). Papi Jiang and her team participated in 155 brand endorsements in 2017. *Adquan*. Available from: <http://www.adquan.com/post-2-43414.html> [Accessed 16th September 2018].
- ERDOGAN, B. Z. (1999). Celebrity endorsement: A literature review. *Journal of Marketing Management*, 15(4), pp. 291–314.
- FOGG, B. J. & TSENG, H. (1999). The elements of computer credibility. In: *Proceedings of the SIGCHI conference on human factors in computing systems*, 1st ed. New York, USA, ACM, pp. 80–87.

GALLOWAY, L. (2007). Can broadband access rescue the rural economy? *Journal of Small Business and Enterprise Development*, 14(4), pp. 641–653.

GLADWELL, M. (2002). *The tipping point: How little things can make a big difference*. United States, Back Bay Books.

GOLLWITZER, P. M. & SHEERAN, P. (2006). Implementation intentions and goal achievement: A meta-analysis of effects and processes. *Advances in Experimental Social Psychology*, 38, pp. 69–119.

GULGOZ, S. & GELMAN, S. A. (2016). Who's the boss? Concepts of social power across development. *Child Development*, 88(3), pp. 946–963.

HANG, H. & AUTY, S. (2011). Children playing branded video games: The impact of interactivity on product placement effectiveness. *Journal of Consumer Psychology*, 21(1), pp. 65–72.

HAWLEY, P. H., SHOREY, H. S., & ALDERMAN, P. M. (2009). Attachment correlates of resource-control strategies: Possible origins of social dominance and interpersonal power differentials. *Journal of Social and Personal Relationships*, 26(8), pp. 1097–1118.

HAYES, A. F. (2013). *Introduction to mediation moderation and conditional process analysis – a regression-based approach*. New York, Guilford Press.

HINKIN, T. R. & SCHRIESHEIM, C. A. (1989). Development and application of new scales to measure the French and Raven (1959) bases of social power. *Journal of Applied Psychology*, 74(4), p. 561.

HUDSON, S. & ELLIOTT, C. (2013). Measuring the impact of product placement on children using digital brand integration. *Journal of Food Products Marketing*, 19(3), pp. 176–200.

HUNG, K., CHAN, K. W., & TSE, C. H. (2011). Assessing celebrity endorsement effects in China: A consumer-celebrity relational approach. *Journal of Advertising Research*, 51(4), pp. 608–623.

KOVER, A. J., GOLDBERG, S. M., & JAMES, W. L. (1995). Creativity vs. effectiveness? An integrating classification for advertising. *Journal of Advertising Research*, 35(6), pp. 29–40.

LIN, X., SPENCE, P. R., & LACHLAN, K. A. (2016). Social media and credibility indicators: The effect of influence cues. *Computers in Human Behavior*, 63(Supplement C), pp. 264–271.

MCQUARRIE, E. F. & MICK, D. G. (1992). On resonance: A critical pluralistic inquiry into advertising rhetoric. *Journal of Consumer Research*, 19(2), pp. 180–197.

MENG, F. & WEI, J. L. (2016). Can opinion leader influence the purchase intention of online consumer? *International Journal of u- and e- Service, Science and Technology*, 9(1), pp. 373–384.

MONTGOMERY, K. C. & CHESTER, J. (2009). Interactive food and beverage marketing: Targeting adolescents in the digital age. *Journal of Adolescent Health*, 45(3), pp. S18–S29.

MONTGOMERY, K. C. & CHESTER, J. (2011). Digital food marketing to children and adolescents: Problematic practices and policy interventions. *Public Health and Law Policy*. Available from: [https://www.foodpolitics.com/wp-content/uploads/DigitalMarketingReport\\_FINAL\\_web\\_20111017.pdf](https://www.foodpolitics.com/wp-content/uploads/DigitalMarketingReport_FINAL_web_20111017.pdf) [Accessed 16th September 2018].

NARAYANAN, J., TAI, K., & KINIAS, Z. (2013). Power motivates interpersonal connection following social exclusion. *Organizational Behavior and Human Decision Processes*, 122(2), pp. 257–265.

O'KEEFE, D. J. (2012). Conviction, persuasion, and argumentation: Untangling the ends and means of influence. *Argumentation*, 26(1), pp. 19–32.

PADGETT, L. (2016). Word of mouth matters. *Information Today*, 33(8), pp. 19–19.

PERACCHIO, L. A. & MEYERS-LEVY, J. (1994). How ambiguous cropped objects in ad photos can affect product evaluations. *Journal of Consumer Research*, 21(1), pp. 190–204.

PORTER, L. & GOLAN, G. (2006). From subservient chickens to brawny men: A comparison of viral advertising to television advertising. *Journal of Interactive Advertising*, 6(2), pp. 30–38.

POWERS, P. (2007). Persuasion and coercion: A critical review of philosophical and empirical approaches. *HEC Forum*, 19(2), pp. 125–143.

REDONDO, I. (2012). The effectiveness of casual advergames on adolescents' brand attitudes. *European Journal of Marketing*, 46(11/12), pp. 1671–1688.

RHODA, W. (2014). Influencer marketing: How word-of-mouth marketing can strengthen your organization's brand. *Marketing Health Services*, 34(1), pp. 16–17.

ROBBINS, S. & JUDGE, T. (2013). *Organizational behavior*. Harlow, Essex, Pearson/Prentice Hall.

ROBERTS, J. (2010). Influencer marketing: Mobilise the people to shape your brand. *Marketing Week*. London, pp. 16–17.

ROGERS, E. M. (2003). *Diffusion of Innovation*. New York, Free Press.

SHAFRITZ, J. M., OTT, J. S., & JANG, Y. S. (2015). *Classics of Organization Theory*. Boston, MA, Wadsworth Cengage Learning.

SHIDELER, D. & BADASYAN, N. (2012). Broadband impact on small business growth in Kentucky. *Journal of Small Business and Enterprise Development*, 19(4), pp. 589–606.

SMITH, R. E., CHEN, J., & YANG, X. (2008). The impact of advertising creativity on the hierarchy of effects. *Journal of Advertising*, 37(4), pp. 47–61.

SOONTAE, A. & KANG, H. (2014). Advertising or games? Advergaming on the Internet gaming sites targeting children. *International Journal of Advertising*, 33(3), pp. 509–532.

SPECK, P. S., SCHUMANN, D. W., & THOMPSON, C. (1988). Celebrity endorsements-scripts, schema and roles: Theoretical framework and preliminary tests. *ACR North American Advances*, 6799(15), NA-15, pp. 69–76.

SPURGE, V. & ROBERTS, C. (2005). Broadband technology: An appraisal of government policy and use by small-and medium-sized enterprises. *Journal of Property Investment and Finance*, 23(6), pp. 516–524.

SUSSMAN, S. W. & SIEGAL, W. S. (2003). Informational influence in organizations: An integrated approach to knowledge adoption. *Information Systems Research*, 14(1), pp. 47–65.

TAIMINEN, H. M. & KARJALUOTO, H. (2015). The usage of digital marketing channels in SMEs. *Journal of Small Business and Enterprise Development*. 22(4). pp. 633–651.

TILL, B. D. & BAACK, D. W. (2005). Recall and persuasion: Does creativity matter? *Journal of Advertising*, 34(3), pp. 47–57.

TOM, G., CLARK, R., ELMER, L., GRECH, E., MASETTI, J., & SANDHAR, H. (1992). The use of created versus celebrity spokespersons in advertisements. *Journal of Consumer Marketing*, 9(4), pp. 45–51.

TUTEN, T. & SOLOMON, M. (2014). *Social media marketing*. Harlow, Essex, Pearson Education Limited.

XINHUA (2017). Weibo posts strong Q2 financial performance. *China Daily*. Available from: [http://www.chinadaily.com.cn/bizchina/tech/2017-08/10/content\\_30400704.htm](http://www.chinadaily.com.cn/bizchina/tech/2017-08/10/content_30400704.htm) [Accessed 6th July 2018].

XIE, K. & LEE, Y. J. (2015). Social media and brand purchase: Quantifying the effects of exposure to earned and owned social media activities in a two-stage decision making model. *Journal of Management Information Systems*, 32(2), pp. 204–238.