



# INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



[www.hrmars.com](http://www.hrmars.com)

ISSN: 2222-6990

## Inspection by Bootstrap Method in Virtual Brand Communities and Brand Relationships: Does Impression Management Play a Mediating Role?

Guo Bing, Asif Mahbub Karim, Nadia Farhana

To Link this Article: <http://dx.doi.org/10.6007/IJARBSS/v13-i3/16953>

DOI:10.6007/IJARBSS/v13-i3/16953

**Received:** 26 January 2023, **Revised:** 28 February 2023, **Accepted:** 15 March 2023

**Published Online:** 31 March 2023

**In-Text Citation:** (Bing et al., 2023)

**To Cite this Article:** Bing, G., Karim, A. M., & Farhana, N. (2023). Inspection by Bootstrap Method in Virtual Brand Communities and Brand Relationships: Does Impression Management Play a Mediating Role? *International Journal of Academic Research in Business and Social Sciences*, 13(3), 1759 – 1773.

**Copyright:** © 2023 The Author(s)

Published by Human Resource Management Academic Research Society ([www.hrmars.com](http://www.hrmars.com))

This article is published under the Creative Commons Attribution (CC BY 4.0) license. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this license may be seen at: <http://creativecommons.org/licences/by/4.0/legalcode>

Vol. 13, No. 3, 2023, Pg. 1759 – 1773

<http://hrmars.com/index.php/pages/detail/IJARBSS>

JOURNAL HOMEPAGE

Full Terms & Conditions of access and use can be found at  
<http://hrmars.com/index.php/pages/detail/publication-ethics>



# INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN BUSINESS & SOCIAL SCIENCES



[www.hrmar.com](http://www.hrmar.com)

ISSN: 2222-6990

## Inspection by Bootstrap Method in Virtual Brand Communities and Brand Relationships: Does Impression Management Play a Mediating Role?

Guo Bing<sup>1</sup>, Asif Mahbub Karim<sup>2</sup>, Nadia Farhana<sup>3</sup>

<sup>1</sup>PhD Candidate, Binary University of Management & Entrepreneurship, Malaysia, <sup>2</sup>Dean & Professor, Binary Graduate School, Binary University of Management & Entrepreneurship, Malaysia, <sup>3</sup>Assistant Professor, Stamford University Bangladesh, Bangladesh.

### Abstract

Virtual brand community citizenship behavior, as an important part of multiple behaviors in the community, has always had an important role for the healthy development and influence expansion of the brand itself. There are certain variables in the internal mechanism of citizenship behavior that affect the relationship between the citizens themselves and the brand itself, and there are some brand customers in corporate brand communities who gain brand attention and favor by beautifying their self-image and impression management, but in the brand management practice, is such behavior useful for corporate brand relationship maintenance? Do companies really need such behaviors to enhance the brand relationship with consumers? The authors conducted an empirical study and survey, collecting a sample of citizens from corporate brand communities for relevant analysis, and verified whether impression management plays a mediating role through structural equation modeling. The results show that virtual brand community citizenship behavior has a positive and significant effect on brand relationship, impression management has no significant effect on brand relationship, and virtual brand community citizenship behavior has a positive and significant effect on impression management. Bootstrap mediation effect test shows that impression management does not play a mediation effect in the influence of virtual brand community citizenship behavior on brand relationship. This indicates that companies need authentic and accurate brand community citizenship behaviors to maintain brand relationships, and brand community citizenship behaviors with a fake nature do not enhance the brand relationships between companies and consumers. This study contributes to the enrichment of the empirical literature on brand management and provides a reference for brand management practice.

**Keywords:** Virtual Brand Communities, Brand Relationships, Impression Management.

### Introduction

In today's digital and networked era, brand building and maintenance has become one of the important directions for corporate development. Virtual brand communities are an important platform for companies to interact with consumers, and brand community citizenship behaviors, as an important part of a wide range of community behaviors, have always played

an important role in the healthy development and expansion of the influence of the brand itself. Drawing on the definitions of organizational and customer citizenship, Ruo Chen (2012) defines virtual brand community citizenship as behaviors that is voluntarily generated by members of a virtual brand community, is not required by the community and is not part of the community reward system, but is generally beneficial to the community or other members of the community. This study argues that brand community citizenship behaviors refer to the behaviors of brand community members who actively participate in community activities, provide valuable information and resources, and promote the development and common interests of the brand community. The existence of certain variables in the internal mechanisms of citizenship behaviors that influence the relationship between the citizens themselves and the brand itself has become a hot and difficult area of research in the social sciences, and research has found that brand community citizenship behaviors can increase consumer loyalty and brand image goodwill, which in turn increases brand sales and profits. However, there are some brand customers in the corporate branding community who seek to gain brand attention and goodwill by embellishing their self-image and impression management (Afshar et al., 2019). With the rise of social media, more and more consumers tend to express themselves and showcase their lives and personal image through social media platforms, which also provides more promotional and marketing opportunities for companies. However, at the same time, some consumers have also resorted to fake tactics to gain attention from brands and the goodwill of other consumers to boost their brand attention and influence. One of the more common behaviors has become the filming of fake luxury videos and content. Some consumers will post fake luxury shopping experiences, travel experiences and other content on social media platforms, in a bid to gain more attention and favorable comments in the brand community by creating fake consumption scenarios and showing off their lifestyles. Such behaviors not only mislead other consumers' perceptions of brands and products, but also distort the authenticity and objectivity of brand community citizenship behaviors, thus affecting the healthy development and expansion of brand communities' influence. The existence of such behaviors calls into question the authenticity and objectivity of brand community citizenship behaviors and damages brand relationships. How to accurately assess the quality and value of brand community citizenship behaviors has become a common concern for companies and researchers alike. Therefore, this study's objective is to explore the impact of brand community citizenship behaviors on impression management, and to explore the impact of brand customers' behaviors on brand relationships through self-image beautification and impression management. Through an in-depth exploration of the internal mechanisms of brand community citizenship behaviors, it will provide more actionable theoretical and practical guidance for corporate branding, thereby promoting the healthy development and expansion of the influence of brand communities.

## **Literature Review and Hypothesis Development**

### **Literature Review**

With the development and popularity of the Internet, virtual brand communities have become an important platform for communication and exchange between companies and consumers. Quan et al (2010) found that the virtual brand community experience not only affects perceived usefulness directly, but also indirectly through perceived ease of use, while perceived ease of use only affects brand identity indirectly through perceived usefulness. In virtual brand communities, consumers can interact with companies in a variety of ways,

expressing their opinions and needs, obtaining relevant information and participating in brand marketing activities. At the same time, consumers show their image and personality in the virtual brand community and participate in brand community citizenship behaviors.

Virtual brand community citizenship behaviors refer to the ethical and social responsibility expected of community members that consumers display in virtual brand communities. This behavior is demonstrated by consumers' active participation in various activities in the virtual brand community, their willingness to share their experiences and knowledge, to provide help and support to other consumers, and to maintain order and stability in the brand community. In a virtual brand community, citizenship behaviors are the cornerstone of a healthy brand community and an important basis for trust and cooperation between consumers and companies. The impact of virtual branded community citizenship behaviors on businesses can be seen in the following areas:

Enhance brand awareness and reputation. Royo-Vela and Casamassima (2011) studied the impact of virtual brand communities on consumers' emotional commitment, satisfaction and word-of-mouth advertising through the ZARA case and empirical analysis. By actively participating in various activities and exchanges in the virtual brand community, consumers can demonstrate their identification and support for the brand to other consumers, which in turn enhances the brand's awareness and reputation.

Improving the relationship between businesses and consumers is crucial. Long & Bo (2015) explored the mechanisms by which virtual brand communities influence brand relationships, explaining how Xiaomi communities promote member identification, drive member interaction, conduct efficient communication, enhance member experience, and ultimately achieve and maintain good brand relationship quality. The virtual brand community citizenship behaviors can facilitate interaction and communication between consumers and companies, building up a relationship of trust and cooperation, which in turn enhances consumer loyalty and satisfaction.

Helps companies understand consumer needs and preferences. Consumer behaviors and communication in virtual brand communities can provide companies with valuable information to help them understand consumer needs and preferences, so they can develop more precise marketing strategies and product development solutions. Wu (2010) examined the relationship between consumer-to-consumer (C2C) interactions, brand knowledge and idea generation in virtual brand communities.

Enhancing a company's ability to innovate and be more competitive. Virtual brand community citizenship behaviors can provide companies with innovative ideas and inspiration, enhancing their ability to innovate and be competitive. Hsieh (2017) confirmed that switching costs, value co-creation, shared values, and opportunistic behaviors were critical factors that affected consumers when they established relationships with brands. In other words, these factors revealed close relationships among brand commitment, trust, and loyalty. The study found that consumers' personal attributes, social identity and brand loyalty all influence their performance of civic behaviors in virtual brand communities. In addition, consumers' behaviors in virtual brand communities are also influenced by other consumers, creating inter-consumer interactions and influences. Therefore, studying consumers' citizenship behaviors in virtual brand communities can help to gain insights into consumers' behavioral characteristics and motivations, develop more effective brand community management strategies, and promote the healthy development of enterprises and the realization of long-term competitive advantages.

Current research on the civic behaviors of virtual brand communities includes the following directions:

The factors that influence consumers' participation in civic behaviors in virtual brand communities, such as personal traits, social identity, brand loyalty, etc. Jiang & Ying (2015) used a questionnaire method to survey 445 virtual community members and other community members who are closer to them to explore the impact of three dimensions of virtual community sense (membership, influence, and immersion) on members' knowledge sharing intentions and their underlying mechanisms of action. A study of the impact of citizenship behaviors on brand commitment, i.e., the study of the impact of consumers' citizenship behaviors in virtual brand communities on the formation and maintenance of brand commitment. A study of the dynamic evolution of civic behaviors, i.e. the study of the dynamic evolution of consumers' civic. Qijie & Yongsheng (2002) analyses brand relationship management through brand experience management and describes the processes and aspects of brand experience, the measurement of brand experience, and the elements that facilitate the creation and delivery of brand experience.

Impression management is a common tool in brand marketing. Impression management, the process by which people control the impressions others form of them, plays an important role in interpersonal behavior (Leary & Kowalski, 1990), by adjusting and controlling consumers' perceptions and attitudes towards the brand, the image and competitiveness of the brand is thereby enhanced. Impression management not only helps an individual or organization to build a positive image and reputation, but it can also be effective in enhancing the perception, credibility and influence of an individual or organization in the public, and thus achieving certain goals or reaping certain benefits. But does impression management really have a significant effect? The behavioral impression management of individual citizens in virtual brand communities can lead to individuals being portrayed in a way that does not match their true selves. Xue (2020) found through her study that most people believed that their image portrayal through social media (TikTok) did not match the individual's realistic image. College students of different genders showed significant differences in TikTok self-presentation, negative and passive impression management attitudes, and motivation for image rebranding impression management. This suggests that the phenomenon and fact of false impression management is very common in virtual brand communities using the internet as a communication medium, and that when citizens try to change their image, they may lose their authenticity and naturalness, which may lead to other citizens in the brand community feeling inauthentic or hypocritical. There is a lack of relevant research on whether impression management has a mediating role in the process of influencing citizen behaviors in virtual brand communities on brand relationships. While some studies in the literature suggest that there is a correlation between virtual brand community citizenship behaviors and brand relationships, there is still a lack of research that explores the mediating mechanisms involved in depth.

Therefore, an empirical study is needed to investigate whether impression management has a mediating role between citizen behaviors and brand relationships in virtual brand communities, and to provide an in-depth analysis of the mechanisms of the mediating role. This will help to further understand the complexity of consumer behaviors and brand relationships in virtual brand communities and provide more scientific guidance for brand management and marketing.

### **Hypothesis Development**

Citizenship behaviors in virtual brand communities are closely related to brand relationships. Citizenship behaviors refer to a range of positive behaviors exhibited by consumers in a virtual brand community, such as participating in brand activities, actively communicating and providing feedback. These citizenship behaviors can bring many benefits to a brand, such as increasing brand awareness, promoting brand word-of-mouth and increasing brand loyalty. On the one hand, civic behaviors in virtual brand communities help consumers to build a good relationship with the brand. For example, by participating in brand activities, consumers can gain a deeper understanding of the brand's culture and philosophy and strengthen their emotional connection with the brand. Through active communication, consumers can interact and communicate with the brand and build a stronger bond. These civic behaviors can help consumers build trust and loyalty to the brand, thus increasing the brand's influence and market competitiveness. On the other hand, brand relationships may also influence consumers' performance of citizenship behaviors in virtual brand communities. For example, if consumers have a high level of loyalty and identification with a brand, they may be more willing to actively participate in brand activities, share brand information and other civic behaviors. Conversely, if consumers lack trust in the brand or have a biased perception, they may boycott the brand or adopt negative civic behaviors, which may have a negative impact on the brand.

Citizenship behaviors and brand relationships are therefore important management and marketing tools for both companies and consumers in virtual brand communities. Companies need to encourage consumers to actively participate in the community by developing effective brand management strategies, and they also need to strengthen their connections with consumers to enhance their trust and identification with the brand. Consumers, in turn, need to be actively involved in the brand community to strengthen their connection with the brand and to support and maintain it.

### **Hypothesis 1: Virtual brand community citizenship behaviors has a positive impact on brand relationships**

Citizenship behaviors and impression management in virtual brand communities are closely related. Citizenship behaviors refers to a range of positive behaviors exhibited by consumers in a virtual brand community, such as participating in brand activities, actively communicating and providing feedback. Impression management, on the other hand, refers to a range of strategies and behaviors that consumers adopt in order to control their image and reputation in the community. Consumers' civic behaviors in virtual brand communities are often closely linked to their impression management strategies. For example, some consumers enhance their image and reputation in the community by engaging in brand activities, posting positive reviews about the brand, and other behaviors. Other consumers, on the other hand, have adopted behaviors such as false advertising and creating fake reviews to enhance their image and reputation in their communities. These behaviors may have a positive or negative impact on consumers and the brand itself (Polas et al., 2020). At the same time, impression management may also affect consumers' performance of civic behaviors in virtual brand communities. For example, if consumers feel that their image and reputation in the community has been tarnished, they may adopt more positive citizenship behaviors to repair their image and reputation, or conversely, adopt more negative behaviors to express their dissatisfaction with or resistance to the brand.

Impression management and citizen behaviors are therefore important management and marketing tools for both companies and consumers in virtual brand communities. Companies need to encourage consumers to actively participate in the community by developing effective brand management strategies, while also taking steps to prevent consumer behaviors such as false advertising and fake reviews. Consumers, for their part, need to maintain integrity in impression management, while also actively participating in the brand community to enhance their reputation and image in the community.

### **Hypothesis 2: Virtual brand community citizenship behaviors has a positive impact on impression management**

Impression management is a very important aspect of brand marketing, which aims to adjust and control consumers' perceptions and attitudes towards a brand, thereby enhancing its image and competitiveness. However, whether impression management of citizen behaviors in virtual brand communities has an impact on brand relationships needs to be empirically analyzed. Several studies in the literature suggest that impression management has a significant impact on brand relationships. For example, consumers' perceptions and attitudes towards brands are often influenced by brand marketing activities, such as brand advertising and promotional activities. If brands can adjust and control consumers' perceptions and attitudes through impression management tools, they can increase brand loyalty and trust, thus enhancing the brand relationship. But in virtual brand communities, where the complexity of citizens' behaviors and brand relationships is more pronounced, are these behaviors influenced by brand relationships through impression management? Are these behaviors processed or deliberately disguised through impression management? A more scientific and rigorous empirical study is needed to explore the mechanisms of impression management on brand relationships in order to provide more effective guidance for brand management and marketing.

### **Hypothesis 3: Impression management has a positive impact on brand relationships, and impression management plays a mediating role in the impact of virtual brand community citizenship behaviors on brand relationships**

#### **Methodology**

This study adopted positivist research philosophy and used quantitative research and questionnaire method to collect data, the sample came from members of a brand's internet social media brand community, questionnaires were sent and collected through internet authors, a total of 280 questionnaires were sent and 242 valid questionnaires were collected, the recovery rate was 86.42%.

After a thorough literature study, this study used the following variables to measure several latitudes of the research model and to verify the reliability and validity of the questionnaire by SPSS 23, Mplus 8 was used to construct the structural equation model and perform the model fit test, model parameter test, and mediating effect test.

Table1  
 Measurement Variables

Measurement Variables	Measurement Dimensions (Items)	Source
Virtual Brand Community	Positive Word of Mouth (5) Active participation (4) Maintaining order (4) Helping others (7)	Ruochen(2012)
Impression Management	Self-promotion (9) Ingratiation (4)	Bolino and Turnley(1999)
Brand Relationships	Expression of social values (5) Trust (5) Interdependence (4) A true sense of entitlement (5) Commitment (4) Self-concept bonding (2)	Xun(2006)

**Conceptual Framework**

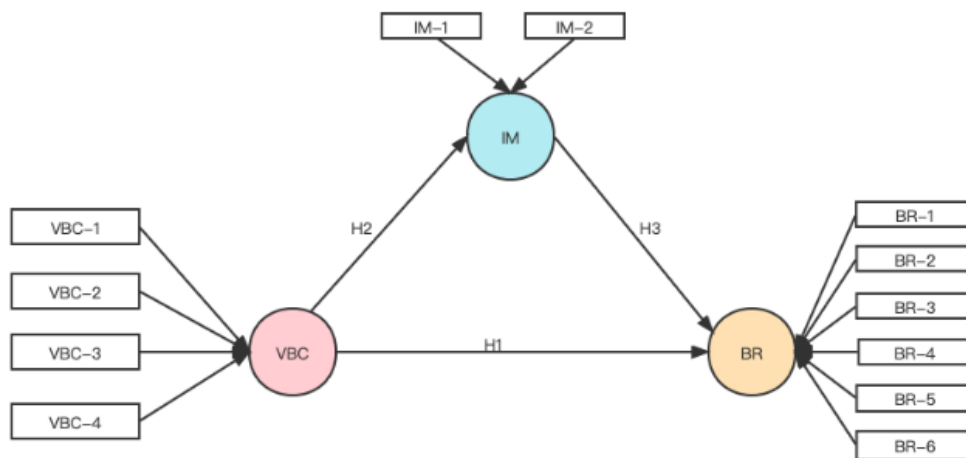


Figure1: Conceptual Framework

**Reliability and Validity Tests**

The Cronbach's Alpha test value was 0.996 and the KMO and Bartlett's test value was 0.985, which proved that the questionnaire has good reliability and validity.

Reliability Statistics		KMO and Bartlett's Test		
Cronbach's Alpha	N of Items	Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.985
.996	61	Bartlett's Test of Sphericity	Approx. Chi-Square	29956.196
			df	1653
			Sig.	.000

Figure2: Reliability and Validity Testing



The factors were extracted by the maximum variance rotation method to estimate the loadings of the factors, and the factor analysis was conducted with the principle of extracting characteristic roots greater than 1. Three main factors were extracted, and the cumulative variance contribution was 86.355, which was greater than 60%; indicating that the questionnaire had good structural validity.

Table 2  
Total Variance Explained

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative%	Total	% of Variance	Cumulative%	Total	% of Variance	Cumulative%
1	47.630	82.120	82.120	47.630	82.120	82.120	17.273	29.780	29.780
2	1.384	2.387	84.507	1.384	2.387	84.507	16.440	28.344	58.124
3	1.072	1.848	86.355	1.072	1.848	86.355	16.373	28.230	86.355
4	.848	1.462	87.817						
5	.811	1.398	89.214						
6	.700	1.207	90.422						
7	.674	1.162	91.584						
8	.538	.927	92.511						
9	.462	.796	93.307						
10	.427	.736	94.043						
11	.291	.502	94.545						
12	.163	.282	94.826						
13	.143	.247	95.073						
14	.137	.237	95.310						
15	.135	.233	95.543						
16	.127	.220	95.763						
17	.123	.212	95.975						
18	.117	.201	96.176						
19	.115	.199	96.375						
20	.103	.178	96.552						
21	.099	.171	96.724						
22	.097	.167	96.891						
23	.095	.164	97.055						
24	.090	.155	97.211						
25	.087	.150	97.360						
26	.085	.146	97.507						
27	.082	.142	97.649						
28	.078	.134	97.783						
29	.074	.127	97.910						
30	.073	.126	98.036						
31	.068	.117	98.153						
32	.066	.114	98.268						
33	.064	.110	98.378						
34	.063	.109	98.487						
35	.061	.105	98.592						
36	.058	.100	98.692						

37	.057	.097	98.789						
38	.055	.094	98.884						
39	.052	.090	98.974						
40	.052	.089	99.063						
41	.048	.083	99.146						
42	.046	.080	99.226						
43	.041	.071	99.297						
44	.040	.069	99.366						
45	.037	.063	99.430						
46	.035	.060	99.490						
47	.033	.058	99.547						
48	.033	.056	99.604						
49	.031	.054	99.657						
50	.029	.050	99.707						
51	.028	.048	99.756						
52	.025	.044	99.799						
53	.023	.040	99.840						
54	.022	.037	99.877						
55	.021	.037	99.914						
56	.019	.033	99.947						
57	.017	.030	99.976						
58	.014	.024	100.000						

## Data Analysis

### Model Fit

Table 3

#### Model Fit Results

Observation Indicators	Evaluation Indicators	Value of This Model
$\chi^2/df$	<3(Good);<5(Accept)	1.83
RMSEA	<0.05(Good);<0.8(Accept)	0.059
SRMR	<0.05(Good);<0.8(Accept)	0.010
TLI	>0.9(Good);>0.8(Accept)	0.989
CFI	>0.9(Good);>0.8(Accept)	0.991

The structural equation model constructed was analyzed through the fit indicators, and the indicators showed that the model fit of this study was good, representing a better fit between the theoretical model and the actual data, and further analysis of the model standardization results was carried out.

### Standardization of Model Parameters

STD Standardization		Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
IV	BY				
	IV1	1.191	0.046	25.972	0.000
	IV2	1.144	0.046	24.928	0.000
	IV3	1.078	0.044	24.688	0.000
	IV4	1.220	0.047	26.106	0.000
DV	BY				
	DV1	1.092	0.050	21.777	0.000
	DV2	1.183	0.052	22.788	0.000
	DV3	1.214	0.050	24.196	0.000
	DV4	1.197	0.053	22.713	0.000
	DV5	1.191	0.044	26.883	0.000
	DV6	1.166	0.050	23.222	0.000
MV	BY				
	MV1	1.287	0.045	28.698	0.000
	MV2	1.289	0.044	29.050	0.000
DV	ON				
	IV	0.903	0.072	12.549	0.000
	MV	0.103	0.075	1.373	0.170
MV	ON				
	IV	0.934	0.011	88.093	0.000

Figure 3: STD Model Results

The analysis of the standardized model results showed that each topic of the independent variable virtual brand community citizenship behavior showed positive significance with a P-Value less than 0.01. each topic of the dependent variable brand relationship showed positive significance with a P-Value less than 0.01. each topic of the mediating variable impression management showed positive significance with a P-Value less than 0.01. virtual brand community citizenship behavior significantly affects brand relationship with an estimated value of 0.903 and a P-Value less than 0.01; virtual brand community citizenship behavior significantly affects impression management with an estimated value of 0.934 and a P-Value less than 0.01; however, the effect of impression management on brand relationship is not significant with a P-Value greater than 0.05 and an estimated value of 0.103.

### Intermediary Inspection

STD Standardization		Lower .5%	Lower 2.5%	Lower 5%	Estimate	Upper 5%	Upper 2.5%	Upper .5%
IV	BY							
	IV1	1.060	1.096	1.112	1.191	1.261	1.280	1.301
	IV2	1.022	1.047	1.067	1.144	1.217	1.227	1.255
	IV3	0.958	0.988	1.004	1.078	1.147	1.159	1.184
	IV4	1.100	1.133	1.143	1.220	1.297	1.311	1.338
DV	BY							
	DV1	0.960	0.999	1.013	1.092	1.172	1.189	1.213
	DV2	1.053	1.085	1.100	1.183	1.270	1.284	1.314
	DV3	1.079	1.119	1.137	1.214	1.296	1.309	1.331
	DV4	1.060	1.093	1.108	1.197	1.284	1.300	1.323
	DV5	1.078	1.106	1.122	1.191	1.268	1.281	1.302
	DV6	1.027	1.067	1.087	1.166	1.251	1.267	1.299
MV	BY							
	MV1	1.158	1.197	1.213	1.287	1.358	1.369	1.394
	MV2	1.166	1.207	1.220	1.289	1.364	1.380	1.400
DV	ON							
	IV	0.750	0.783	0.802	0.903	1.039	1.062	1.124
	MV	-0.162	-0.069	-0.039	0.103	0.208	0.226	0.259
MV	ON							
	IV	0.904	0.913	0.917	0.934	0.950	0.953	0.960

Figure 4: Intermediary Inspection STD

The principle of Bootstrapping was studied in the work of Tibshirani and Efron (1993); Mooney et al (1993) also argued for the Bootstrapping method through their study, Bootstrapping's The principle of Bootstrapping is that when the assumption of normal distribution does not hold, the empirical sampling distribution can be used as the actual overall distribution for parameter estimation. Bootstrapping uses the study sample as the overall sampling, and uses put-back sampling, where a certain number of samples are repeatedly taken from the study sample, and the parameters obtained by averaging each sampling are used as the final estimation results.

Biesanz et al (2010) found the scientific validity and accuracy of Bootstrapping for mediating effects testing in their study, and as Bootstrapping becomes more widely known and implemented, we will undoubtedly see more studies comparing these methods. Currently, there is evidence to support our claim that the Bootstrapping method we describe here is better than methods that assume symmetry or normality in the sampling distribution of indirect effects (Preacher & Hayes, 2008). In this study, the Maximum Likelihood Estimate method was used to invert the parameter values most likely (with maximum probability) to lead to such an outcome using known sample results with a sampling size of 1000, and the standardized results of Bootstrapping were calculated showing that the value of impression management to brand relationship was -0.039 to 0.259 at 95% confidence interval, indicating the absence of mediating effects.

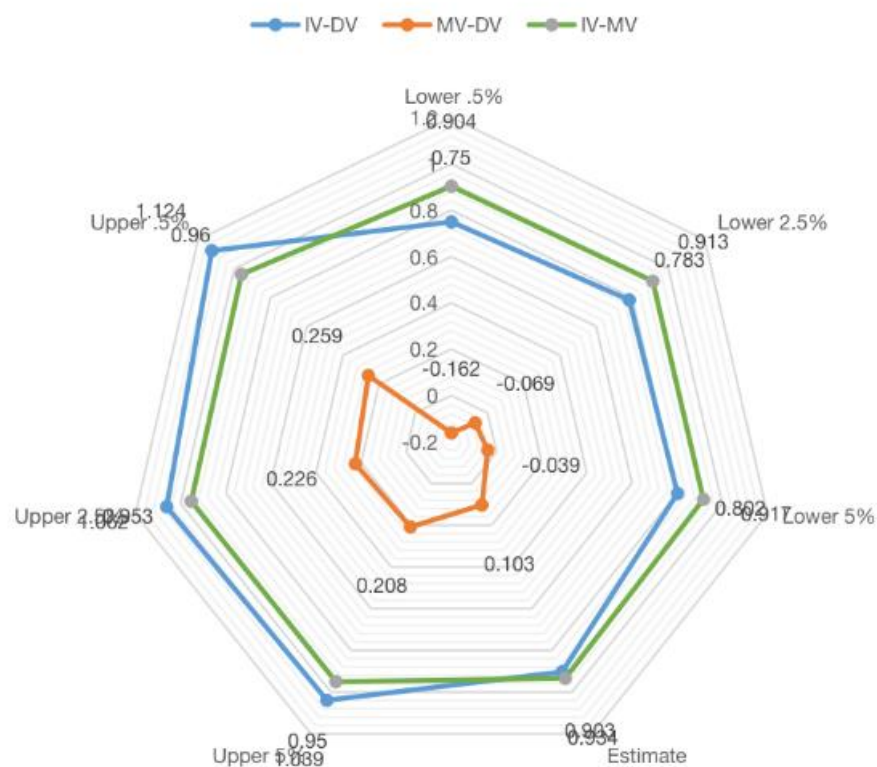


Figure 5: Bootstrap Confidence Interval

Therefore, impression management does not play a mediating role in the influence of virtual brand community citizenship behavior on brand relationships, and the hypothesis of this study is not valid.

### Path Significance Report

The path analysis diagram of the structural equation model is as follows. The virtual brand community citizenship behavior has a positive and significant impact on both impression management and brand relationship; however, impression management does not have an impact on brand relationship.

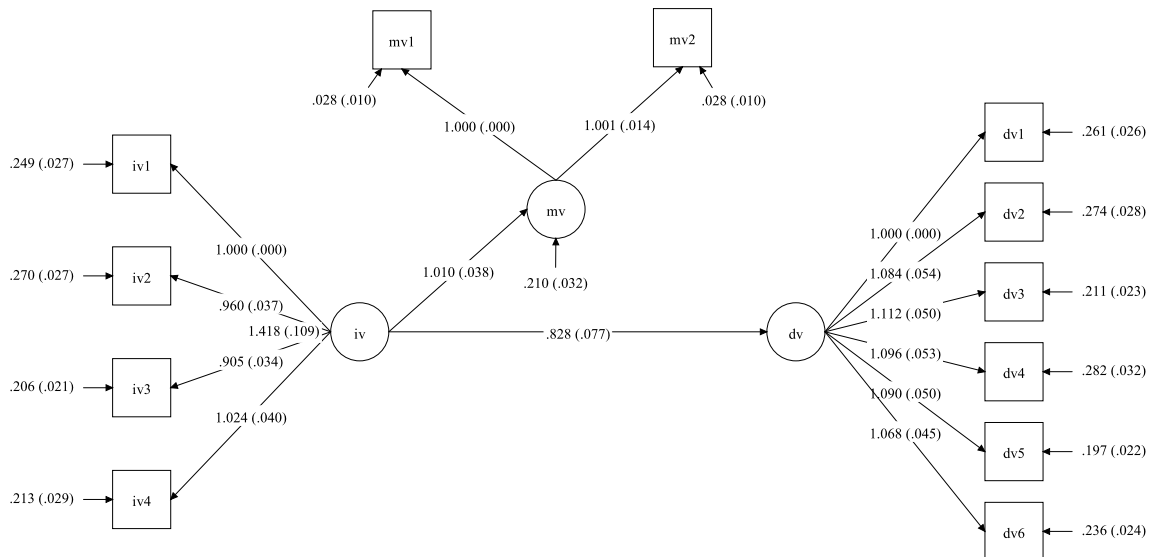


Figure 6: Path Significance

### Conclusion and Recommendation

#### Conclusion

Based on the results of the data analysis of the empirical study, it can be concluded that citizenship behavior within the brand community has a positive impact on brand relationships and positively affects impression management. However, impression management does not play a mediating role. This indicates that citizen behavior deliberately using impression management in virtual brand communities cannot enhance brand relationships, and therefore, more attention should be paid to the influence of citizen behavior on brand relationships in brand community management. This research finding has important reference value for brand community management and marketing strategy development.

#### Recommendation

##### False Impression Management Can Undermine the Integrity and Credibility of a Brand Community

Within a brand community, citizens should behave honestly and trustworthy and should not use false impression management to deceive consumers or gain undue benefits. The successful establishment and development of a brand community requires the trust and support of consumers, and false impression management will not only cause consumers to lose trust in the brand, but also affect the reputation and image of the brand community, thus affecting the long-term development and market competitiveness of the brand.

##### False Impression Management Can Affect the Reputation and Social Image of Citizen Actors.

In a brand community, citizen actors represent not only individuals, but also the brand community and the brand itself. If citizen actors use false impression management to gain

undue benefits, it will not only harm the interests of consumers, but also affect the image and reputation of the citizen actors themselves, thus affecting their status and influence in the brand community.

Therefore, citizens within brand communities should abide by the principle of honesty and trustworthiness and insist on using authentic impression management practices to maintain the credibility and image of brand communities, enhance consumer trust and loyalty, and thus promote the long-term development and market competitiveness of brands. Companies and researchers need to seriously explore the impact of false luxury videos and content on the citizen behavior of brand communities and develop more scientific and feasible brand marketing strategies and brand community management norms to ensure the healthy and sustainable development of brand communities. At the same time, there is a need to strengthen the regulation and punishment of consumers' false behaviors and promote consumers' conscious compliance with brand community citizenship behaviors, so as to jointly maintain the good image and reputation of brand communities.

### **Limitation and Prospect**

#### **Limitation**

Because the progressive development of connected social media has also brought about many false impression management behaviors in virtual brand communities, this study focuses its research on impression management and does not explore other mediating variables between citizen behaviors and brand relationships within brand communities in order to gain a deeper understanding of the internal mechanisms of such relationships. The cross-sectional data used in this study has some limitations.

#### **Prospect**

In the future, the authors will delve into the following areas: comparing the relationship between brand community citizenship behaviors and brand relationships in different cultural contexts from a cross-cultural perspective in order to better understand the impact of brand community citizenship behaviors in different cultural contexts. To study the impact of brand community citizenship behaviors on brand trust and brand loyalty in order to help brand managers better grasp the role and value of citizenship behaviors in brand communities. At a practical level, citizenship behaviors within brand communities are encouraged to be authentic and honest and to reduce the practice of false impression management in order to build healthier and more stable brand communities.

#### **Reference**

- Afshar, A., Polas, R. H., Imtiaz, M., & Saboor, A. (2019). Customer care service management is moving forward to achieve sustainable customer retention in every industry. Does it play a role to increase brand retention. *International Journal of Management*, 8(2), 88-97.
- Biesanz, J. C., Falk, C. F., & Savalei, V. (2010). Assessing Mediation Models: Testing and Interval Estimation for Indirect Effects. *Multivariate Behavioral Research*, 45(4), 661-701. <https://doi.org/10.1080/00273171.2010.498292>
- Bolino, M. C., & Turnley, W. H. (1999). Measuring Impression Management in Organizations: A Scale Development Based on the Jones and Pittman Taxonomy. *Organizational Research Methods*, 2(2), 187-206.

- Qijie, C., & Yongsheng, M. (2002). A new perspective on brand relationship management: brand experience management. *Business and Management Journal* (04),31-38.
- Xun, H. J. (2006).Brand Relationship Quality: The Establishment and Validation of an Indigenous Model in China.*Journal of East China Normal University (Humanities and Social Sciences)*, 38(3),7.
- Hsieh, P.-L.(2017).Factors Influencing Consumer-Brand Relationships from the Perspective of Online Brand Communities.*Scientific Journal of E-Business*,19(2),117-145.
- Ruo Chen, J. X. D. (2012).The Concept and Scale Development of Citizenship Behavior of Virtual Brand Community.*Soft Science*,26(10),5.
- Leary, M. R., & Kowalski, R. M. (1990). Impression Management: A Literature Review and Two-Component Model. *Psychological Bulletin*,107(1),34-47.
- Mooney, C. Z., Mooney, C. F., Duval, R. D., Mooney, C. L., & Duvall, R. (1993). *Bootstrapping: A nonparametric approach to statistical inference*. Sage.
- Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior research methods*, 40(3),879-891.
- Polas, M. R. H., Juman, M. K., Karim, A. M., Tabash, M. I., & Hossain, M. I. (2020). Do service quality dimensions increase the customer brand relationship among Gen Z? The mediation role of customer perception between the service quality dimensions (SERVQUAL) and brand satisfaction. *International Journal of Advanced Science and Technology*, 29(4), 1050-1070.
- Royo-Vela, M., & Casamassima, P. (2011).The influence of belonging to virtual brand communities on consumers' affective commitment, satisfaction and word-of-mouth advertising The ZARA case.*Online Information Review*,35(4),419-432.
- Quan, S. Z., Wei, J. Y., Fei, W. (2010). An empirical study of the impact of virtual brand community experiences on community members' brand identity.*Management Review*, 22(12),79-88.
- Xue, S. (2020).*An empirical study of university students' TikTok impression management* [Master thesis,Zhengzhou University].
- Tibshirani, R. J.,& Efron, B. (1993). An introduction to the bootstrap.*Monographs on statistics and applied probability*,57(1).
- Long, W. L., Bo, W. (2015).A study on the influence mechanism of virtual brand community on brand relationship-the example of Xiaomi community.*Journal of Management Case Studies*,8(01),71-83.
- Jiang, X. C., Ying, Y. L. (2015). Sense of Virtual Community and Intension of Sharing Knowledge: Mechanisms of Virtual Community Organization Citizenship Behavior and Self-efficacy.(4),923-927.