

# HOW NANO-INFLUENCERS CITIZENSHIP BEHAVIOR AFFECT THEIR STICKINESS TO THE SOCIAL COMMERCE PLATFORM? THE ROLES OF PERCEIVED VALUE

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## Abstract

Nano-influencers, defined as Social Media Influencers (SMIs) with fewer than 1000 followers, occupy a unique position in social commerce, attributable to their remarkably high levels of audience engagement. This study explores their citizenship behaviors and its impact on shaping perceptions of value. To investigate the relationship between Nano-influencers' Citizenship Behavior (NICB), perceived value, and their stickiness to the social commerce platform (SCP), this study employs a multi-dimension approach. Data were collected from 393 nano-influencers in China who had formed partnerships with at least one SCP. Analysis was conducted via Partial Least Squares Structural Equation Modeling (PLS-SEM). Findings suggest a positive effect between NICB and perceived value, and that NICB directly impacts nano-influencers' stickiness to the SCP. In addition, nano-influencers' stickiness to the SCP is directly influenced by both utilitarian and emotional value, and these factors partially explain the relationship between NICB and stickiness to the SCP. However, social value and epistemic values do not have an impact on stickiness to the SCP, nor do they mediate the relationship between NICB and stickiness to the SCP. The study enhances the theoretical understanding of nano-influencers' impacts on social commerce platforms (SCPs) by utilizing value co-creation theory to elucidate the mechanisms influencing SCP stickiness. Additionally, it provides practical insights for industry professionals aiming to augment nano-influencer engagement and loyalty through carefully designed strategic initiatives.

**Keywords:** Nano-influencers' citizenship behavior, utilitarian value, emotional value, social value, epistemic value, Stickiness to the SCP

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## **1. INTRODUCTION**

Nano-influencers, a subgroup of SMIs, are newcomers in influencer marketing, commonly characterized as individuals who possess a follower count of fewer than 1,000 (Berne-Manero & Marzo-Navarro, 2020). Their behaviors have been attracting more and more attention from industry professionals and researchers (Conde & Casais, 2023; Himelboim & Golan, 2023). Specifically, these behaviors go beyond the expected role and provide exceptional value to the firm (Yi et al., 2013). This is known as Nano-influencer citizenship behavior (hereafter referred to as NICB). Examples of such behavior include offering suggestions to enhance the service experience (Doorn et al., 2010), sharing self-portraits with a specific item (Ashley & Tuten, 2015), and providing product experience reviews, all of which facilitate the realization of co-promotion (Eisingerich et al., 2014). Despite the growing interest in NICB, research on its effects remains limited (Roy et al., 2019). This study aims to fill this gap by investigating the outcomes of nano-influencers' behaviors.

NICB determines perceptions and responses based on social psychology's self-perception theory (Yen et al., 2022). Such perceptions are prominent in business transactions, where benefits and costs (value) are traded. Therefore, Nano-influencers' perceived value may be a key factor in NICB. Due to the multidimensionality of Nano-influencers' perceived value, this study adopts Sheth et al.'s (1991) framework, which includes utilitarian, emotional, social and epistemic value in social commerce settings. As a result of Nano-influencers' perceived value, the conceptual model includes Nano-influencers' stickiness to the SCP.

Nano-influencers are deemed as a cost-effective and efficient approach to reaching a substantial number of followers (Rafki et al., 2021), with a high probability of converting into paying customers (Fainmesser & Galeotti, 2021). Hence, nano-influencers are increasingly favored by small and medium-sized enterprises or start-ups (Proserpio et al., 2020). However, little research has been conducted on the reasons behind nano-influencers' continuous use of a specific SCP, stemming from their behaviors. Prior research has examined many factors that influence stickiness of the SCP, such as social commerce feature richness (Friedrich et al., 2019), online interactions (Qu et al., 2023), and community factors (Molinillo et al., 2020). AlFarraj et al. (2021) found that SMIs' commitment to a platform is influenced by their reputation, encompassing their physical attractiveness, trustworthiness, and expertise. These characteristics not only amplify their impact but also lead them to favor long-term collaboration with a certain platform in order to uphold their reputation and professional image. Enabling nano-influencers to engage in content development and community management on platforms can greatly enhance their degree of engagement and loyalty to the SCP (Assiouras et al., 2019). This strategy allows nano-influencers to more effectively satisfy their desires for self-expression and social connection, ultimately reinforcing their reliance on and commitment to the platform. Moreover, existing research on SMIs or nano-influencers in social commerce has primarily focused on their impact on customers' purchasing behavior and loyalty (Jun & Yi, 2020) from perspectives of SMIs attributes (Gomes et al., 2022) or the contents they generate (Romero-Rodriguez & Castillo-Abdul, 2023). Nevertheless, there is a lack of empirical studies on the impacts of nano-influencers on stickiness to the SCP.

This study examined nano-influencers in China due to the distinct features of social commerce in that country, where online social interactions and online shopping are harmoniously integrated. Platforms such as WeChat allow people to buy things in real-time while they are socializing. This has turned social commerce into more than just a way to shop, but also a cultural phenomenon that is heavily influenced by trust and community awareness. These factors have a significant effect on how consumers make decisions about what to buy (Li et al., 2018; Zhang et al., 2017). Chinese customers rely more heavily on social recommendations and online word-of-mouth compared to Western markets. This amplifies the

impact of nano-influencers, who are able to build strong trust relationships within their follower groups (Chen et al., 2019). In China, SCPs make extensive use of interactive marketing strategies, including live-stream selling and collaborations with key opinion leaders (KOLs). These strategies rely on the personal charm and expertise of nano-influencers to attract and retain user engagement (Hu et al., 2020). In short, China's unique environment provides an excellent opportunity to examine nano-influencers in the field of social commerce.

This study provides significant contributions to the existing literature on value co-creation behavior by explaining the extra-role behavior exhibited by nano-influencers. Additionally, it empirically confirms the impact of NICB on every sub-dimension of perceived value (utilitarian, emotional, social, and epistemic values) in social commerce. The impact of co-creation behavior on sub-dimensions of perceived value has been insufficiently examined (Anshu et al., 2022; Meng & Cui, 2020).

This study aims to examine how NICB affects perceived value (with four subdimensions), which further leads to their stickiness to the SCP with the following two questions: (1) How does NICB affect utilitarian, emotional, social and epistemic values? (2) How do nano-influencers utilitarian, emotional, social and epistemic values affect their stickiness to the SCP? To examine these questions, a research framework is constructed based on the current literature. An online survey was adopted to collect data from nano-influencers in major Chinese cities through random sampling. Survey responses were quantified using a five-point Likert scale. The data were analyzed with PLS-SEM to ensure the reliability and validity of the findings and then validated using data collected from nano-influencers involved in social commerce in China.

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

### **2.1 Theoretical Background**

Nano-influencers' Citizenship Behavior (NICB) is derived from Customer Citizenship Behavior (CCB). To better understand and validate the multifaceted contributions of nano-influencers in the social commerce landscape, this paper identifies six dimensions for a more comprehensive examination of NICB in the context of social commerce. These dimensions include feedback, advocacy, helping, and tolerance (Yi et al., 2013), along with demonstrating relationship affiliation and participating in the SCP's activities (Omar et al., 2020). In order to enhance our comprehension of their role and impact, this approach aims to provide a thorough analysis of nano-influencers' contributions. Currently, nano-influencers provide feedback by offering comments or recommendations on the SCP's products or services received from customers, which benefits the SCP (Yen et al., 2022). They engage in advocacy by promoting the SCP or its products to acquaintances, including friends, family members, and other influential individuals. Nano-influencers also help by providing support to customers or other influential individuals facing complex issues beyond basic assistance. They exhibit tolerance by remaining patient during service failures. Additionally, they display affiliation with the SCP by showcasing its logo or branding on their bodies or personal belongings. Furthermore, nano-influencers participate in the SCP's activities by engaging in company-sponsored events and organizational activities.

In the context of social commerce, stickiness is a key factor in profitability for a company (Laczko et al., 2019). It may refer to a website's ability to attract and retain customers (Friedrich et al., 2019; Hu et al., 2020) who visit the site repeatedly and spend more time browsing compared to the average customers (Hu et al., 2020). As customers spend more time on a preferred website, the probability of them making purchases increases (Hu et al., 2020). However, Nemzow (1999) argued that the average browsing length may not accurately reflect

purchase behavior or customer loyalty, but website visits only. Therefore, Mohamed, Moez, and Vanessa (2002) defined stickiness as the tendency to purchase certain products or services repeatedly. In this study, we define stickiness as the inclination of nano-influencers to revisit the SCP, to keep sharing its products, and to invest more time in it (Li et al., 2021).

This study defines perceived value as the comprehensive evaluation that a nano-influencer conducts regarding the utility of a social commerce site, relying on their perceptions of the benefits they receive and the costs they incur (Molinillo et al., 2021). Prior research has identified functional value, epistemic value, conditional value, social value, and emotional value as dimensions of perceived value (Sheth et al., 1991). In this study, we have chosen to exclude conditional value from our conceptual framework, as it arises as a result of social value (Sweeney & Soutar, 2001). Furthermore, functional value is substituted with utilitarian value. The term utilitarian value is employed to recognize and highlight the varied and practical advantages that SCPs provide to nano-influencers, surpassing the conventional concepts of functional value. This study also includes the concept of epistemic value for both theoretical and practical purposes. It recognizes that individuals who possess expertise and knowledge have a greater ability to influence customer attitudes and behaviors (AlFarraj et al., 2021). Hence, the suggested understanding of nano-influencers' perceived value regarding SCPs includes four aspects: utilitarian value, emotional value, epistemic value, and social value.

## **2.2 The relationship between NICB and Nano-influencers Stickiness to the SCP**

NICB has the potential to enhance the long-lasting relationship between an organization and its customers (Yi et al., 2011). This is evident from the fact that when customers actively participate in citizenship behavior, they perceive their connection with the enterprise as meaningful and make deliberate efforts to maintain it (Kim et al., 2020). Moreover, customers who actively participate in citizenship behavior are more likely to exhibit loyalty behaviors, particularly when the products or services offered by a company effectively cater to their requirements (Assiouras et al., 2019). Given the resemblance between customers and influencers, it can be assumed that the active engagement of nano-influencers with SCP employees and customers is likely to result in a tendency to maintain a relationship with the SCP. This active involvement is expected to foster stickiness towards the SCP. Therefore, the following hypothesis is posited:

H1. NICB has a positive impact on the stickiness to of the SCP.

## **2.3 The Relationship between NICB and Subdimensions of Perceived Value**

Kim and Tang (2020) found that Value Co-creation Behaviors (VCB) have a positive impact on customers' perceived value. In essence, active participation in co-creation activities enhances nano-influencers' perceived value by providing a unique consumption experience (Solakis et al., 2022). CCB, as a form of VCB, has been empirically shown to increase perceived value (Tran & Vu, 2021; Xu et al., 2021). For example, the SCP may improve nano-influencers' emotional value-behavior relationship (Jiang et al., 2019). This engagement will lead to feelings of affiliation and social value (Van den Broeck et al., 2010). Therefore, the following hypotheses are put forward:

H2a. NICB has a significant positive impact on Utilitarian Value.

H2b. NICB has a significant positive impact on Emotional Value

H2c. NICB has a significant positive impact on Social Value.

H2d. NICB has a significant positive impact on Epistemic Value.

## 2.4 The Relationship between Subdimensions of Perceived Value and Nano-influencers Stickiness to the SCP

Utilitarian value in marketing refers to the customer's evaluation of whether a particular need has been satisfied through the shopping behavior performed (Babin et al., 1994). Its impact on consumers' intentions to continue purchasing smartwatches (Saygılı & Yalçintekin, 2021) or stickiness to mobile service providers (Oghuma et al., 2016) has been well proven. In the context of online shopping, the continuous influence of perceived utilitarian value affects online shoppers' repurchase decisions (Ceyhan, 2019).

Emotional value refers to the perceived usefulness obtained from the emotions or affective states generated when promoting products or services offered by SCPs (Sweeney & Soutar, 2001). Emotional value can produce a direct impact on loyalty in various fields, such as tourism (Senić & Marinković, 2014), service marketing (Senić & Marinković, 2014), traditional markets (Asmayadi & Hartini, 2015), and the automobile industry (Hassan & Moosa, 2015). However, the study conducted by Wang and Prompanyo (2020) revealed that emotional value had minimal influence on customer loyalty.

Social value refers to the perceived usefulness of endorsing products or services on an SCP's ability to satisfy nano-influencers' desire for recognition or social esteem (Sweeney & Soutar, 2001). It can boost brand community belonging and loyalty in social commerce (Ceyhan, 2019). Nano-influencers are more inclined to endorse and invest more in a brand with greater social value (Pihlström & Brush, 2008). However, social value was found not to be positively related to customer loyalty (Rahayu et al., 2020).

Epistemic value is a SCP's perceived usefulness in sparking nano-influencers' curiosity, provide novelty, and satisfy their knowledge-seeking tendencies (Sheth et al., 1991). Nano-influencers' loyalty to a brand remains steadfast (Wong et al., 2019) as long as they actively pursue new information about the brand or its offerings (Khan & Mohsin, 2017). However, no significant impact of epistemic value on brand loyalty was found by Hassan and Moosa (2015).

Therefore, hypotheses H3a to H3d are proposed as follows:

H3a. Utilitarian Value has a positive effect on stickiness to the SCP.

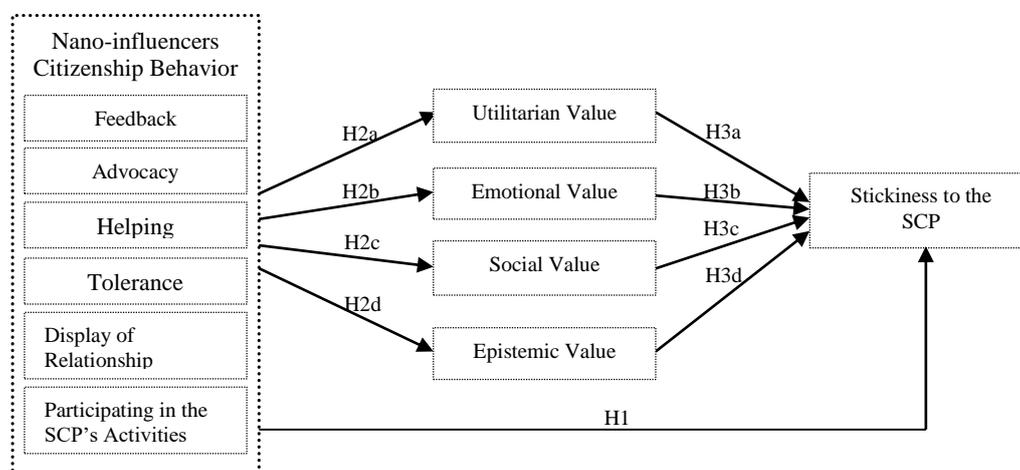
H3b. Emotional Value has a positive effect on stickiness to the SCP.

H3c. Social Value has a positive effect on stickiness to the SCP.

H3d. Epistemic Value has a positive effect on stickiness to the SCP.

A conceptual model was constructed based on the previous discussion in Figure 1.

**Figure 1** Research Conceptual



### **3. RESEARCH METHODOLOGY**

This study aims to examine how NICB affects perceived value (with four subdimensions), which further leads to their stickiness to the SCP. The questionnaire utilized in the current study consisted of two sections: Part One comprised demographic data and details about the nano-influencer respondents, such as gender, age, occupation, and frequency of sharing products. Part Two consisted of the variable measurements. The scale of NICB was sub-divided into Feedback (3 items), Advocacy (3 items), Helping (4 items), and Tolerance (3 items), which were adapted from Yi and Gong (2013), along with Displays of Relationship Affiliation (2 items), and Participation in the SCP's Activities (3 items) from Bove et al. (2009). Utilitarian value (4 items) was modified from Babin et al. (1994); while emotional value (5 items), social value (4 items), and epistemic value (4 items) were modified from Sweeney and Soutar (2001). Stickiness (3 items) was adapted from the scale developed by Zhang et al. (2019). Because items were derived from different works with different contexts, the majority of items were modified to align with the specific context of this study to ensure content validity. The 5-point Likert scale was chosen due to its convenience in providing a mid-scale (3 = neutral) that distinguishes positive and negative responses (Kim et al., 2023).

Questionnaires were disseminated during October 2023 via WeChat, a prominent SMP in China, using the 'Questionnaire Star' online survey platform, which is widely favored in the country. This study focused on nano-influencers with fewer than 1,000 followers. According to Hair et al. (2019), the sample size for structural model analysis should be at least ten times the observable variables. Therefore, the sample size for this study should be at least 380 respondents due to there being 38 observable variables. A total of 424 responses were received. After eliminating 34 responses from individuals who had not ordered in the past month, had over 1,000 followers, or currently resided outside China, 393 valid responses remained. Therefore, a sample size of 393 was used in this study which is considered adequate.

The model evaluation was conducted using the PLS-SEM technique, utilizing SmartPLS v.3.2.6 software (Ringle et al., 2015). The PLS-SEM was employed over covariance-based Structural Equation Modeling (SEM) for several reasons. Firstly, PLS offers a variance-centric, predictive SEM approach that is well-suited for handling complex models (Rasoolimanesh & Ali, 2018; Sarker & Khayer, 2021), especially in the context of marketing management (Hair et al., 2012), aligning effectively with the research objectives. Secondly, PLS-SEM is well-suited for evaluating indicators that contain multiple components or facets of a construct, rather than just a single latent variable (Hair et al., 2019). In this conceptual framework, the indicators of nano-influencers' citizenship behavior – Feedback, Advocacy, Helping, Tolerance, Displays of Relationship Affiliation, and Participation in the SCP's Activities – are more effectively measured as components, rather than as distinct factors. Thirdly, PLS-SEM does not require large sample sizes and does not assume the data follows a normal distribution (Hair et al., 2017; Hair et al., 2019).

In line with the prescribed analytical approach advocated by Anderson and Gerbing (1988), the analysis comprised two sequential stages. Firstly, an assessment of the measurement model was conducted, evaluating the validity and reliability of the measures employed. Subsequently, an examination of the structural model was implemented, verifying the hypothesized relationships as outlined in prior research (Hair et al., 2017). Additionally, to ascertain the significance of the path coefficients and loadings, a bootstrapping technique involving 5000 resamples was also conducted, following the methodology recommended by Hair et al. (2017).

### **4. RESULTS**

Among the study participants, 85.24% were female, 34.35% were aged between 30 and

39 years of age, and 66.42% had received a college education or above. Regarding work, 35.37% were office workers, while 19.59% were government officers. The majority of respondents (69.97%) were cooperating with one SCP, while 47.07% reported visiting the SCP multiple times a day, and another 32.06% visited once a day. The majority (68.7%) had been nano-influencers promoting products on the SCP for over a year.

**Table 1** Model Measurement

Constructs and Items	Factor Loading	CR	AVE	$\alpha$
<b>Feedback(F)</b>		.919	.790	.867
F1: If I have a useful idea on how to improve service, I let the employee know.	.879			
F2: When I receive good service from the employee, I comment about it.	.906			
F3: When I experience a problem, I let the employee know about it.	.881			
<b>Advocacy(A)</b>		.929	.814	.886
A1: I say positive things about the SCP and its service to customers or other influencers.	.910			
A2: I recommended the SCP and its products/services to customers or peers.	.899			
A3: I encouraged friends, relatives or other customers to purchase, or peers to be an influencer on the SCP.	.897			
<b>Helping(H)</b>		.917	.734	.879
H1: I help customers or peers if they need my help with the SCP's products/services.	.866			
H2: I help customers or other influencers if they seem to have problems with the SCP's products/services.	.841			
H3: I teach customers or other influencers to use the SCP's products/services correctly.	.854			
H4: I give advice to customers or peers on the SCP's products/services.	.866			
<b>Tolerance(T)</b>		.910	.772	.852
T1: If the SCP's products or services are not delivered as expected, I would be willing to put up with it.	.868			
T2: If the SCP makes a mistake during service delivery (e.g., Mismatch between title and the actual product being sold), I would be willing to be patient.	.894			
T3: If I have to wait longer than I normally expect to receive the service (e.g., Products failed to be launched on schedule), I would be willing to adapt.	.874			
<b>Displays of Relationship Affiliation (DRA)</b>		.911	.837	.806
DRA1: I would wear products sold on the SCP in public and share it via social media.	.917			
DRA2: I would use products sold on the SCP in my daily life and share it via social media.	.913			
<b>Participation in the SCP's Activities (PA)</b>		.923	.799	.874
PA1: I would try out new products being wholly or partially sponsored by the SCP.	.895			
PA2: I would attend events (e.g., visiting brands on-site) organized	.893			

**Table 1** (Continued)

Constructs and Items	Factor Loading	CR	AVE	$\alpha$
by the SCP, or being sponsored by brands in partnership with the SCP.				
PA3: I would attend functions (e.g., online training, temporary hot-sale-items oriented communities) held by the SCP.	.893			
<b>Stickiness (ST)</b>		.923	.800	.875
ST1: I will spend more time in the SCP.	.885			
ST2: I will invest more of my talents into the SCP.	.909			
ST3: I will contribute more ideas to the SCP.	.889			
<b>Utilitarian Value (UV)</b>		.923	.749	.888
UV1: Participating in the SCP's marketing activities offers value for money.	.858			
UV2: Participating in the SCP's marketing activities is beneficial to me.	.844			
UV3: Participating in the SCP's marketing activities is worthwhile to me.	.891			
UV4: Overall, participating in the SCP's marketing activities delivers good value.	.868			
<b>Emotional Value (EMV)</b>		.927	.718	.902
EMV1: Promoting the SCP's products through social media is interesting.	.867			
EMV2: Promoting the SCP's products through social media is enjoyable and satisfying.	.851			
EMV3: I feel relaxed when I use social media to promote the SCP's products.	.859			
EMV4: I feel good when I use social media to promote the SCP's products.	.818			
EMV5: Promoting the SCP's products through social media is a delightful experience.	.842			
<b>Social Value (SV)</b>		.920	.742	.885
SV1: Sharing my experiences with the SCP on social media helps me to feel acceptable.	.861			
SV2: Sharing my experiences with the SCP on social media improves the way I am perceived.	.881			
SV3: Sharing my experiences with the SCP on social media makes a good impression on other people.	.855			
SV4: Sharing my experiences with the SCP on social media helps me gain social approval.	.850			
<b>Epistemic Value (EPV)</b>		.921	.745	.887
EV1: The reason that I promote the SCP through social media is to learn various skills of marketing.	.873			
EV2: The reason that I promote the SCP through social media is to learn new knowledge about the products.	.864			
EV3: Promoting the SCP through social media makes my life different.	.866			
EV4: I like to read related material found during the process of promoting the SCP through social media.	.850			

Note.  $\alpha$  = Cronbach's alpha; AVE = average variance extracted; CR = composite reliability.

The construct reliability and validity scores are shown in Table 1. All constructs had statistically significant factor loading values above the recommended .70 (Hair et al., 2017). Additionally, the average variance extracted (AVE) values of all constructs exceeded .50, indicating convergent validity (Fornell & Larcker, 1981; Hair et al., 2017). The measures' composite reliability values ranged from .910 to .929, and their Cronbach's alphas were between .806 and .902, indicating strong scale reliability. The square root of the AVE for each construct surpassed the corresponding inter-correlations (Fornell & Larcker, 1981), as shown in Table 2, while all heterotrait-monotrait ratio of correlations (hereinafter as HTMT) values remained below .9, confirming the discriminant validity.

**Table 2** Fornell-Larcker Criterion and HTMT Ratios

	<b>Advo- cacy</b>	<b>PA</b>	<b>DRA</b>	<b>EMV</b>	<b>EPV</b>	<b>Feedback</b>	<b>Helping</b>	<b>ST</b>	<b>Tolerance</b>	<b>UV</b>	<b>SV</b>
<b>Advocacy</b>	<b>.902</b>	.477	.505	.422	.411	.527	.438	.434	.516	.306	.344
<b>PA</b>	.420	<b>.894</b>	.492	.307	.402	.477	.487	.382	.500	.314	.364
<b>PRA</b>	.427	.413	<b>.915</b>	.374	.411	.551	.434	.401	.388	.290	.375
<b>EMV</b>	.378	.273	.319	<b>.848</b>	.340	.344	.346	.389	.388	.361	.324
<b>EPV</b>	.366	.356	.350	.307	<b>.863</b>	.359	.347	.363	.395	.453	.448
<b>Feedback</b>	.462	.416	.461	.308	.317	<b>.889</b>	.504	.421	.483	.304	.322
<b>Helping</b>	.388	.428	.366	.308	.307	.441	<b>.857</b>	.340	.517	.373	.388
<b>ST</b>	.382	.334	.338	.349	.324	.367	.298	<b>.894</b>	.363	.423	.332
<b>Tolerance</b>	.448	.433	.321	.342	.347	.416	.449	.314	<b>.879</b>	.355	.314
<b>UV</b>	.273	.279	.245	.326	.400	.267	.332	.377	.311	<b>.865</b>	.379
<b>SV</b>	.309	.323	.319	.289	.402	.284	.345	.294	.275	.337	<b>.862</b>
<b>R<sup>2</sup></b>	.536	.518	.414	.196	.219	.546	.554	.272	.509	.157	.183
<b>Q<sup>2</sup></b>	.434	.411	.343	.14	.161	.428	.402	.22	.389	.117	.134

*Note.* HTMT = heterotrait–monotrait; DRA = Displays of Relationship Affiliation; EMV = Emotional Value; EPV = Epistemic Value; PA = Participation in the SCP's Activities; ST = Stickiness; SV = Social Value; UV = Utilitarian Value. The diagonal factors highlighted in bold represent the square roots of the constructed AVE values. The HTMT ratios are located above the bold diagonal, while the estimated correlations are located below the bold diagonal.

Following this procedure, the structural model was evaluated. The Standardized Root Mean Square Residual (SRMR) should not exceed 0.10 when evaluating model fit (Henseler et al., 2016). With an SRMR of 0.085, the model is shown to fit well. Furthermore, we evaluated the model's predictive power by assessing the  $R^2$  and  $Q^2$  values of the predictor variables. The results shown in Table 4 indicate that all  $R^2$  values exceeded the .10 cutoff (Falk & Miller, 1992). Additionally, all Stone-Geisser's  $Q^2$  values for the intrinsic constructs were positive, surpassing 0. This supports the model's predictive capabilities (Hair et al., 2017).

Table 3 presents the calculated route coefficients for the modeled relationships. As stated in hypothesis H1, NICB affects stickiness to the SCP ( $\beta = .292, p \leq .001$ ), establishing H1. The H2a to H2d hypotheses are supported by NICB's significant results regarding utilitarian value ( $\beta = .399, p \leq .001$ ), emotional value ( $\beta = .445, p \leq .001$ ), social value ( $\beta = .43, p \leq .001$ ), and epistemic value ( $\beta = .47, p \leq .001$ ). Hypothesis H3a, utilitarian value's impact on nano-influencers' stickiness to the SCP was shown to be significant ( $\beta = .179, p \leq .001$ ), supporting H3a. Emotional value was found to influence nano-influencers' stickiness to the SCP, supporting H3b ( $\beta = .129, p \leq .05$ ). However, hypothesis H3c was rejected as social value did not significantly affect nano-influencers' stickiness to the SCP ( $\beta = .049, p > .05$ ). Hypothesis H3d is rejected as epistemic value does not significantly impact nano-influencers'

stickiness to the SCP ( $\beta = .056, p > .05$ ).

**Table 3** Structural Model Results

Hypothesis	Path	Effect	t Value	Remarks
H1	NICB→ ST to the SCP	.292***	5.388	Supported
H2a	NICB→UV	.399***	9.347	Supported
H2b	NICB→EMV	.445***	11.011	Supported
H2c	NICB→SV	.43***	10.268	Supported
H2d	NICB→EPV	.47***	11.496	Supported
H3a	UV→ST to the SCP	.179***	3.524	Supported
H3b	EMV→ST to the SCP	.129***	2.621	Supported
H3c	SV→ST to the SCP	.049	.946	Rejected
H3d	EPV→ST to the SCP	.056	1.058	Rejected

**Table 4** Mediation Hypothesis Testing Results

Model	Indirect Effect	95% Confidence Interval		Remarks
		Lower Boot	Upper Boot	
H4a NICB→UV→NIs stickiness to the SCP	.072***	.032	.116	Supported
H4b NICB→EMV→NIs stickiness to the SCP	.057**	.014	.101	Supported
H4c NICB→SV→NIs stickiness to the SCP	.021	-.023	.066	Rejected
H4d NICB→EPV→Nis stickiness to the SCP	.026	-.024	.074	Rejected

Note. NICB = Nano-influencers Citizenship Behavior; UV = Utilitarian Value; EMV = Emotional Value; SV = Social Value; EPV = Epistemic Value; ST = Stickiness; Nis = Nano-influencers; SCP = Social Commerce Platform. \*\* $p \leq .01$ ; \*\*\* $p \leq .001$

The product-of-coefficients approach and bootstrapping-based resampling was employed in this study (Hayes & Scharkow, 2013) to evaluate the mediating effects. The results shown in Table 4 indicate that NICB and stickiness to the SCP are partially mediated by utilitarian value (coefficient = .072, 95% CI [.032, .116],  $p \leq .001$ ) and emotional value (coefficient = .057, 95% CI [.014, 0.101],  $P \leq .01$ ). However, neither social value nor epistemic value had significant mediating effects on the relationships above.

## 5. DISCUSSION

This study sheds light on the behavior and engagement of nano-influencers on social commerce platforms (SCPs) in several ways. The demographic analysis reveals critical insights into the composition of nano-influencers. The majority of nano-influencers are female (85.24%), highlighting the significant role women play in driving social commerce. This gender distribution suggests potential opportunities for SCPs to tailor their strategies and product offerings to resonate with a predominantly female influencer base. Additionally, the significant portion of nano-influencers are aged between 30 and 39 years (34.35%), indicating that this age group is particularly active and influential, possessing both the financial resources

and digital fluency necessary for effective promotion.

Furthermore, the demographic analysis reveals that 66.42% of nano-influencers have received a college education or higher, suggesting a well-educated cohort capable of creating high-quality, engaging content. This educational background enhances the credibility and persuasive power of their endorsements. Research has shown that influencers' educational background can significantly impact their credibility and effectiveness in marketing (Vilkaite-Vaitone, 2024; Mabkhot et al., 2022). The employment status of nano-influencers is also crucial, with a large percentage working as office workers (35.37%) or government officers (19.59%). This employment stability may translate to a consistent and reliable presence on SCPs, strengthening their influence and engagement capabilities. The stability provided by such employment is linked to increased credibility and trustworthiness, as noted in studies on social media influencers' effectiveness and their ability to maintain a reliable and engaging online presence (Jiménez-Castillo & Sánchez-Fernández, 2019; Sokolova & Kefi, 2020).

These findings suggest that the combination of a solid educational background and stable employment enhances nano-influencers' credibility, making their endorsements more persuasive and effective in the context of SCPs. This is supported by research indicating that a well-educated cohort is capable of producing high-quality, engaging content, which in turn enhances their credibility and persuasive power (Jiménez-Castillo & Sánchez-Fernández, 2019; Sokolova & Kefi, 2020). Furthermore, the employment stability of nano-influencers, with many working as office workers or government officers, may translate to a consistent and reliable presence on SCPs, further strengthening their influence and engagement capabilities (Mabkhot et al., 2022; Arora et al., 2019; Abbas et al., 2018; Cooley & Parks-Yancy, 2019).

The structural model results demonstrate that Nano-Influencers' Citizenship Behavior (NICB) significantly influences stickiness to SCPs. This finding supports the hypothesis that behaviors such as providing feedback, advocacy, helping, and tolerance, are crucial for retaining nano-influencers on these platforms. This insight highlights the importance of fostering these citizenship behaviors to enhance influencer loyalty and engagement (Vilkaite-Vaitone, 2024).

NICB's significant impact on utilitarian, emotional, social, and epistemic values, suggests that these values are critical components of the perceived value derived from nano-influencers' participation in SCPs. These findings highlight the multifaceted nature of value creation in social commerce, emphasizing that influencers derive varied types of value from their interactions with SCPs. Furthermore, the mediation analysis revealed that utilitarian and emotional values partially mediate the relationship between NICB and stickiness to the SCP, indicating their role in enhancing the retention of nano-influencers by translating their citizenship behaviors into perceived value. The rejection of hypotheses H3c and H3d, which posited that social and epistemic values significantly affect stickiness, suggests that these aspects might not be primary drivers of nano-influencers' continued engagement with SCPs. Instead, utilitarian and emotional values are more pivotal in influencing their loyalty and ongoing participation (Mabkhot et al., 2022; Lou & Yuan, 2019; Lim et al., 2017).

This study also offers several significant research contributions. Firstly, this study enriches nano-influencer research. Previously, macro- and micro-influencers have been widely studied within the area of consumer behavior and marketing (Conde & Casais, 2023; Zafar et al., 2023), while nano-influencers in the context of social commerce have been overlooked. This study is the first to utilize value co-creation theory to explain how NICB affects nano-influencers' SCP stickiness. This study improves the theoretical framework for nano-influencers and the SCP, offering a fresh theoretical perspective on their impact. Secondly, this study reveals CCB outcomes, an underdeveloped area. Gong and Yi (2019) suggested an increasing interest in exploring these outcomes, but only 13 of 17 articles on the topic were

published. The focus on CCB outcomes may be limited due to its perceived role as a final result rather than a moderator or mediator in customer and company concepts (Mitrega et al., 2022).

This study addresses social and epistemic values' neglected within social commerce. E-commerce and marketing studies have confirmed that buyer-seller and retailer-supplier relationships have social and epistemic value (Hsieh et al., 2021; Shamim et al., 2024). Although strong social elements and improved interactive experiences define perceived value in the SCP (Li & Ku, 2018), this aspect has not been discussed. Meanwhile, the epistemic aspect of perceived value in the SCP, characterized by extensive product information and innovative content, has not been addressed. This study addresses the call for a comprehensive investigation into social commerce, specifically focusing on its social, emotional, and epistemic attributes (Shamim et al., 2024).

Regarding managerial implications, the study develops a comprehensive framework which incorporates the NICB-perceived value-stickiness connection to help industry professionals understand nano-influencers and SCPs' value co-creation mechanism. This study can help SCPs to develop marketing strategies that identify and maximize value co-creation with nano-influencers. The SCP should prioritize NICB, especially regarding user-generated content and positive word-of-mouth. This behavior, whether directly or indirectly, serves as a predictor of stickiness to the SCP, based on the perceived value it generates. Thus, nano-influencers can be classified based on VCB and recognized by their engagement. Meanwhile, SCPs must prioritize strategies to increase nano-influencers' utilitarian and emotional value. Significantly, social and epistemic values do not affect engagement expectations. The SCP can offer nano-influencers more appealing commissions or rewards to boost their enthusiasm. Fostering closer collaboration and participating in important projects strengthens emotional bonds. These strategies are essential for nano-influencers to develop deeper loyalty.

## **6. CONCLUSION AND RECOMMENDATION**

This study has several notable findings. Firstly, the findings suggest that NICB in SCP product promotion creates utilitarian, social, emotional, and epistemic values. Previous research supports this finding (Tran & Vu, 2021; Xu et al., 2021). This study shows that NICB is crucial to value co-creation in service-dominant logic. Nano-influencers' SCP co-promotion mechanism must account for all relevant motivations. Secondly, utilitarian and emotional values have a positive impact on nano-influencers' stickiness to the SCP, consistent with previous research (Ceyhan, 2019). The reasons may be attributed to the nature of nano-influencers, who promote products or services to their followers by creating visually and verbally appealing content (Argyris et al., 2021). In exchange, they receive cash or non-cash benefits such as free goods or trips from companies (Campbell & Farrell, 2020).

Thirdly, SCP stickiness is unaffected by epistemic or social values. This contradicts Wong et al. (2019) and Ceyhan (2019), but is partially in line with Hassan and Moosa (2015). One explanation for this contradiction could be that stickiness from nano-influencers may not be fully generated by SCPs' negative social value (Zhang et al., 2017). Accordingly, epistemic or social values were found not to mediate the NICB-SCP stickiness relationship. This is primarily because stickiness is mostly unaffected by social and epistemic value in this study.

Finally, further testing shows that emotional and utilitarian values partially mediate the NICB-SCP stickiness relationship. One explanation is that higher-engagement nano-influencers may post more humorous and teasing content with vivid language, start "interesting interactions", and continue to promote products on SCPs. This engagement will provide nano-influencers with a positive emotional experience, improving their view of the SCP (Hollebeek, 2011) and encouraging them to return and share.

This study has limitations and suggests future research. First, this study does not hypothesize NICB sub-dimensions or perceived value. To precisely determine each dimension's function, further research should examine how NICB sub-dimensions affect perceived value. Second, since citizenship behavior is crucial to co-creating values, the NICB variables must be examined. We can better understand how NICB co-creates value by studying its causes and moderating factors. These studies can also suggest ways to improve nano-influencers' experiences. We strongly support research on the variables that may moderate the relationship between these behaviors and their antecedents, as well as the factors which precede nano-influencers' value co-creation behaviors. Finally, China-specific nano-influencer data was collected and analyzed. To determine if nano-influencers or other influencers can be applied to other cultures, further testing is required.

## REFERENCES

- Abbas, A., Afshan, G., Aslam, I., & Ewaz, L. (2018). The Effect of Celebrity Endorsement on Customer Purchase Intention: A Comparative Study. *Current Economics and Management Research*, 4(1), 1-10.
- AlFarraj, O., Alalwan, A. A., Obeidat, Z. M., Baabdullah, A., Aldmour, R., & Al-Haddad, S. (2021). Examining the impact of influencers' credibility dimensions: attractiveness, trustworthiness and expertise on the purchase intention in the aesthetic dermatology industry. *Review of International Business and Strategy*, 31(3), 355-374. <https://doi.org/10.1108/RIBS-07-2020-0089>.
- Anshu, K., Gaur, L., & Singh, G. (2022). Impact of customer experience on attitude and repurchase intention in online grocery retailing: A moderation mechanism of value Co-creation. *Journal of Retailing and Consumer Services*, 64, 102798. <https://doi.org/10.1016/j.jretconser.2021.102798>.
- Argyris, Y. A., Muqaddam, A., & Miller, S. (2021). The effects of the visual presentation of an Influencer's Extroversion on perceived credibility and purchase intentions—moderated by personality matching with the audience. *Journal of Retailing and Consumer Services*, 59, 102347. <https://doi.org/10.1016/j.jretconser.2020.102347>.
- Arora, T., Bansal, S., Kandpal, C., Aswani, R., & Dwivedi, Y. K. (2019). Measuring social media influencer index- insights from Facebook, Twitter and Instagram. *Journal of Retailing and Consumer Services*, 49, 86-101. <https://doi.org/10.1016/j.jretconser.2019.03.012>
- Ashley, C., & Tuten, T. (2015). Creative strategies in social media marketing: An exploratory study of branded social content and consumer engagement. *Psychology & Marketing*, 32(1), 15-27. <https://doi.org/10.1002/mar.20761>.
- Asmayadi, E., & Hartini, S. (2015). The impact of service quality and product quality towards customer loyalty through emotional and functional values in traditional markets in Pontianak, Indonesia. *European Journal of Business and Management*, 7(5).
- Assiouras, I., Skourtis, G., Giannopoulos, A., Buhalis, D., & Koniordos, M. (2019). Value co-creation and customer citizenship behavior. *Annals of Tourism Research*, 78, 102742. <https://doi.org/10.1016/j.annals.2019.102742>.
- Babin, B. J., Darden, W. R., & Mitch, G. (1994). Work and/or Fun: Measuring hedonic and utilitarian shopping value. *Journal of Consumer Research* (4), 644-656. <https://doi.org/10.1086/209376>.
- Berne-Manero, C., & Marzo-Navarro, M. (2020). Exploring how influencer and relationship marketing serve corporate sustainability. *Sustainability*, 12(11), 4392. <https://doi.org/10.3390/su12114392>.
- Bove, L. L., Pervan, S. J., Beatty, S. E., & Shiu, E. (2009). Service worker role in encouraging

- customer organizational citizenship behaviors. *Journal of Business Research*, 62(7), 698-705. <https://doi.org/10.1016/j.jbusres.2008.07.003>.
- Campbell, C., & Farrell, J. R. (2020). More than meets the eye: The functional components underlying influencer marketing. *Business Horizons*, 63(4), 469-479. <https://doi.org/10.1016/j.bushor.2020.03.003>.
- Ceyhan, A. (2019). The impact of perception related social media marketing applications on consumers' brand loyalty and purchase intention. *EMAJ: Emerging Markets Journal*, 9(1), 88-100. <https://doi.org/10.5195/emaj.2019.173>.
- Conde, R., & Casais, B. (2023). Micro, macro and mega-influencers on instagram: The power of persuasion via the parasocial relationship. *Journal of Business Research*, 158, 113708. <https://doi.org/10.1016/j.jbusres.2023.113708>.
- Cooley, D., & Parks-Yancy, R. (2019). The Effect of Social Media on Perceived Information Credibility and Decision Making. *Journal of Internet Commerce*, 1-21. <https://doi.org/10.1080/15332861.2019.1595362>.
- Doorn, J. V., Lemon, K. N., Mittal, V., Nass, S., & Verhoef, P. C. (2010). Customer engagement behavior: theoretical foundations and research directions. *Journal of Service Research*, 13(3), 253-266. <https://doi.org/10.1177/1094670510375599>.
- Eisingerich, A. B., Auh, S., & Merlo, O. (2014). Acta non verba? The role of customer participation and word of mouth in the relationship between service firms' customer satisfaction and sales performance. *Journal of Service Research*, 17(1), 40-53. <https://doi.org/10.1177/1094670513490836>.
- Fainmesser, I. P., & Galeotti, A. (2021). The market for online influence. *American Economic Journal: Microeconomics*, 13. <http://10.1257/mic.20200050>.
- Falk, R., & Miller, N. (1992). A primer for soft modeling. *Akron, OH: University of Akron*.
- Fornell, C., & Larcker, D. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18 (1), 39-50. <https://doi.org/10.2307/3151312>.
- Friedrich, T., Schlauderer, S., & Overhage, S. (2019). The impact of social commerce feature richness on website stickiness through cognitive and affective factors: An experimental study. *Electronic Commerce Research and Applications*, 36, 100861. <https://doi.org/10.1016/j.elerap.2019.100861>.
- Gomes, M. A., Marques, S., & Dias, Á. (2022). The impact of digital influencers' characteristics on purchase intention of fashion products. *Journal of Global Fashion Marketing*, 13(3), 187-204. <https://doi.org/10.1080/20932685.2022.2039263>.
- Gong, T., & Yi, Y. (2019). A review of customer citizenship behaviors in the service context. *The Service Industries Journal*, 41(3-4), 169-199. <https://doi.org/10.1080/02642069.2019.1680641>.
- Hair, J. F., Jr., G. T. M., Hult, C. R., & M, S. (2017). A primer on partial least squares structural Equation Modeling. *Thousand Oaks*. <https://doi.org/10.1007/978-3-030-80519-7>.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24. <https://doi.org/10.1108/EBR-11-2018-0203>.
- Hair, J.F., Sarstedt, M., Ringle, C.M., et al. (2012). An assessment of the use of partial least squares structural equation modeling in marketing research. *Journal of the Academy of Marketing Science*, 40, 414-433. <https://doi.org/10.1007/s11747-011-0261-6>.
- Hassan, Z., & Moosa, M. Y. (2015). Customer perceived values associated with automobile and brand loyalty. *International Journal of Accounting and Business Management*, 3(2015), 99-115. <http://10.24924/ijabm/2015.04/v3.iss1/92.107>.
- Hayes, A. F., & Scharkow, M. (2013). The relative trustworthiness of inferential tests of the indirect effect in statistical mediation analysis: does method really matter?

- Psychological Science*, 24(10), 1918-1927. <https://doi.org/10.1177/0956797613480187>.
- Henseler, J., Hubona, G., & Ray, P. A. (2016). Using PLS path modeling in new technology research: updated guidelines. *Industrial Management & Data Systems*, 116(1), 2-20. <https://doi.org/10.1108/IMDS-09-2015-0382>.
- Himmelboim, I., & Golan, G. J. (2023). A social network approach to social media influencers on Instagram: the strength of being a Nano-Influencer in cause communities. *Journal of Interactive Advertising*, 23(1), 1-13. <https://doi.org/10.1080/15252019.2022.2139653>.
- Hollebeek, L. (2011). Exploring customer brand engagement: definition and themes. *Journal of Strategic Marketing*, 19(7), 555-573. <https://doi.org/10.1080/0965254X.2011.599493>.
- Hsieh, Y.-J., Yang Lin, S.-M., & Huang, L.-Y. (2021). Sharing leftover food with strangers via social media: a value perspective based on beliefs-values-behavior framework. *Sustainability*, 13(14), 7663. <https://doi.org/10.3390/su13147663>.
- Hu, L., Min, Q., Han, S., & Liu, Z. (2020). Understanding followers' stickiness to digital influencers: The effect of psychological responses. *International Journal of Information Management*, 54, 102169. <https://doi.org/10.1016/j.ijinfomgt.2020.102169>.
- Jiang, Y., Balaji, M. S., & Jha, S. (2019). Together we tango: Value facilitation and customer participation in Airbnb. *International Journal of Hospitality Management*, 82, 169-180. <https://doi.org/10.1016/j.ijhm.2019.05.004>.
- Jiménez-Castillo, D., & Sánchez-Fernández, R. (2019). The role of digital influencers in brand recommendation: Examining their impact on engagement, expected value and purchase intention. *International Journal of Information Management*, 49, 366-376. <https://doi.org/10.1016/j.ijinfomgt.2019.07.009>.
- Jun, S., & Yi, J. (2020). What makes followers loyal? The role of influencer interactivity in building influencer brand equity. *Journal of Product & Brand Management*, 29(6), 803-814. <https://doi.org/10.1108/JPB-02-2019-2280>.
- Khan, S. N., & Mohsin, M. (2017). The power of emotional value: Exploring the effects of values on green product consumer choice behavior. *Journal of Cleaner Production*, 150, 65-74. <https://doi.org/10.1016/j.jclepro.2017.02.187>.
- Kim, E., & Tang, L. R. (2020). The role of customer behavior in forming perceived value at restaurants: A multidimensional approach. *International Journal of Hospitality Management*, 87, 102511. <https://doi.org/10.1016/j.ijhm.2020.102511>.
- Kim, L., Pongsakornrungsilp, P., Pongsakornrungsilp, S., Horam, N., & Kumar, V. (2023). Key determinants of job satisfaction among university lecturers. *Social Sciences*, 12(3), 153. <https://doi.org/10.3390/socsci12030153>.
- Kim, M., Yin, X., & Lee, G. (2020). The effect of CSR on corporate image, customer citizenship behaviors, and customers' long-term relationship orientation. *International Journal of Hospitality Management*, 88, 102520. <https://doi.org/10.1016/j.ijhm.2020.102520>.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement*, 30(3), 607-610. <https://doi.org/10.1177/001316447003000308>.
- Laczko, P., Hullova, D., Needham, A., Rossiter, A.-M., & Battisti, M. (2019). The role of a central actor in increasing platform stickiness and stakeholder profitability: Bridging the gap between value creation and value capture in the sharing economy. *Industrial Marketing Management*, 76, 214-230. <https://doi.org/10.1016/j.indmarman.2018.08.010>.
- Li, C.-Y., & Ku, Y.-C. (2018). The power of a thumbs-up: Will e-commerce switch to social commerce? *Information & Management*, 55(3), 340-357.

- <https://doi.org/10.1016/j.im.2017.09.001>.
- Li, Y., Li, X., & Cai, J. (2021). How attachment affects user stickiness on live streaming platforms: A socio-technical approach perspective. *Journal of Retailing and Consumer Services*, 60, 102478. <https://doi.org/10.1016/j.jretconser.2021.102478>.
- Lim, Radzol, Cheah, & Wang (2017). The impact of Social Media Influencers on Purchase Intention and the Mediation Effect of Customer Attitude. *Asian Journal of Business Research*, 7(12), 19-36. <https://doi.org/10.14707/ajbr.170035>.
- Lou, C., & Yuan, S. (2019). Influencer Marketing: How Message Value and Credibility Affect Consumer Trust of Branded Content on Social Media. *Journal of Interactive Advertising*, 19(1), 58-73. <https://doi.org/10.1080/15252019.2018.1533501>.
- Mabkhot, H., Isa, N. M., & Mabkhot, A. (2022). The influence of the credibility of social media influencers (SMIs) on the consumers' purchase intentions: Evidence from Saudi Arabia. *Sustainability*, 14(19), 12323. <https://doi.org/10.3390/su141912323>.
- Meng, B., & Cui, M. (2020). The role of co-creation experience in forming tourists' revisit intention to home-based accommodation: Extending the theory of planned behavior. *Tourism Management Perspectives*, 33, 100581. <https://doi.org/10.1016/j.tmp.2019.100581>.
- Mitrega, M., Klézil, V., & Spáčil, V. (2022). Systematic review on customer citizenship behavior: Clarifying the domain and future research agenda. *Journal of Business Research*, 140, 25-39. <https://doi.org/10.1016/j.jbusres.2021.11.029>.
- Mohamed, K., Moez, L., & Vanessa, L. (2002). Online consumer stickiness: A longitudinal study. *Journal of Global Information Management*, 10(3), 1-14. <http://doi.10.4018/jgim.2002070101>.
- Molinillo, S., Aguilar-Illescas, R., Anaya-Sánchez, R., & Liébana-Cabanillas, F. (2021). Social commerce website design, perceived value and loyalty behavior intentions: The moderating roles of gender, age and frequency of use. *Journal of Retailing and Consumer Services*, 63, 102404. <https://doi.org/10.1016/j.jretconser.2020.102404>.
- Molinillo, S., Anaya-Sánchez, R., & Liébana-Cabanillas, F. (2020). Analyzing the effect of social support and community factors on customer engagement and its impact on loyalty behaviors toward social commerce websites. *Computers in Human Behavior*, 108, 105980. <https://doi.org/10.1016/j.chb.2019.04.004>.
- Nemzow, M. (1999). Universal Ecommerce Currency Breakthrough. In *Proceedings of WebNet World Conference on the WWW and Internet 1999* (pp. 1587-1588). Honolulu, Hawaii: Association for the Advancement of Computing in Education (AACE).
- Oghuma, A. P., Libaque-Saenz, C. F., Wong, S. F., & Chang, Y. (2016). An expectation-confirmation model of continuance intention to use mobile instant messaging. *Telematics and Informatics*, 33(1), 34-47. <https://doi.org/10.1016/j.tele.2015.05.006>.
- Omar, N. A., Kassim, A. S., Shah, N. U., Shah Alam, S., & Che Wel, C. A. (2020). The Influence of Customer Value Co-Creation Behavior on SME Brand Equity: An Empirical Analysis. *Interdisciplinary Journal of Management Studies (Formerly known as Iranian Journal of Management Studies)*, 13(2), 165-196. doi: 10.22059/ijms.2019.280005.673611
- Pihlström, M., & Brush, G. J. (2008). Comparing the perceived value of information and entertainment mobile services. *Psychology & Marketing*, 25(8), 732-755. <https://doi.org/10.1002/mar.20236>.
- Qu, Y., Ciešlik, A., Fang, S., & Qing, Y. (2023). The role of online interaction in user stickiness of social commerce: The shopping value perspective. *Digital Business*, 3(2), 100061. <https://doi.org/10.1016/j.digbus.2023.100061>.
- Rafki Chandra, W., Chairani Putri, P., & Hasna, L. (2021, 2021/12/07). The role of Nano Influencers through Instagram as an effective digital marketing strategy. In *Proceedings*

- of the Conference Towards ASEAN Chairmanship 2023 (T-A-C 23 2021). <http://dx.doi.org/10.2991/aebmr.k.211207.036>.
- Rahayu, Y., Setiawan, M., Irawanto, D., & Rahayu, M. (2020). Muslim customer perceived value on customer satisfaction and loyalty: Religiosity as a moderation. *Management Science Letters*, 10(5), 1011-1016. <http://dx.doi.org/10.5267/j.msl.2019.11.009>.
- Ringle, C. M., Wende, S., & Becker, J.-M. (2015). SmartPLS GmbH: Boenningstedt. *Journal of Service Science and Management*, 10(3), 32-49.
- Romero-Rodriguez, L. M., & Castillo-Abdul, B. (2023). Toward state-of-the-art on social marketing research in user-generated content (UGC) and influencers. *Journal of Management Development*. <http://dx.doi.org/10.1108/JMD-11-2022-0285>.
- Roy, S. K., Balaji, M. S., Soutar, G., & Jiang, Y. (2019). The antecedents and consequences of Value Co-Creation behaviors in a hotel setting: A two-country study. *Cornell Hospitality Quarterly*, 61(3), 353-368. <http://dx.doi.org/10.1177/1938965519890572>.
- Saygılı, M., & Yalçıntekin, T. (2021). The effect of hedonic value, utilitarian value, and customer satisfaction in predicting repurchase intention and willingness to pay a price premium for smartwatch brands. *Management: Journal of Contemporary Management Issues*, 26(2), 179-195. <http://dx.doi.org/10.30924/mjcmi.26.2.10>.
- Senić, V., & Marinković, V. (2014). Examining the effect of different components of customer value on attitudinal loyalty and behavioral intentions. *International Journal of Quality and Service Sciences*, 6(2/3), 134-142. <http://dx.doi.org/10.1108/IJQSS-02-2014-0010>.
- Shamim, K., Azam, M., & Islam, T. (2024). How do social media influencers induce the urge to buy impulsively? Social commerce context. *Journal of Retailing and Consumer Services*, 77, 103621. <https://doi.org/10.1016/j.jretconser.2023.103621>.
- Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22(2), 159-170. [http://dx.doi.org/10.1016/0148-2963\(91\)90050-8](http://dx.doi.org/10.1016/0148-2963(91)90050-8).
- Sokolova, K., & Kefi, H. (2020). Instagram and YouTube bloggers promote it, why should I buy? How credibility and parasocial interaction influence purchase intentions. *Journal of Retailing and Consumer Services*, 53, 101742. <https://doi.org/10.1016/j.jretconser.2019.01.011>.
- Solakıs, K., Peña-Vinces, J., & Lopez-Bonilla, J. M. (2022). Value co-creation and perceived value: A customer perspective in the hospitality context. *European Research on Management and Business Economics*, 28(1), 100175. <http://dx.doi.org/10.1016/j.iedeen.2021.100175>.
- Sweeney, J. C., & Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing*, 77(2), 203-220. [https://doi.org/10.1016/S0022-4359\(01\)00041-0](https://doi.org/10.1016/S0022-4359(01)00041-0).
- Tran, T. B. H., & Vu, A. D. (2021). From customer value co-creation behaviour to customer perceived value. *Journal of Marketing Management*, 37(9-10), 993-1026. <http://dx.doi.org/10.1080/0267257X.2021.1908398>.
- Van den Broeck, A., Vansteenkiste, M., De Witte, H., Soenens, B., & Lens, W. (2010). Capturing autonomy, competence, and relatedness at work: Construction and initial validation of the Work-related Basic Need Satisfaction scale. *Journal of occupational and organizational psychology*, 83(4), 981-1002. <http://dx.doi.org/10.1348/096317909X481382>.
- Vilkaite-Vaitone, N. (2024). From likes to sustainability: How social media influencers are changing the way we consume. *Sustainability*, 16(4), 1393. <https://doi.org/10.3390/su16041393>.
- Wang, L., & Prompanyo, M. (2020). Modeling the relationship between perceived values, e-satisfaction, and e-loyalty. *Management Science Letters*, 10(11), 2609-2616.

- <http://dx.doi.org/10.5267/j.msl.2020.3.032>.
- Wong, K. H., Chang, H. H., & Yeh, C. H. (2019). The effects of consumption values and relational benefits on smartphone brand switching behavior. *Information Technology & People*, 32(1), 217-243. <http://dx.doi.org/10.1108/ITP-02-2018-0064>.
- Xu, F., Tan, J., Lu, L., Li, S., & Qin, L. (2021). How does Value Co-Creation behavior affect destination loyalty? A role switching perspective. *Journal of Theoretical and Applied Electronic Commerce Research*, 16(5), 1805-1826. <http://dx.doi.org/10.3390/jtaer16050101>.
- Yen, C.-H., Tsai, C.-H., & Han, T.-C. (2022). Can tourist value cocreation behavior enhance tour leader love? The role of perceived value. *Journal of Hospitality and Tourism Management*, 53, 133-142. <http://dx.doi.org/10.1016/j.jhtm.2022.10.001>.
- Yi, Y., & Gong, T. (2013). Customer Value Co-Creation behavior: scale development and validation. *Journal of Business Research*, 66(9), 1279–1284. <http://dx.doi.org/10.1016/j.jbusres.2012.02.026>.
- Yi, Y., Gong, T., & Lee, H. (2013). The Impact of other customers on customer citizenship behavior. *Psychology & Marketing*, 30(4), 341-356. <http://dx.doi.org/10.1002/mar.20610>.
- Yi, Y., Natarajan, R., & Gong, T. (2011). Customer participation and citizenship behavioral influences on employee performance, satisfaction, commitment, and turnover intention. *Journal of Business Research*, 64(1), 87-95. <http://dx.doi.org/10.1016/j.jbusres.2009.12.007>.
- Zafar, A. U., Shahzad, M., Ashfaq, M., & Shahzad, K. (2023). Forecasting impulsive consumers driven by macro-influencers posts: Intervention of followers' flow state and perceived informativeness. *Technological Forecasting and Social Change*, 190, 122408. <http://dx.doi.org/10.1016/j.techfore.2023.122408>.
- Zhang, M., Guo, L., Hu, M., & Liu, W. (2017). Influence of customer engagement with company social networks on stickiness: Mediating effect of customer value creation. *International Journal of Information Management*, 37(3), 229-240. <http://dx.doi.org/10.1016/j.ijinfomgt.2016.04.010>.
- Zhang, W., Xu, Y., & Zheng, H. (2019). The antecedents and consequences of crowdfunding investors' citizenship behaviors. *Online Information Review*, 43(4), 584-599. <http://dx.doi.org/10.1108/OIR-09-2017-0271>.