RJCM Vol. 7, No. 3, September-December 2026

e-ISSN 2821-9074
Print-ISSN 2730-2601
RICE Journal of Creative Entrepreneurship and Management, Vol. 7, No.3, pp. 44-57, September-December 2026
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doi:
Received 08.08.26 / Revised 09.10.26/ Accepted 20.10.26

Brand Value Co-creation Influence on Consumer Satisfaction and Brand Loyalty: The Case of Xiaomi

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Abstract

This cross-sectional study examines the relationships between three dimensions of brand value co-creation, consumer satisfaction, and brand loyalty among 417 Chinese Xiaomi users. Data were collected through Wenjuanxing using non-probability convenience sampling and analyzed using SPSS and AMOS. The structural model showed good fit (CFI = .992; RMSEA = .016). participation behavior ($\beta = .218$, $p = .002$) and co-creation cognition ($\beta = .205$, $p = .003$) significantly predicted satisfaction, which predicted loyalty ($\beta = .296$, $p < .001$). Their direct paths to loyalty were also significant ($\beta = .140$, $p = .036$; $\beta = .142$, $p = .033$, respectively). Bootstrap analysis with 5,000 resamples identified significant indirect effects through satisfaction for participation behavior (effect = .059, 95% bias-corrected CI [.022, .116]) and co-creation cognition (effect = .057, 95% bias-corrected CI [.019, .114]), indicating partial statistical mediation. Interactive experience did not significantly predict satisfaction or loyalty, and its indirect effect was not significant. These findings suggest that Xiaomi and emerging platform ventures should prioritize meaningful user participation and visible recognition of contributions. The cross-sectional design limits causal interpretation.

Keywords: *Brand Value Co-creation; Consumer Satisfaction; Brand Loyalty; Xiaomi; Platform Ecosystem*

1. Introduction

1.1 Research Background

Digital platforms provide consumers with opportunities to contribute feedback, knowledge, and experience throughout their relationships with brands. Value Co-creation Theory and Service-Dominant Logic explain value as emerging through interaction and resource integration rather than being produced exclusively by firms (Prahalad & Ramaswamy, 2004; Vargo & Lusch, 2004). Ecosystem research further emphasizes the interdependence of complementary products, services, and participants (Adner, 2017; Jacobides et al., 2018).

The present study focuses on Xiaomi users in China, where Xiaomi Community has been examined as a virtual brand-community setting for customer interaction and value co-

creation (Huang & Suo, 2021). The research context also includes Xiaomi products, the MIUI system, connected products, and brand-related interaction, enabling examination of participation, interactive experience, and co-creation cognition within one ecosystem. China defines the target population; the author’ s institutional location does not define the study market.

Previous research has examined voluntary participation in virtual customer environments and engagement in online brand communities (Brodie et al., 2013; Nambisan & Baron, 2009). These studies establish the relevance of consumer participation but do not make different forms of co-creation conceptually interchangeable. An overall co-creation score may summarize a general association while concealing differences among behavioral, experiential, and cognitive components.

This study therefore examines Participation Behavior, Interactive Experience, and Co-creation Cognition separately within the Xiaomi context and tests Consumer Satisfaction as a statistical mediator of their relationships with Brand Loyalty. Its contribution is a context-specific comparison of these dimensions, supported by preliminary analysis of overall Brand Value Co-creation, rather than a claim that co-creation and loyalty have not previously been studied.

1.2 Research Objectives

1.The first objective is to examine the relationships of Participation Behavior, Interactive Experience, and Co-creation Cognition with Consumer Satisfaction among Chinese Xiaomi users.

2.The second objective is to examine the relationships of these three co-creation dimensions and Consumer Satisfaction with Brand Loyalty.

3.The third objective is to test whether Consumer Satisfaction statistically mediates the relationships between each co-creation dimension and Brand Loyalty. Overall Brand Value Co-creation is additionally examined through preliminary observed-score analysis.

2. Literature Review

2.1 Theoretical Foundation

Value Co-creation Theory argues that value is not produced only by the firm and then transferred to passive consumers. Instead, value emerges through interaction, participation, dialogue, and shared problem solving between firms and consumers (Hatch & Schultz, 2010; Prahalad & Ramaswamy, 2004). In Xiaomi’s case, users may contribute to value creation by reporting system bugs, giving product suggestions, participating in internal testing, or sharing experiences in communities. These behaviors provide information resources for the firm and may also strengthen users’ sense of involvement (Brodie et al., 2011).

Service-Dominant Logic further explains that value is realized in use rather than being embedded entirely in products (Vargo & Lusch, 2004). The value of a Xiaomi smartphone, for example, depends not only on hardware specifications, but also on software stability, system updates, the account system, cloud services, connected devices, and the user’s ability to integrate these resources. This logic is especially relevant to Xiaomi because its brand value is increasingly realized through an ecosystem rather than through a single device.

Platform ecosystem research emphasizes coordination among interdependent participants and complementary offerings (Adner, 2017; Jacobides et al., 2018). This perspective explains why consumers may evaluate a brand through connected products, services, and interaction settings rather than through one isolated purchase. In the present

study, the ecosystem perspective defines the research context; ecosystem coordination is not introduced as a separate measured variable.

Brand Relationship Theory explains why repeated positive experiences may become loyalty (Fournier, 1998; Morgan & Hunt, 1994). When users feel that the brand responds to their needs and that the ecosystem supports their daily life, they are more likely to form trust, preference, emotional attachment, and continued purchase intention (Chaudhuri & Holbrook, 2001; Oliver, 1999). Consumer Satisfaction plays a central role in this process because it summarizes the user's evaluation of products, services, interactions, and ecosystem performance over time (Anderson & Sullivan, 1993; Oliver, 1980).

These perspectives play complementary roles in the research framework. Value co-creation and Service-Dominant Logic explain consumer contributions, the ecosystem perspective defines the connected setting, and satisfaction and brand relationship research explain how users' evaluations may relate to continued brand preference (Anderson & Sullivan, 1993; Fournier, 1998; Oliver, 1999). Together, they support the proposed relationships without establishing their causal direction in cross-sectional data.

2.2 Research Background and Key Constructs

Brand Value Co-creation is operationalized through three context-specific dimensions informed by previous research. Yi and Gong (2013) distinguish customer participation behavior and customer citizenship behavior; their original scale is not identical to the three-dimensional structure used here. The present operationalization combines ideas from co-creation behavior, customer experience, and brand co-creation research (Hatch & Schultz, 2010; Lemon & Verhoef, 2016; Yi & Gong, 2013).

Participation Behavior concerns self-reported participation and perceived opportunities to contribute feedback or support improvement. Interactive Experience concerns perceived responsiveness, interaction opportunities, and experience across Xiaomi ecosystem products. Co-creation Cognition concerns users' perceptions that their participation creates value, receives recognition, and connects them with the brand. The dimensions are related but are intended to represent different aspects of co-creation. Their empirical distinctiveness must therefore be assessed rather than assumed from their labels.

Consumer Satisfaction refers to users' overall evaluation of Xiaomi products, services, and ecosystem experiences relative to their expectations (Oliver, 1980). Brand Loyalty refers to sustained preference, continued-use and recommendation intentions, and long-term support for Xiaomi (Oliver, 1999). Interactive Experience captures perceptions of encounters with the brand, whereas satisfaction represents a broader evaluative response.

2.3 Hypothesis Development

Participation can provide opportunities to communicate needs and contribute to improvements, while responsive interaction may support favorable evaluations of the brand. Perceiving contributions as meaningful may further strengthen these evaluations. These mechanisms are consistent with value co-creation and satisfaction research (Oliver, 1980; Prahalad & Ramaswamy, 2004; Yi & Gong, 2013). Positive relationships with Consumer Satisfaction are therefore proposed for the three co-creation dimensions.

Co-creation may also be associated with Brand Loyalty through involvement, accumulated experience, and perceived connection with the brand. Research on virtual brand communities describes engagement as an interactive process involving relational outcomes such as satisfaction and loyalty (Brodie et al., 2013). Recent empirical research in social commerce and virtual brand communities has likewise linked consumer engagement and co-creation-related experiences with satisfaction, loyalty, and value co-creation outcomes (Bu et al., 2020; Nadeem et al., 2021). However, the present dimensions differ from a general engagement construct and require separate testing.

Consumer Satisfaction is expected to be positively associated with Brand Loyalty because favorable evaluations can support continued preference and future choice (Anderson & Sullivan, 1993; Oliver, 1999). Satisfaction is also proposed as a statistical mediator linking each co-creation dimension with loyalty. The proposed indirect relationships do not require the corresponding direct relationships to disappear.

Hypothesis	Statement
H1a	Participation Behavior is positively associated with Consumer Satisfaction.
H1b	Interactive Experience is positively associated with Consumer Satisfaction.
H1c	Co-creation Cognition is positively associated with Consumer Satisfaction.
H2a	Participation Behavior is positively associated with Brand Loyalty.
H2b	Interactive Experience is positively associated with Brand Loyalty.
H2c	Co-creation Cognition is positively associated with Brand Loyalty.
H3	Consumer Satisfaction is positively associated with Brand Loyalty.
H4a	Consumer Satisfaction mediates the relationship between Participation Behavior and Brand Loyalty.
H4b	Consumer Satisfaction mediates the relationship between Interactive Experience and Brand Loyalty.
H4c	Consumer Satisfaction mediates the relationship between Co-creation Cognition and Brand Loyalty.

Source: Author's formulation based on the literature reviewed in Section 2.3

3. Methodology

3.1 Research Method

This study used a cross-sectional quantitative survey design. The questionnaire was informed by established theoretical and measurement literature and contextualized for Xiaomi users. Co-creation measures drew on value co-creation and customer behavior research (Prahalad & Ramaswamy, 2004; Yi & Gong, 2013), while satisfaction and loyalty measures were informed by expectation-based evaluation and brand loyalty research (Chaudhuri & Holbrook, 2001; Oliver, 1980, 1999). The questionnaire should not be interpreted as a verbatim reproduction of all source scales. Its 30 core measurement items used a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

Brand Value Co-creation was measured through twelve items divided into Participation Behavior, Interactive Experience, and Co-creation Cognition. Consumer Satisfaction was measured through eight items reflecting the overall evaluation of Xiaomi products, system experience, ecosystem synergy, service experience, and expectation fulfillment. Brand Loyalty was measured through ten items concerning continued use, recommendation, trust, and long-term support.

Table 1 Variables and Measurement Structure. **Source**: Author's compilation based on Prahalad and Ramaswamy (2004), Vargo and Lusch (2004), Yi and Gong (2013), Lemon and Verhoef (2016), Oliver (1980, 1999), and Chaudhuri and Holbrook (2001).

Construct	Dimension	Items	Conceptual and Measurement Foundations
Brand Value Co-creation	Participation Behavior	Q12-Q15	Prahalad & Ramaswamy (2004); Yi & Gong (2013)
Brand Value Co-creation	Interactive Experience	Q16-Q19	Prahalad & Ramaswamy (2004); Vargo & Lusch (2004)
Brand Value Co-creation	Co-creation Cognition	Q20-Q23	Prahalad & Ramaswamy (2004); Yi & Gong (2013)
Consumer Satisfaction	Single dimension	Q24-Q31	Oliver (1980); Chaudhuri & Holbrook (2001)
Brand Loyalty	Single dimension	Q32-Q41	Oliver (1999); Chaudhuri & Holbrook (2001)

Note. Q12–Q41 comprise the 30 core measurement items. Questions 1–11 concern eligibility, respondent characteristics, and Xiaomi usage and are excluded from the measurement model. The three BVC dimensions are context-specific operationalizations informed by the cited literature.

3.2 Data Collection Procedure

The target population comprised consumers in China with experience using Xiaomi products. This study used non-probability convenience sampling to recruit respondents through social media, online communities, and an online questionnaire platform. An eligibility screening question ensured that participants had used or were currently using Xiaomi products. Wenjuanxing, a Chinese online questionnaire platform, was used to host and distribute the questionnaire, record submitted responses, and export the dataset for subsequent statistical analysis. It was selected because it supported online questionnaire distribution, respondent screening, response recording, and structured data export, which were suitable for recruiting geographically dispersed Xiaomi users in China. This online approach facilitated access to eligible respondents but did not provide a probability sample of the Xiaomi user population.

The sample-size assessment was based on the 30 core measurement items rather than all 41 questionnaire questions. A guideline of five to ten observations per item indicated a preliminary range of 150–300 responses (Hair et al., 2018). The final sample of 417 exceeded this range. This guideline provided a preliminary assessment of sample adequacy but did not establish statistical power for every model parameter or guarantee population representativeness.

Following data screening, 417 valid questionnaires were retained for analysis. Screening covered Xiaomi product usage eligibility, missing values, coding range, completion time, and potentially duplicated submissions. Among the retained responses, no missing or out-of-range values were identified for the 30 core measurement items. Completion times ranged from 126 to 300 seconds, with a mean of 226.03 seconds. One IP address appeared twice in the retained dataset; the records differed in submission time, duration, and item responses and were not excluded solely because they shared an IP address. The same 417 cases were used throughout the subsequent analyses.

The non-probability online recruitment procedure may overrepresent digitally active users. The findings therefore describe the surveyed Chinese Xiaomi users and should not be treated as population estimates for all Xiaomi customers.

Table 2 Data Screening Results. **Source**: Author's analysis of the survey data (2026).

Screening Item	Result	Description
Valid questionnaires retained for analysis	417 responses	All came from original data exported from Wenjuanxing
Target sample screening	417 valid responses	All respondents had used or were currently using Xiaomi products
Scale item range	1-5	Met the coding requirements of the five-point Likert scale
Missing values	0	All scale items from Q12 to Q41 had no missing values
Completion time	126-300 seconds; mean 226.03 seconds	No obviously too-short responses were found
Duplicate IP	One IP was duplicated; maximum repetition was twice	The responses were not completely identical and were not removed solely on this basis

Because all core variables were collected from the same respondents using a self-reported questionnaire, common method variance was assessed using Harman's single-factor test (Podsakoff et al., 2003). An unrotated exploratory factor analysis of the 30 core measurement items showed that the first factor explained 26.61% of the total variance, below the commonly used 50% threshold (Podsakoff et al., 2003). Therefore, the results did not indicate that a single factor dominated the covariance among the measurement items.

Table 3 Sample Characteristics (N=417). **Source**: Author's analysis of the survey data (2026).

Variable	Category	Frequency	Percentage
Gender	Male	247	59.2%
Gender	Female	170	40.8%
Age	18-25 years old	127	30.5%
Age	26-35 years old	196	47.0%
Age	36-45 years old	68	16.3%
Age	46 years old and above	26	6.2%
Education	High school or below	87	20.9%
Education	Associate degree	103	24.7%
Education	Bachelor's degree	169	40.5%
Education	Master's degree	43	10.3%
Education	Doctorate or above	15	3.6%
Monthly income	Below 3,000 RMB	62	14.9%
Monthly income	3,001-6,000 RMB	120	28.8%

Variable	Category	Frequency	Percentage
Monthly income	6,001-10,000 RMB	117	28.1%
Monthly income	10,001-20,000 RMB	83	19.9%
Monthly income	Above 20,000 RMB	35	8.4%
Xiaomi product categories purchased	Smartphones	416	99.8%
Xiaomi product categories purchased	Smart home products	216	51.8%
Xiaomi product categories purchased	Wearable devices	189	45.3%
Xiaomi product categories purchased	Xiaomi EV	63	15.1%
Purchase channel	Official online channels	143	34.3%
Purchase channel	E-commerce platforms	174	41.7%
Purchase channel	Offline stores	77	18.5%
Purchase channel	Other channels	23	5.5%
Products currently used	1 item	81	19.4%
Products currently used	2-3 items	153	36.7%
Products currently used	4-5 items	125	30.0%
Products currently used	6 items or more	58	13.9%
Duration of use	Less than 6 months	41	9.8%
Duration of use	6 months-1 year	71	17.0%
Duration of use	1-3 years	167	40.0%
Duration of use	More than 3 years	138	33.1%
Community/user interaction frequency	Never participated	164	39.3%
Community/user interaction frequency	Occasionally participated	174	41.7%
Community/user interaction frequency	Frequently participated	79	18.9%

Note: Xiaomi product categories purchased was a multiple-response question. Percentages for this item are based on 417 respondents and may sum to more than 100%. Minor discrepancies in other percentage totals may result from rounding.

3.3 Data Analysis Methods

The data analysis followed a two-stage procedure. First, SPSS was used for preliminary data screening, descriptive statistics, reliability analysis, exploratory factor analysis, correlation analysis, common method bias assessment, and observed-score

regression analysis. Reliability was assessed using Cronbach's Alpha, while preliminary construct validity was examined using KMO, Bartlett's test of sphericity, exploratory factor analysis, and rotated factor loadings. Pearson correlation analysis was used to examine preliminary relationships among the variables. Harman's single-factor test was conducted to assess potential common method variance.

Second, AMOS was used for confirmatory factor analysis, structural equation modeling, and Bootstrap mediation testing. EFA was used as a preliminary examination of the dimensional pattern of the contextualized measurement items, whereas CFA subsequently tested the hypothesized five-factor measurement structure while accounting for measurement error. Model fit was evaluated using χ^2/df, CFI, TLI, RMSEA, RMR, and SRMR; χ^2/df < 3, CFI and TLI > .90, and RMSEA and SRMR < .08 were treated as general indicators of acceptable fit (Hair et al., 2018). Composite Reliability (CR), Average Variance Extracted (AVE), standardized factor loadings, and HTMT ratios were examined to evaluate construct reliability and convergent and discriminant validity. Bootstrap analysis with 5,000 samples and 95% bias-corrected confidence intervals was used to test indirect effects following Preacher and Hayes (2008).

The analysis was conducted at two complementary levels. Overall Brand Value Co-creation was examined using an observed composite score to provide preliminary evidence regarding the general relationship of BVC with Consumer Satisfaction and Brand Loyalty. The three BVC dimensions—Participation Behavior, Interactive Experience, and Co-creation Cognition—were then modeled separately as latent variables in SEM to determine whether their relationships differed after accounting for measurement error and the simultaneous effects of the other dimensions. Accordingly, the aggregate BVC results were treated as preliminary evidence, whereas the dimension-level SEM and Bootstrap results formed the primary basis for hypothesis evaluation.

4. Results and Discussions

4.1 Reliability, Validity, and Descriptive Statistics

The reliability results show that the Cronbach's Alpha coefficients of all core variables were higher than 0.80, and the total scale reached 0.904. These values indicate good internal consistency. The KMO value was 0.912, and Bartlett's test was significant at $p<0.001$, showing that the sample was suitable for factor analysis. Five common factors were extracted, explaining 57.48% of the total variance and thus capturing more than half of the variance in the 30 items. Factor loadings were above 0.60, providing preliminary support for the proposed multidimensional structure; this exploratory result was subsequently evaluated through CFA.

Table 4 Reliability Analysis. **Source**: Author's analysis of the survey data (2026).

Construct	Number of Items	Cronbach's Alpha
Participation Behavior	4	0.843
Interactive Experience	4	0.851
Co-creation Cognition	4	0.848
Brand Value Co-creation	12	0.868
Consumer Satisfaction	8	0.868
Brand Loyalty	10	0.872
Total scale	30	0.904

Table 5 KMO and Bartlett's Test. **Source**: Author's analysis of the survey data (2026).

Test item	Statistic	Result
KMO value	0.912	Suitable for factor analysis
Bartlett's test approximate chi-square	5124.324	Significant
Degrees of freedom	435	-
Significance	<0.001	p<0.001

Table 6 Descriptive Statistics of Core Variables. **Source**: Author's analysis of the survey data (2026).

Variable	Minimum	Maximum	Mean	Standard Deviation
Participation Behavior	1.00	5.00	3.66	0.91
Interactive Experience	1.00	5.00	3.72	0.87
Co-creation Cognition	1.00	5.00	3.72	0.90
Brand Value Co-creation	1.50	5.00	3.70	0.69
Consumer Satisfaction	1.00	5.00	3.81	0.82
Brand Loyalty	1.60	5.00	3.75	0.81

The descriptive statistics show that Consumer Satisfaction had the highest mean value (M=3.81), followed by Brand Loyalty (M=3.75). The overall mean of Brand Value Co-creation was 3.70. Interactive Experience and Co-creation Cognition both had mean values of 3.72, while Participation Behavior had a slightly lower mean value of 3.66. This pattern suggests that respondents generally recognized Xiaomi's interaction and co-creation value, but actual participation behavior still has room for improvement.

Table 7 Pearson Correlation Matrix. **Source**: Author's analysis of the survey data (2026).

Variable	PB	IE	CC	BVC	CS	BL
PB	1	0.371**	0.422**	0.781**	0.310**	0.305**
IE	0.371**	1	0.380**	0.749**	0.241**	0.248**
CC	0.422**	0.380**	1	0.782**	0.302**	0.307**
BVC	0.781**	0.749**	0.782**	1	0.370**	0.372**
CS	0.310**	0.241**	0.302**	0.370**	1	0.367**
BL	0.305**	0.248**	0.307**	0.372**	0.367**	1

Note: ** p<0.01. PB = Participation Behavior; IE = Interactive Experience; CC = Co-creation Cognition; BVC = Brand Value Co-creation; CS = Consumer Satisfaction; BL = Brand Loyalty.

Table 8 CFA Reliability and Convergent Validity. **Source**: Author's analysis of the survey data (2026).

Construct	CR	AVE
Participation Behavior	0.844	0.575
Interactive Experience	0.852	0.590
Co-creation Cognition	0.848	0.583
Consumer Satisfaction	0.868	0.453
Brand Loyalty	0.872	0.406

The CFA results showed standardized factor loadings ranging approximately from 0.601 to 0.797. Composite Reliability values ranged from 0.844 to 0.872, exceeding the commonly used 0.70 criterion (Hair et al., 2018). AVE exceeded 0.50 for Participation Behavior, Interactive Experience, and Co-creation Cognition, whereas Consumer Satisfaction (AVE = 0.453) and Brand Loyalty (AVE = 0.406) were below the conventional 0.50 benchmark. Therefore, convergent validity for Consumer Satisfaction and Brand Loyalty should be interpreted as marginal rather than unequivocally strong, although their Composite Reliability values remained acceptable.

Table 9 Discriminant Validity Assessment Using HTMT Ratios. **Source**: Author's analysis of the survey data (2026).

	PB	**IE**	**CC**	**CS**	**BL**
PB	—				
IE	0.437	—			
CC	0.500	0.448	—		
CS	0.362	0.279	0.352	—	
BL	0.356	0.289	0.358	0.421	—

All HTMT ratios ranged from 0.279 to 0.500 and were below the conservative threshold of 0.85 (Henseler et al., 2015), providing evidence that the five constructs were empirically distinguishable.

Table 10 Model Fit Indices for CFA and SEM. **Source**: Author's analysis of the survey data (2026).

Model	**χ^2**	**df**	**χ^2/df**	**CFI**	**TLI**	**RMSEA**	**RMR**	**SRMR**
CFA measurement model	434.733	395	1.101	.992	.991	.016	.044	.035
SEM structural model	434.733	395	1.101	.992	.991	.016	.044	.035

Both the CFA measurement model and the SEM structural model showed good overall fit (χ^2 = 434.733, df = 395, χ^2/df = 1.101, CFI = .992, TLI = .991, RMSEA = .016, RMR = .044, SRMR = .035). The AMOS output produced identical global fit statistics for the CFA measurement model and the SEM structural model.

4.2 AMOS Structural Model and Mediation Results

The correlation results indicate significant positive relationships among the core variables, providing preliminary support for the theoretical framework. However, correlations and observed-score regressions do not account for measurement error or test all paths simultaneously. Therefore, the final model was evaluated using AMOS structural equation modeling. The SEM model specified Participation Behavior, Interactive Experience, and Co-creation Cognition as exogenous latent variables, Consumer Satisfaction as the mediating variable, and Brand Loyalty as the outcome variable.

Table 11 AMOS Structural Path Coefficients. **Source**: Author's analysis of the survey data (2026).

Hypothesis	**Path**	**Estimate**	**S.E.**	**C.R.**	**p-value**	**Standardized β**	**Result**
H1a	PB → CS	.199	.063	3.161	.002	.218	Supported
H1b	IE → CS	.081	.056	1.439	.150	.092	Not Supported
H1c	CC → CS	.191	.064	2.979	.003	.205	Supported

Hypothesis	Path	Estimate	S.E.	C.R.	p-value	Standardized β	Result
H2a	PB → BL	.129	.062	2.092	.036	.140	Supported
H2b	IE → BL	.074	.055	1.350	.177	.084	Not Supported
H2c	CC → BL	.134	.063	2.131	.033	.142	Supported
H3	CS → BL	.299	.063	4.779	<.001	.296	Supported

AMOS results show that Participation Behavior significantly predicted Consumer Satisfaction and Brand Loyalty, supporting H1a and H2a. Co-creation Cognition also significantly predicted Consumer Satisfaction and Brand Loyalty, supporting H1c and H2c. Consumer Satisfaction significantly predicted Brand Loyalty, supporting H3. However, Interactive Experience did not significantly predict Consumer Satisfaction or Brand Loyalty in the final AMOS model. Therefore, H1b and H2b were Not Supported. A positive coefficient was not treated as support unless the p-value was below 0.05.

Table 12 Bootstrap Mediation Test Results. **Source**: Author's analysis of the survey data (2026).

Hypothesis	Mediation Path	Indirect Effect	95% Bias-corrected CI	p-value	Result	Mediation Type
H4a	PB → CS → BL	.059	[.022, .116]	.002	Supported	Partial mediation
H4b	IE → CS → BL	.024	[-.007, .068]	.121	Not Supported	No significant mediation
H4c	CC → CS → BL	.057	[.019, .114]	.002	Supported	Partial mediation

AMOS Bootstrap results show that the indirect effect of Participation Behavior on Brand Loyalty through Consumer Satisfaction was significant because the 95% bias-corrected confidence interval did not include zero. The indirect effect of Co-creation Cognition was also significant. Therefore, H4a and H4c were Supported. In contrast, the indirect effect of Interactive Experience through Consumer Satisfaction was not significant because the confidence interval included zero. Therefore, H4b was Not Supported. These results indicate that the mediating role of Consumer Satisfaction should be interpreted dimensionally rather than as equally valid for all three co-creation dimensions.

4.3 Discussions

At the aggregate observed-score level, Brand Value Co-creation was positively associated with Consumer Satisfaction and Brand Loyalty, consistent with Value Co-creation Theory and Service-Dominant Logic. Brand value co-creation may therefore be associated with more favorable brand evaluations and perceived value.

At the dimension level, Participation Behavior and Co-creation Cognition were significantly associated with Consumer Satisfaction, whereas Interactive Experience was not significant when the other dimensions were considered simultaneously. Nadeem et al. (2021) similarly reported positive relationships between consumer engagement, satisfaction, and brand loyalty. Huang and Suo (2021) found that different forms of customer interaction

were associated with different dimensions of experience value and participation in value co-creation. Bu et al. (2020) found that practical and social values predicted loyalty, whereas entertainment value did not. Although these studies examined different constructs and models, they support distinguishing forms of participation and experience rather than assuming that all contribute equally to relational outcomes.

For Brand Loyalty, Participation Behavior and Co-creation Cognition were significantly associated with Brand Loyalty, while Interactive Experience was not significant in the final structural model. This suggests that long-term brand support may depend more on active contribution and perceived recognition than on interaction frequency alone.

5. Conclusion

5.1 Research Limitations

This study has several limitations. First, the online convenience sample may overrepresent digitally active Xiaomi users and should not be treated as representative of all Xiaomi customers. Second, the study focuses on Chinese Xiaomi users, limiting generalizability to other brands, countries, or non-platform contexts. Third, the cross-sectional design identifies associations but cannot establish causal relationships over time. Future research may examine additional mediators such as brand trust, identification, switching cost, community belonging, and perceived value, and may further separate different aspects of Interactive Experience.

5.2 Implications

Preliminary observed-score analysis showed that overall Brand Value Co-creation was positively associated with Consumer Satisfaction and Brand Loyalty. Consumer Satisfaction also predicted Brand Loyalty and partially mediated the relationships of Participation Behavior and Co-creation Cognition with Brand Loyalty.

Dimension-level analysis showed that Participation Behavior and Co-creation Cognition significantly predicted both Consumer Satisfaction and Brand Loyalty, whereas Interactive Experience was nonsignificant in the final AMOS model. The Bootstrap results further supported mediation through Consumer Satisfaction for Participation Behavior and Co-creation Cognition, but not for Interactive Experience. These findings suggest that Xiaomi should emphasize meaningful participation, visible feedback adoption, and recognition of user contributions.

The study contributes to Value Co-creation Theory by showing that Brand Value Co-creation is not necessarily homogeneous within a platform ecosystem. Participation Behavior, Interactive Experience, and Co-creation Cognition showed different relationships with Consumer Satisfaction and Brand Loyalty, highlighting the value of dimension-level analysis.

For startups and creative entrepreneurs, the findings suggest that low-cost co-creation mechanisms, such as structured feedback and visible contributor recognition, may be more useful than investing heavily in complex interaction infrastructure.

6. Recommendations

Xiaomi should improve the effectiveness and visibility of user participation by providing structured feedback channels, transparent progress updates, and visible recognition of useful contributions. Because Participation Behavior and Co-creation Cognition were significantly associated with both Consumer Satisfaction and Brand Loyalty, users should be able to see whether and how their input contributes to product and service improvement. Interaction should therefore focus on problem solving and meaningful outcomes rather than frequency alone.

For startups and creative entrepreneurial ventures, simple mechanisms such as structured feedback channels, contributor recognition, beta-user programs, and transparent feedback updates may provide practical co-creation benefits without requiring large-scale technological investment.

7. Acknowledgements

The author would like to express her sincere gratitude to Professor Nutteera Phakdeephirot for her valuable guidance, professional advice, patience, and continuous support throughout this research. The author also appreciates the faculty members of the Rattanakosin International College of Creative Entrepreneurship, Rajamangala University of Technology Rattanakosin, for their academic support. Sincere thanks are extended to all respondents who participated in the questionnaire survey and to everyone who assisted with the distribution of the questionnaire. Finally, the author would like to thank her family, classmates, and friends for their encouragement and support during the completion of this study.

8. Conflict of Interest

The author declares that there is no conflict of interest regarding the publication of this article.

9. Author's Biography

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