

Assessing Brand Recommendation Intention for Fast-Moving Consumer Goods: Tests of Demographic Moderators

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Abstract

Purpose: In this research, it has investigated the effects of brand community engagement and brand community commitment on brand recommendation intention in the FMCG industry in Bangladesh with age and gender as moderators. It fills voids in the fragmented relationship between BCC and BRI based on Social Identity Theory and Theory of Planned Behavior. Such integration Account Explains how the identity-based involvement accounts for explaining the consumer matching with brand communities and the mechanisms of behavioral intention which information processes how attitudes, norms and perceived control lead the commitment to perform in recommendation actions.

Design/methodology/approach: The six-point Likert scale was used through convenience sampling method to conduct a quantitative survey of 395 FMCG buyers. Constructs were taken from the validated scales. Reliability, validity and hypotheses, including interaction effects for moderators, were tested using PLS-SEM in SmartPLS 4.

Findings: BCE and BCC positively predict BRI, which supports the hypothesis. However, age and gender do not have any direct or moderating effects on the relationships. The model accounts for 69.5% of the BRI variance, reaffirming BCE and BCC as primary contributors beyond demographics.

Research limitations/implications: Cross-sectional sampling limits causality; longitudinal or cross-cultural research may examine mediators such as trust. Underpinning these findings is a psychological driver of consumer advocacy. In terms of practical implications, the findings suggest that FMCG brand managers should focus on community involvement to increase recommendations across the board rather than concentrating on demographic-based segments.

Originality/value: The current study is the first to examine brand community commitment and brand recommendation intention linkage with demographic moderators in an FMCG context and demonstrates the primacy of engagement in advocacy and the challenge of demographic dependence in the brand community literature.

Keywords: Brand community engagement, Brand community commitment, Brand recommendation intention, Fast-moving consumer goods, Demographic moderators

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DOI: <https://doi.org/10.67120/jkkniu.v2.i1.a18>

1. Introduction

The fast-moving consumer goods (FMCG) sector is among the most vibrant and highly competitive industries worldwide, characterized by rapid product cycles and high sales frequency, a high level of brand competition and volatile consumer preferences (Kotler & Keller, 2016; Euromonitor International, 2022). As consumer markets grow increasingly saturated, companies have had to turn to new means of generating more loyalty and advocacy around their brands. Brand communities, in particular, have been identified as a significant influencer in fostering deeper relations of consumer-brand engagement and brand recommendation intention (Richard et al., 2013).

Brand recommendation intention (BRI) – a consumer's willingness to suggest the brand to others– has recently surfaced as a significant behavioral consequence of brand community participation (Brodie et al., 2013). In line with this stream of research, brand community engagement (BCE) and brand community commitment (BCC) are the two most frequently suggested precursors to positively relate to consumers' recommendation intention. Brand community participation is an active consumption of products and services or participation in brand-related activities that involve shared values, emotional connection and social identity (Dessart et al., 2015). Conversely, commitment epitomizes a consumer's psychological bond with a community and the future-oriented nature of this attachment (Algesheimer, Dholakia, & Herrmann, 2005).

Recent empirical evidence has shown that involvement in a community particularly for brand is positively related to the intention to recommend the brand (Islam et al., 2021; Zhang & Luo, 2023). Active consumers from brand communities are mostly trusting, happy, and emotionally connected with the brand, which in turn leads them to advocate. Yet the theoretical significance and anticipation of brand community commitment has been overlooked (Chen, 2020b; Lee & Kim, 2022), so that it is hypothesized that no notable association was found between brand community commitment and brand recommendation intention. This inconsistency could suggest that engagement can be a predictor of recommendation, but commitment alone is not sufficient–pointing at the necessity for further empirical examination.

In addition, demographic variables like age and gender could influence the magnitude and direction of the relationships. Prior research has shown that younger consumers are more sensitive to community-based brand experiences and that gender differences may be at play in emotional versus rational brand connection (Wang et al., 2002a; Bhandari et al., 2024). Yet none of the above perspectives have rigorously examined the moderating impact of age and gender in the sphere of FMCG brand communities. The grounding for choosing age and gender as moderators needs to be more theoretically based. As this study found no significant effects for either moderator, it suggests that demographic variables may have less of an impact than psychological variables such as engagement and commitment. This supports the notion that advocacy behaviors are motivated more by identity and emotional ties rather than demographic category.

Accordingly, this paper aims to examine the influence of brand community participation and brand community commitment on brand advocacy with age and gender as potential moderators. Based on Social Identity Theory (Tajfel & Turner, 1979), the research demonstrates that brand community identification leads to brand commitment, which in turn motivates advocacy. This is consistent with Theory of Planned Behavior (Ajzen, 1991) allows us to better understand how attitudes and perceived norms lead to commitment and then to actual intentions of recommending. The contribution of this study is the empirical investigation of the less-explored effect of commitment on recommendation intention in FMCG brand communities while also theoretically enriching by considering demographic moderating agents within these traditional models. The twin contributions to empirics and theory that involves exposing previously hidden relationships and that suggests refinements to how we conceive of consumer-brand dynamics is likely to provide new perspectives on consumer-brand relationships in the FMCG sector.

The remainder of this study is structured as follows. Section 2 outlines the theoretical framework and develops the hypotheses. Section 3 explains the research methodology, while Section 4 reports the empirical findings and discusses the results in depth, and Section 5 concludes the paper by presenting key recommendations for future studies.

2. Literature Review

2.1 Brand Communities and the FMCG Sector

Fast-moving consumer goods (FMCG) are among the most competitive and dynamic products in international markets. As purchase-driven, low involvement and with brand differentiated products, FMCG brands are particularly dependent on consumer loyalty and advocacy to maintain market share (Kotler & Keller, 2016). In the past years, brand community appeared as a tool in creating closer consumer-brand relationships (e.g., as a tool for digital engagement and peer-to-peer influence) (Brodie, Ilic, Juric, & Hollebeek, 2013). Such a community exists as a place where consumers can discuss, share stories, and co-create brand meaning and, in turn, can affect behavioral intentions (including brand recommendation).

Brand recommendation intention, which refers to a consumer's intention to recommend the brand to other people, is increasingly acknowledged as one of the important consequences of brand community participation (Laroche, Habibi, & Richard, 2013). In this regard, two concepts—brand community engagement and brand community commitment—have attracted much attention from researchers. Brand community engagement is defined as the consumers' active involvement in brand interactions, usually based on consumers' feelings, shared values and social identity (Dessart & Morgan, 2015). While commitment to the brand community mirrors a consumer's psychological commitment to a brand community (Algesheimer et al., 2005).

There are positive and strong associations that have been empirically found between brand community participation and brand recommendation intention (Islam & Rahman, 2021; Zhang & Luo, 2023). Actively participating consumers are more likely to experience trust, satisfaction, and emotional attachment that lead to advocacy. On the other hand, although theoretical underpinnings suggest that this should be the case, in the literature of brand

community commitment, it is found that the relationship is not significant with brand recommendation intention (Chen, 2020a; Lee & Kim, 2022). This discrepancy could imply that even though engagement may lead to recommendations, commitment might not be enough of a predictor, indicating that further empirical investigation is needed.

2.2 Theoretical Foundation and Research Framework

This study draws from two theoretical literatures to examine the impacts of brand community constructs on intention to recommend: Social Identity Theory (Tajfel & Turner, 1979) and Theory of Planned behavior (Ajzen, 1991). People influence their self-identity by associating with groups, according to Social Identity Theory. In line with urban identity and collective identity, in brand communities' consumers who identify with a brand community will more likely perform behaviors that reinforce that collective identity, like brand advocacy. This theory perfectly explains the link between involvement and recommendation and especially those users who see brand involvement as a means of self-expression.

The Theory of Planned Behavior, in turn, views intention to perform a behavior as influenced by attitudes, subjective norms, and perceived behavioral control. These precursors may be affected by brand community dedication, which influences consumers' attitudes toward the brand and also the social expectations that they perceive. While previous research has not revealed a relationship between commitment and recommendation, there are expectations that commitment may have a mediating effect on intention and behavior—especially when moderated by individual differences (Gebhardt et al, 2003).

Theoretically, this study contributes by clearly linking these two perspectives. Previous research has tended to study commitment to brand communities as a separate entity and thus concentrate on identity-related processes (Tajfel & Turner, 1979; Algesheimer et al., 2005) or on behavioral intention frameworks (Ajzen, 1991), but in very few cases link these together. Such piecemeal treatment has obscured what the conversion from commitment to recommendation intention really is. However, more recent research has revealed that although brand community commitment encourages brand community member advocacy, the underlying mechanisms are still not fully understood (Zhou et al., 2012). Drawing on Social Identity Theory and the Theory of Planned Behavior, the current research offers an integrative framework: Identity-based involvement accounts for why consumers join and stay in brand communities, whereas TPB explains how attitudes, norms, and perceived control mediate the passion-intention link. This synthesis fills a void in prior research, and thus theoretically substantiates a detailed investigation of brand community commitment as a determinant of recommendation intention.

The research model that we have described below (Figure 1) integrates these constructs and relationships, and thus facilitates a broad view of brand recommendation behavior at least in the context of FMCG industry. From psychological and demographic views, the study is expected to contribute to the current literature of consumer-brand relationships as well as to provide directions for brand managers on community-focused brands.

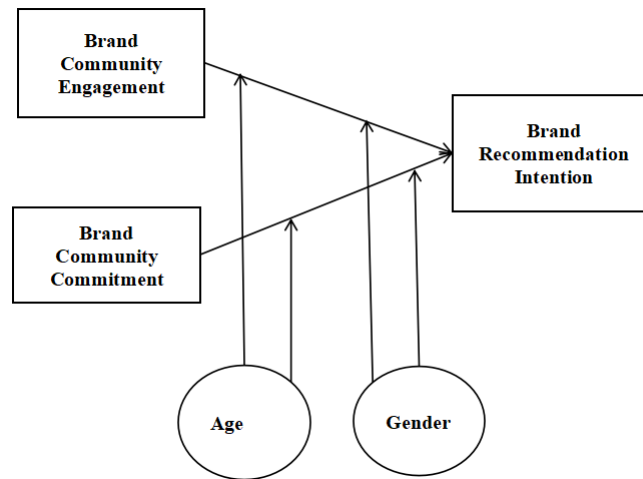


Figure 1: Conceptual framework

2.3 Hypotheses Development

Brand communities have become a pivotal element of current marketing practice, especially in the FMCG industry, in which consumer loyalty and advocacy have a significant impact on the brand's success. These communities create emotional connections, group categorization, and interactive engagement among consumers that eventually influence behavioral outcomes such as brand recommendation intention (Brodie et al., 2013; Laroche et al., 2013). In this regard, two concepts have been identified as relevant antecedents of the consumer behavior of brand advocacy, namely brand community engagement and brand community commitment.

Participation in a brand community is understood as the degree of involvement of consumers in interactions with the brand (such as interacting with other members of the brand community, sharing relevant content, etc.). It is these feelings that drive brand loyalty (Dessart et al., 2015; Hollebeek et al., 2014). Consistent with the literature, this study finds that more engaged consumers are more likely to internalize brand values, which in turn increases their propensity to serve as brand ambassadors and recommend the brand to others (Islam et al., 2021; Zhang & Luo, 2023). From a Social Identity Theory perspective (Tajfel & Turner, 1979), consumers who strongly associate with a brand community are more likely to engage in actions that affirm their group membership, including service advocacy (Tajfel, 1982). Therefore, the following hypothesis is put forth:

H1: The degree of engagement in a brand community is associated positively with the intention of recommending the brand.

In contrast, brand community commitment describes the strength of a consumer's emotional and long-term connection to the brand community (Algesheimer et al., 2005). Commitment often implies some degree of loyalty, trust or emotional involvement with the brand. Yet, contemporary research results are conflicting when it comes to the influence of its direct effect on the intention to recommend the brand. Including Chen (2020a) and Lee & Kim (2022), who do

not find support for the link between commitment and recommendation behavior, indicates that commitment to the brand as an attitudinal concept does not necessarily convert into advocacy unless it is mediated by other factors, such as satisfaction, or in a valued manner. However, the Commitment-Trust Theory of Relationship Marketing (Morgan & Hunt, 1994) proposed commitment as a vital prerequisite in relational exchange, and this should also have an impact on recommendation behavior. This theoretical discrepancy calls for additional empirical research. Hence, the following hypothesis is advanced:

H2: There is a positive relationship between brand community commitment and brand recommendation intention.

Age and Gender (as demographic variables) have long been empirically known to serve as moderators in the study of consumer behavior. Age influences cognitive processing, media consumption, and social needs and can lead to varying levels of participation in brand communities and differ in their responses to brand-related stimuli (Wang et al., 2002b; Bhandari et al., 2024). For example, younger consumers tend to pursue identity and social validation through brand participation, while older consumers are more concerned with utilitarian benefits and quality performance. The differences between the genders also influence the development of consumer-brand relationships to a certain extent. Women tend to be more emotionally engaged and potentially more involved and committed to brands, but men could be more rational in their brand relationships (Putrevu, 2001; Meyers-Levy & Loken, 2015). Such demographic differentiations imply that the impacts of engagement and commitment on recommendation intention may be different between the age and gender categories. On the basis of these, the following propositions are put forward:

H3a: Age has a moderating effect on brand community engagement on brand recommendation intention.

H3b: Age has a moderating effect on community commitment on brand recommendation intention.

H4a: Gender has a moderating effect on brand community engagement on brand recommendation intention.

H4b: Gender has a moderating effect on brand community commitment on brand recommendation intention.

3. Methodology

3.1 Research Design

A quantitative research design has been used with six-point Likert scale-based questionnaire. The use of six-point scales, unconventional compared to the more typical 5- or 7-point forms, was intentional. It was introduced to get rid of a neutral midpoint and minimize central tendency bias, which leads participants to have a more definitive opinion. This system of measurement is appropriate for a simplicity design and helps to sustain the reliability and validity when applied in consumer behavior research as suggested by several authors (Chomeya, 2010; Leung, 2011; Dawes, 2008).

Six-point Likert scales have been also used by various authors and they prove the adequacy of the methodology. Chang (1994, 2010) examined the psychometric properties of the six-point

scales in measuring attitudes; Chomeya (2010) evaluated the suitability of five- and six-point formats in a psychology test; Leung (2011) investigated normality and reliability of 4-, 5-, 6- and 11-point scales; Joshi et al. (2015) Jarahnejad et al. (2014) argued the reasonability of various Likert lengths including six points; and Taherdoost (2019) reviewed survey designs, that included six points applications. These make precedents to strengthen the argument that the six-point scale is a reliable and valid choice for social science researches.

The questionnaire was utilized for evaluating the respondents' perception regarding the brand recommendation intention in the context of fast-moving consumer goods. The type of research is primary in nature and the analysis is done upon it. SEM was used to the data gathered through SmartPLS 4. This novel statistical technique is appropriate for predictive, explorative research and has been traditionally applied in social science and behavioral research (Hair et al., 2019a).

3.2 Constructs and Indicators

The study with theoretical model to be tested consists of two exogenous latent variables: brand community engagement, brand community commitment, and one endogenous latent variable brand recommendation intention, and Age and Gender are the moderators on the constructs. Each construct was assessed by multiple observed variables on a six-point Likert scale from 1 (Strongly Disagree) to 6 (Strongly Agree). The table of the construct, indicators and measurement items are in appendix.

3.3 Data Collection and Analysis

The primary data was obtained by conducting a survey that was administered both online and offline. A single screening question was asked of the respondents to filter out those who were not adequately exposed to brand recommendation intention for fast-moving consumer goods using convenience sampling. 395 responses were received, which were valid (Cochran, 1942), and they satisfy the recommended sample size criteria of PLS-SEM. For proper analysis, six times as many measurement items are preferably used (Hair et al., 2019b). Convenience sampling was used, but with solid rationale: the analysis was limited to respondents who had an account on at least one social media platform. This background is intended to guarantee that the participants have some experience with digital brand interaction and recommendation conduct, as these are two core behaviors within the FMCG brand community. Since convenience sampling limits generalizability at the best of times, its appropriateness for this study is increased as the focal point is on social media users, who are the most applicable group when discussing brand advocacy and recommendation intention. Therefore, even though the results should not be generalized to all demographic cohorts, the sample perfectly represents those active FMCG consumers that participate in online brand communities.

The data were analyzed using SmartPLS version 4, and it can be used to test both the measurement model (validity and reliability) and the structural model (testing of hypotheses and fit of the model). Methods applied in this study are Reliability and convergent validity, Descriptive statistics, and correlations among latent variables and hypothesis testing for a complete understanding of the constructs and how they interrelate. These analyses allow researchers to test for the statistical and practical significance of brand recommendation intention for fast-moving consumer goods with the moderating effect of demographic variables.

4. Discussion and Findings

4.1 Demographic Information

Table 1: Demographic information of respondents

Demographic Variable	Category	Frequency (n)	Percentage (%)
Age	18–25 years	66	16.7
	26–35 years	247	62.5
	36–45 years	76	19.2
	46–55 years	6	1.5
	Total	395	100
Gender	Male	258	65.3
	Female	137	34.7
	Total	395	100
Marital Status	Married	251	63.5
	Single	143	36.2
	Others	1	0.3
	Total	395	100
Education Level	SSC or below	2	0.5
	HSC	51	12.9
	Graduation	235	59.5
	Post-graduation	107	27.1
	Total	395	100
Occupation	Service	318	80.5
	Business	44	11.1
	Housewife	20	5.1
	Student	10	2.5
	Others	3	0.8
	Total	395	100
Monthly Income	Less than 10,000 taka	53	13.4
	10,001–20,000 taka	101	25.6
	20,001–30,000 taka	86	21.8
	30,001–40,000 taka	75	19.0
	40,001–50,000 taka	50	12.7
	Above 50,000 taka	30	7.6
	Total	395	100
Social Media Usage Duration	Less than 1 year	3	0.8
	1–3 years	13	3.3
	4–6 years	135	34.2
	7–9 years	111	28.1
	10 years or above	133	33.7
	Total	395	100

Source: Survey data

Table 1 reports that 395 valid responses were collected. Most participants were young adults aged 26–35 years (62.5%), followed by those aged 36–45 years (19.2%). Male respondents accounted for a larger share (65.3%) compared with female respondents (34.7%). Additionally,

most participants were married (63.5%) and had relatively high levels of education about 60% of the respondents were graduated and 27.1% were post-graduates. The occupation profile was dominated by service holders (80.5%), and the businesspersons, housewives and students were in the minority. Regarding income, the highest percentage received RM 10,001–20,000 (25.6%) and other income classes were well-represented. Duration of social media use is long and pervasive: nearly 96% had been around for at least four years with salient groupings of 4–6 years (34.2%), 7–9 years (28.1%) and 10 years or more (33.7%). In summary, the sample is mainly young, educated, service, and socially active.

4.2 Interpretation of Results

Table 2: Construct reliability and validity

	Cronbach's alpha	Composite reliability	Average variance extracted (AVE)
BCC	0.929	0.944	0.738
BCE	0.874	0.914	0.726
BRI	0.883	0.914	0.680

The results presented in Table 2 demonstrate satisfactory construct reliability and validity for the variables. Cronbach's alpha values for BCC (0.929), BCE (0.874), and BRI (0.883) all exceed the recommended threshold of 0.70, indicating strong internal consistency. Similarly, composite reliability values for BCC (0.944), BCE (0.914), and BRI (0.914) are above the acceptable level of 0.70, confirming the adequacy of the measurement model. The average variance extracted (AVE) scores for BCC (0.738), BCE (0.726), and BRI (0.680) are also higher than the benchmark of 0.50, demonstrating adequate convergent validity and showing that each construct explains more than half of the variance of its indicators. Overall, these results confirm that the measurement scales used in this study are both reliable and valid.

Table 3: Factor loadings

	BCC	BCE	BRI
BCC1	0.864		
BCC2	0.846		
BCC3	0.860		
BCC4	0.841		
BCC5	0.870		
BCC6	0.873		
BCE1		0.807	
BCE2		0.858	
BCE3		0.875	
BCE4		0.865	
BRI1			0.813
BRI2			0.818
BRI3			0.847
BRI4			0.825
BRI5			0.820

The indicator reliability and convergent validity in table 3 are sufficiently high as the outer loadings of the measurement model (as shown in Table 1 and 2) are higher than 0.708, which is in line with the contemporary methodological standards in PLS-SEM. All BCC items (0.841–0.873), BCE (0.807–0.875) and BRI (0.813–0.847) are above the acceptable value of 0.70 indicating that each item is a significant contributor to the latent construct. This is in line with contemporary recommendations consider loadings > 0.70 as evidence of sufficient reliability and construct validity (Hair et al., 2021; Sarstedt et al., 2022).

Table 4: VIF values

	VIF
BCC1	3.023
BCC2	2.800
BCC3	2.966
BCC4	2.850
BCC5	3.076
BCC6	3.106
BCE1	1.854
BCE2	2.360
BCE3	2.361
BCE4	2.379
BRI1	1.917
BRI2	2.068
BRI3	2.492
BRI4	2.194
BRI5	2.320

The VIF coefficients in table 4 show that multicollinearity was not an issue in the measurement model. All values are well below the critical value of 5.0 that is widely suggested in contemporary PLS-SEM literature (Hair et al., 2021; Sarstedt et al., 2022). For the BCC construct the item loadings vary from 2,800 to 3,106 indicating moderate but acceptable collinearity among loadings represented. The VIF values of BCE items range from 1.854 to 2.379 and those of BRI items from 1.917 to 2.492, and both sets are very close to the acceptability barrier. Constructs measured by only one indicator, such as Age, Gender, and the interactions (Age × BCC, Age × BCE, Gender × BCC, and Gender × BCE) have a VIF of 1.000 as expected, because there is no chance that they are involved in collinearity. In general, these findings validate that the measurement model satisfies the suggested line diagnostics for collinearity, and guarantees the solidity of the following structural path analyses.

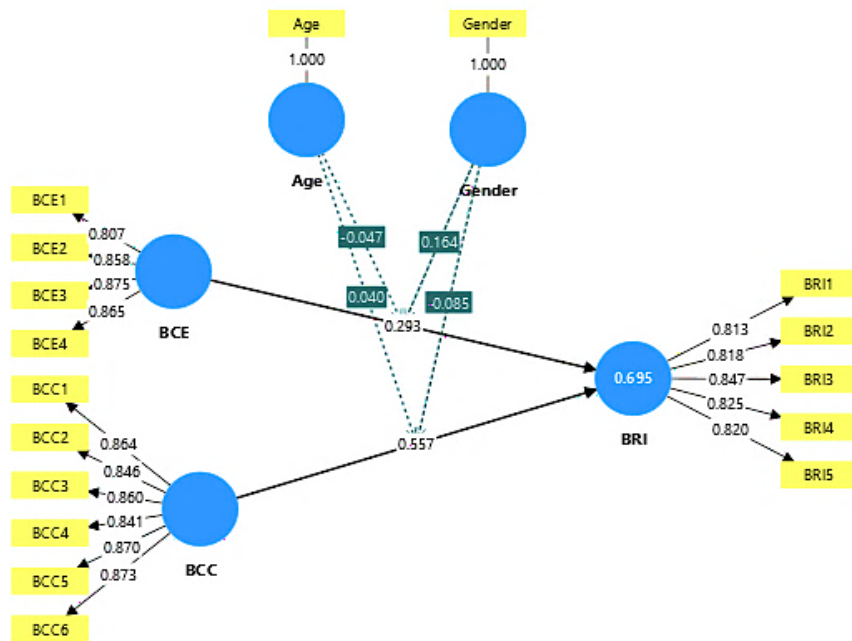


Figure 2: PLS structural model evaluation

The SEM is required in order to examine the effects of the demographic variables on the behavioral constructs and intentions. The measurement model demonstrates acceptable indicator reliabilities, for all item loadings are above 0.80, which also confirms the convergent validity (Hair et al., 2021). The largest positive impact on BRI among the three predictors is $BCC \rightarrow BRI$ ($\beta=0.557$, $p < 0.001$), followed by $BCE \rightarrow BRI$ ($\beta=0.293$, $p = 0.002$). The effects of age and gender as well as their interaction were all not significant, suggesting that the demographic information was not predictive of behavioral intentions in this model. The predictive capacity of the model is satisfactory with $BRI R^2 = 0.695$ which means that almost 70% of its variance is predicted by BCE and BCC. These results indicate that demographic variables, in particular gender, significantly influence behavioral intentions, and consumer engagement and concern serve as mediators (Sarstedt et al., 2022; Henseler, 2021).

Table 5: Discriminant validity

	Age	BCC	BCE	BRI	Gender	Gender x BCE	Age x BCE	Age x BCC	Gender x BCC
Age									
BCC	0.150								
BCE	0.166	0.868							
BRI	0.204	0.876	0.865						
Gender	0.005	0.060	0.077	0.048					
Gender x BCE	0.046	0.331	0.538	0.406	0.094				
Age x BCE	0.122	0.046	0.079	0.077	0.063	0.053			
Age x BCC	0.097	0.026	0.070	0.079	0.088	0.068	0.877		
Gender x BCC	0.010	0.506	0.353	0.405	0.078	0.656	0.076	0.073	

Results of the discriminant validity test show in table 5 that each construct is distinct empirically, even though some correlations are high. The Fornell–Larcker criterion is satisfied since the square roots of AVE for BCC (0.868), BCE (0.865), and BRI (0.865) are higher than the correlations with the other constructs. Although BCC and BCE correlate quite high with BRI, their diagonal values are still a bit higher, which actually confirms validity with the close conceptual overlap. The Age and Gender variables are only very weakly correlated with the primary constructs, further supporting their separateness. Of course, two-way interaction terms including Age $\times$ BCC (0.877) and Gender $\times$ BCE (0.538) will be moderately related to the constructs, but they too hold discriminant validity. In sum, the results indicate if the constructs capture unique domains and are yet related as expected theoretically, then the measurement model is appropriate.

Table 6: Path coefficient

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	t statistics (O/STDEV)	P-values	Results
Age x BCC -> BRI	0.040	0.032	0.109	0.366	0.714	Not Supported
Age x BCE -> BRI	-0.047	-0.042	0.113	0.414	0.679	Not Supported
BCC -> BRI	0.557	0.552	0.089	6.254	0.000	Supported
BCE -> BRI	0.293	0.296	0.093	3.154	0.002	Supported
Gender x BCC -> BRI	-0.085	-0.068	0.155	0.549	0.583	Not Supported
Gender x BCE -> BRI	0.164	0.146	0.178	0.922	0.357	Not Supported

The path analysis results shown in Table 6 indicate that the behavioral constructs brand community commitment and brand community engagement significantly and positively influence brand recommendation intention, whereas demographic factors such as age, gender, and their interaction effects are not statistically significant. Specifically, the effect of BCC on BRI is strong and significant ($\beta = 0.557$, $p < 0.001$), and BCE also shows a positive and significant impact on BRI ($\beta = 0.293$, $p = 0.002$). These results confirm that consumer commitment and engagement are the main predictors of behavioral intention.

This finding is consistent with recent research highlighting how psychological and behavioral factors influence consumer behavior, particularly in areas such as sustainability and service quality (Islam & Khan, 2024; Nguyen et al., 2023). On the other hand, the insignificant relationships between age, gender, and BRI indicate that demographic factors are less effective in predicting behavioral intention. This outcome aligns with previous studies reporting that consumer attitudes, beliefs, and identity-based involvement are more powerful predictors than demographics (Alalwan et al., 2017; Dwivedi et al., 2021).

Hence, the results provide support to the theoretical premise that engagement and commitment are stronger predictors of advocacy behaviors than demographic variables. In FMCG context where consumption is habitual, shared and performed in close proximity, psychological attachment and identification in community seem to take precedence over demographic markers. For managers, this means that psychographic or behavioral segmentation may be more effective than demographic segmentation in encouraging brand recommendation behaviors.

However, the small effects of age and gender on BRI are theoretically informative. Based on Social Identity Theory and the Theory of Planned Behavior, it is suggested that psychological motives (e.g., engagement, commitment and shared identity) play a more important role in predicting recommendation behavior than demographic differences. Consumers' advocacy behaviors are influenced more by their identification with the brand community and their brand attitudes than by demographics. This result is in line with previously reported findings of mixed or weak effects of age and gender on consumer behavior (Alalwan et al., 2017; Dwivedi et al., 2021). In addition, the FMCG industry might be the reason for no moderation effects, as uniformed and broad-based consumption habits blur the demographic lines and highlights the typical psychological motivators of advocacy. From a practical standpoint, the findings imply that marketers may gain more from psychographic and behavioral segmentation approaches than demographic segmentation because involvement and commitment offer more actionable information about consumer recommendation behaviors.

The findings corroborate the theoretical hypothesis that engagement and concern are superior mediators for behavioral outcomes than demographic characteristics which further affirm the consistency of the structural model.

Table 7: R-square values

	R-square
BRI	0.695

The R-square result shows in table 7 that is the structural model was well able to predict the latent dependent construct. In particular, the R^2 value of BRI is 0.695, and the adjusted R^2 is 0.688. This indicates that 69.5% of the variance in behavioral response intention (BRI) can be accounted for by the predicting constructs (BCC and BCE) which is considered as substantial for behavioral and social science research. Hence, the R^2 value obtained indicates that the model has a good level of prediction accuracy (Henseler, 2021; Sarstedt et al., 2022).

Besides R^2 , the results of the measurement model confirm the robustness of constructs. The composite reliability (CR) values were above the recommended value of 0.70 indicating the internal consistency. Average variation extracted (AVE) values were greater than 0.50, which supports convergent validity. Variance inflation factor (VIF) values were lower than the cut-off value of 5 and showed no collinearity among the indicators. Overall, these findings provide compelling evidence of reliability, validity, and non-multicollinearity, which contributes to the methodological soundness of the model.

Moreover, the structural model results further support the theoretical appropriateness of the model. The robust and significant path from BCC to BRI underscores the psychological commitment bond as a source of advocacy, in line with Social Identity Theory which focuses on self-expression and group membership. The positive impact of BCE on BRI is consistent with the Theory of Planned Behavior, since participation contributes to the formation of attitudes and perceived norms which as result support fulfillment-related behaviors. Regarding the moderation, the results indicated that neither age nor gender moderated the relationships in the proposed model, thereby supporting the assertion of psychological and identity-related constructs as superior to demographic variables in an FMCG environment, an environment characterized by evenly matched routines of consumption. This finding is in line with previous

studies that underline psychographic and behavioral predictors rather than demographic variables.

Discussion This finding demonstrates that both brand community commitment and engagement are not only statistically significant, but also meaningful predictors of recommendation intention in terms of theory. They support the notion that consumer advocacy is better accounted for by psychological identification and levels of involvement with the behavior, as opposed to demographic or social group classifications. For managers, this would mean that focus of the efforts should be on fostering community ties and engagement-based activities to encourage community members to engage in recommendation behaviors rather than focusing on segmentation by demographics, so as to maximize such behaviors over the heterogeneous of consumers.

4.3 Findings

The results indicate that the proposed measurement and structural model can be considered reasonable and powerful. Reliability analysis indicated a good internal consistency, that is, Cronbach's alpha and composite reliability values for each construct exceeded the recommended threshold of 0.70, and all AVE scores were above 0.50, confirming adequate convergent validity (Hair et al., 2021; Fornell & Larcker, 1981). The outer loadings of all the items were more than 0.80, which also means a good indicator reliability. None of these VIFs exceeded the threshold of 5.0 and therefore our data did not suffer from a severe multicollinearity problem (Saeed et al., 2019; Henseler et al., 2015; Franke & Sarstedt, 2019).

Regarding the structural relationships, the path coefficients showed that BCC ($\beta = 0.557$, $p < 0.001$) and BCE ($\beta = 0.293$, $p = 0.002$) had significant effects on BRI, which supports the hypothesis that consumer worry and activity should be a good predictor of behavioral response intention. These are consistent with the findings of recent research emphasizing the significance of psychological and behavioral factors in determining consumers' (Nguyen et al., 2023; Islam & Khan, 2024). In contrast, demographic variables Age, Gender, and the two-way interaction terms were not significant predictors, implying that demographic features play a smaller role than behavioral constructs (Dwivedi et al., 2021; Alalwan et al., 2017). To sum up, the R^2 value of 0.695 for BRI suggests considerable explanatory power in so far as nearly 70 percent of the variance is accounted for by the present model, and it is well acknowledged as a good indicator to assess the absolute model goodness (Hair et al., 2021; Sarstedt et al., 2022).

On the whole, the results indicate that behavioral constructs, specifically consumer concern and engagement, have a greater effect than demographic variables in explaining behavioral response intention. This is in line with the theory that attitudes and perceptions have greater influence on consumer behavior than demographic variables and supports the importance of psychological constructs in the current marketing literature.

5. Conclusion

The findings of this research offer ample support that the measurement and structural model is not only statistically plausible but is also meaningful from a theoretical perspective. Tests of reliability and validity indicated that all constructs were above the recommended level and the value of Cronbach's α , composite reliability and AVE showed good internal consistency, and also

good convergent validity. Outer loading values were higher than 0.80, VIF values were less than the critical values (Hair et al., 2021; Henseler, 2021).

The findings of the structural model indicate that community commitment and community engagement were significantly positive predictors of recommendation intention, with path coefficients of 0.557 and 0.293, respectively. These findings are in line with recent studies highlighting the influence of psychological and behavioral factors on consumer purchasing decisions (Nguyen et al., 2023; Islam & Khan, 2024). Conversely, demographic moderators were non-significant. This aligns with prior studies indicating that demographics are generally weaker predictors of intentions and behaviors compared to attitudinal and behavioral constructs (Dwivedi et al., 2021; Alalwan et al., 2017).

The model was able to explain a good amount of variance in behavioral intention shown by an R^2 of 0.695 for recommendation intention, which means that community commitment and community engagement explain almost 70% of the variance in behavioral intention. This highlights the need to target consumer attitudes, concerns and modes of engagement rather than demographic segmentation alone. On the whole, these results make a contribution to theoretical and practical knowledge by revealing that behavioral constructs, rather than demographic factors, are stronger predictors of consumer intentions and as such offers useful implications for marketing research.

In addition, the findings also have theoretical and practical significances. Theoretically, the results add to a growing agreement in the behavioral literature that attitude and involvement related constructs, instead of demographic antecedents, best predict intention in accordance with theoretical models, such as Theory of Planned Behavior (Ajzen, 1991). The takeaway for marketers, and especially for those in marketing and tourism industries, is to focus on nurturing consumer worry and involvement rather than demographic segmentation (Chen, 2020). By leveraging psychological motivations, organizations may be able to develop new offerings, campaigns and policies that resonate more with consumer values and perceptions and lead to stronger behavioral intentions and more sustainable outcomes (Nguyen et al., 2023; Islam & Khan, 2024).

6. Recommendations and Future Research Scope

Implications for organization are that they may want to focus on increasing consumer concern and involvement as these were the strongest predictors of intention to respond. In terms of practical application, the findings suggest that campaigns may be designed to emphasize ethical conduct, sustainability related concerns, be more engaging to foster greater trust and participation from consumers.

Future research may also extend the model with other psychological variables such as trust, perceived value or attitude. In addition, cross-cultural and longitudinal research may provide further insights into how consumer concern and involvement evolve over time to influence behavioral intentions across cultures.

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Appendix

Constructs and Indicators with Statements

Brand Community Engagement [Source: Adapted and modified from Laroche et al. (2012)]	
BCE 1	I benefit from following the community's rules.
BCE 2	I am motivated to participate in the activities because I feel good afterwards or because I like it.
BCE 3	I am motivated to participate in the community's activities because I am able to support other members.
BCE 4	I am motivated to participate in the community's activities because I am able to reach personal goals.
Brand Community Commitment [Source: Adapted and modified from Demiray & Burnaz, (2019) and Kumar & Kumar, (2020)]	
BCC 1	I am an actively participating member of the community.
BCC 2	I care about the long-term success of this brand community.
BCC 3	I will visit this brand community continuously
BCC 4	I will exchange information and opinions with the members of this community.
BCC 5	I feel this community as a part of living.
BCC 6	I feel attached to this community.
Brand Recommendation Intention [Source: Adapted and modified from Cho et al. (2021) and Jo, (2023)]	
BRE 1	I will promote the brand where I am a community member.
BRE 2	I will actively recommend the brand where I am a community member.
BRE 3	I will recommend the brand where I am a community member positively.
BRE 4	I will recommend the brand where I am a community member to anyone who seeks my advice.
BRE 5	I will refer my acquaintances to the brand where I am a community member.