Antecedents and consequences of children's brand community participation: A replication and extension study

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Abstract:

Brand communities are a popular tool brands use to develop relationships with customers. Bagozzi & Dholakia's (2006) seminal article provides one model to explain participation in these brand communities. This research replicates and extends this model to the demographic of children. Results show that most relationships reflected those observed in the original study, however, some distinct differences were found. Findings highlight that adult-orientated brand community models may not be suitable to explain all child-members' attitudes and behaviors in brand communities.

Keywords: Brand Communities, Children, Social Identity, Theory of Planned Behavior

Introduction

Since the beginning of the new millennium there have been several hundred articles published regarding brand communities. With over 1000 citations, Bagozzi & Dholakia (2006) would be classified a seminal article within brand community literature. A brand community is defined as 'a specialized, non-geographically bound community, based on a set of social relationships among admirers of a brand' (Muniz & O'Guinn 2001, p 412). These branded communities have become a popular marketing resource due to the valuable role they play in brand and product promotion, as well as customer relationship management (Muniz & O'Guinn, 2001). Brand community popularity has prompted the development of many conceptual models, applying numerous theories, to explain brand community participation. One model is that presented by Bagozzi & Dholakia (2006), which introduced the Theory of Planned Behavior in combination with other elements into the brand community context.

Brand community research is dominated by adult-oriented studies. However, children as young as five also engage in these communities (Flurry, Swimberghe, & Parker, 2014). Little is known, however, about children's behavior, and factors of influence in this area. Whilst adult-orientated research may guide our understanding of brand community participation, differences in socio-emotional (Cicchetti & Cohen, 2006) and cognitive skills (Piaget, 1972) could impact a child's brand community participation. To the best of the authors knowledge, only two papers have investigated child or youth brand community participants: Sicilia & Palazón (2008) and Flurry et al. (2014). These two studies show that children participate in brand communities, however, they do not provide any empirical evidence as to the motives of children's participation. Due to the popularity and influence of Bagozzi & Dholakia's (2006) model in the field of brand community research, an investigation into whether this model applies to the demographic of children will yield insightful results for both academics and practitioners.

Method

This study replicates Bagozzi & Dholakia's (2006) model, extending it to the demographic of child brand community participants (Australian children aged 6 – 14 years old). The product category of computer games was chosen in place of motorcycles for this study. Replicating Bagozzi & Dholakia (2006), data were collected from two independent groups; (1) those who self-identified as being a Minecraft brand community member and (2) those who self-identified as being a computer game community member.

The survey was conducted online with parental consent, and child assent obtained prior to participation. A total of 761 child participants completed the survey, 372 in the brand community group and 389 in the non-branded community group. The age of the participants were approximately evenly distributed within each group (M_{BC} = 9.98 years; M_{nBC}= 10.71 years). For the brand community, the majority of participants were male (63.4%; 36.6% female) and for the non-branded community, the majority were female (63.2%; 36.8% male). Table 1 shows a comparison between the current and original samples. Differences exist between the: ages of participants, year of data collection, gender distribution of participants, focal brand community and data collection method.

Table 1 – Method Comparison

	Current Study	**Bagozzi & Dholakia**
Year of Data Collection	2016	2006
Brand Studied	Minecraft	Harley-Davidson
Participant Population		
Brand Community	372	154
Non-Branded Community	389	298
Total	761	452
Participant Characteristics – Brand Community		
Age	6 – 14 (mean = 9.98)	23 – 73 (mean = 47.5)
Gender	63.4% male (36.6% female)	74% male (26% female)
Participant Characteristics – Non-Branded Community		
Age	6 – 14 (mean = 10.71)	20 – 67 (mean = 43.2)
Gender	63.2% female (36.8% male)	83.6% male (16.4% female)
Data Collection		
Brand Community	Online	Mail
Non-Branded Community	Online	Online
Data Analysis	Confirmatory Factor Analysis and Structural Equation Modeling	Confirmatory Factor Analysis and Structural Equation Modeling

All constructs from the original article were employed. However, in some instances, minor alterations were made to reflect the language ability of participants through the use of synonyms (for example, 'depressed' was altered to state 'sad'). Additionally, all scales were changed from 7-point Likert scales to 5-point Likert scales as these are more suitable for child participants (Borgers & Hox, 2001).

Table 2 - Means, Standard Deviations, and Reliabilities of Scales

Scale	Current Study						Bagozzi & Dholakia (2006)					
	Brand Community			Non-Branded Community			Brand Community			Non-Branded Community		
	M	SD	α	M	SD	α	M	SD	α	M	SD	α
Attitudes	5.59	0.74	0.86	4.84	0.71	0.82	5.31	1.15	.94	5.59	1.05	.88
Subjective Norms	5.16	0.96	0.84	4.57	0.83	0.79	5.76	1.50	.87	5.77	1.45	.80
Positive Anticipated Emotions	5.80	0.71	0.92	5.35	0.84	0.93	4.59	1.59	.95	4.97	1.39	.91
Negative Anticipated Emotions	2.86	0.96	0.95	2.46	0.94	0.94	1.82	1.08	.95	2.24	1.19	.90
Desires	4.35	1.05	0.87	3.52	1.01	0.85	5.19	1.43	.93	6.07	1.03	.85
Cognitive Social Identity	4.92	0.94	0.83	4.36	0.89	0.68	4.14	1.71	.90	4.21	1.62	.88
Affective Social Identity	5.56	0.83	0.83	4.93	0.98	0.85	4.61	1.64	.91	4.88	1.57	.87
Evaluative Social Identity	4.39	0.95	0.73	3.60	0.92	0.69	4.30	1.89	.96	4.74	1.92	.94
Perceived Behavioural Control	5.32	0.77	0.35	3.13	0.73	0.36	4.71	1.64	.57	4.86	1.48	.62
Brand Identification	2.91	1.18	-	-	-	-	4.79	2.04	-	-	-	-
Social Intention	4.51	1.12	0.86	3.61	1.13	0.82	3.86	.93	.90	4.32	.90	.82
Group Behaviour	3.28	0.92	0.78	2.64	0.90	0.85	1.02	.73	.74	.95	.60	.51
Brand-Related Behaviour	2.91	0.86	0.81	1.54	0.32	0.71	2.15	.66	.62	2.01	.63	.55

Note: All 5-point scale means from the current study were converted to 7-point means for comparison.

Table 2 summarizes the means, standard deviations and reliability scores of the 13 constructs for both groups of data collected. The reliability scores for the majority of measures were above 0.70, except for perceived behavioral control, and cognitive social identity in the non-branded community. The original article also had low reliability for the perceived behavioral control measure. Unlike the original article the measures of group behavior and brand-related behavior resulted in high reliability scores in this study.

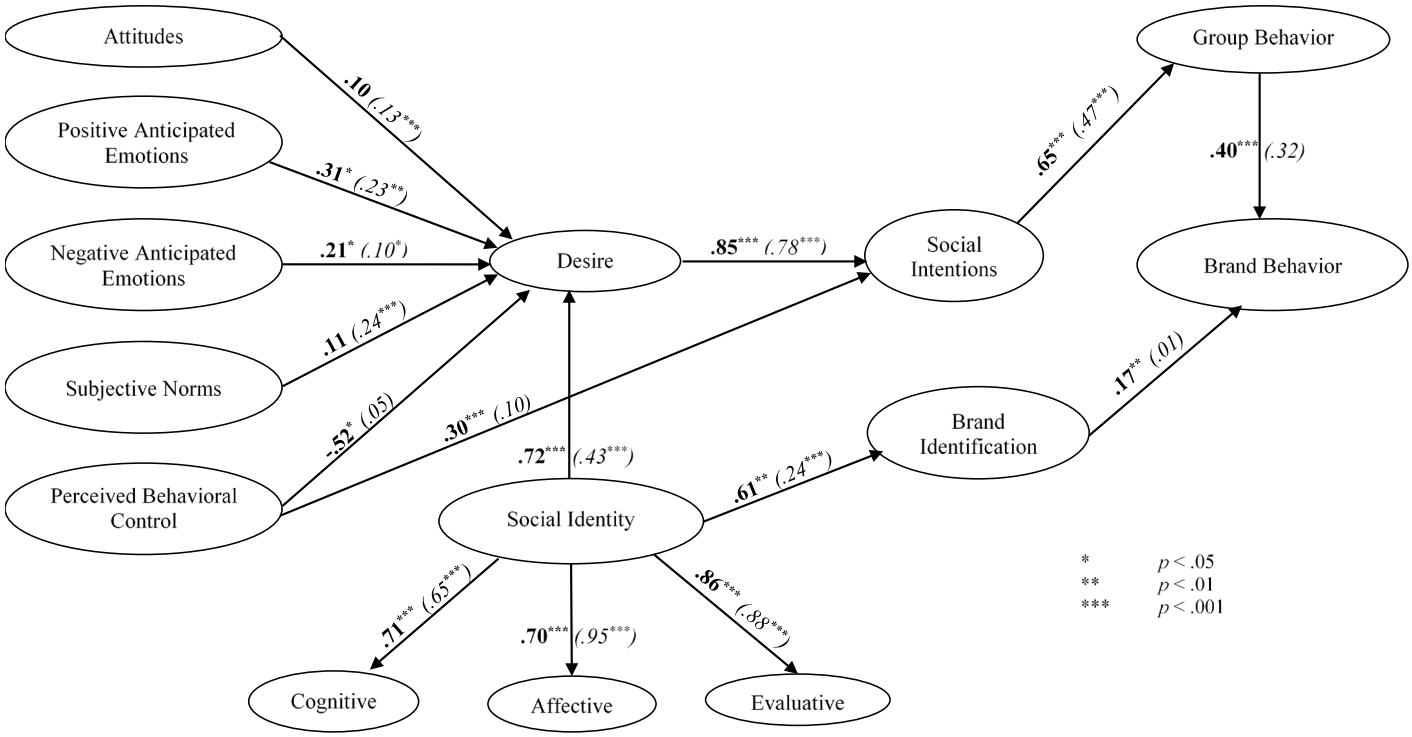
Results and Discussion

Based on the original analysis method, Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM) were performed to produce a model fitting both groups of data (brand and non-branded community), to identify the significant relationships between variables of interest. Both models did not fit as well as the original study: brand community: $\chi^2(471) = 1078.78$, $p \approx .00$, RMSEA = .059, NNFI = .92, CFI = .92; non-branded community: $\chi^2(440) = 997.487$, $p \approx .00$, RMSEA = .057, NNFI = .92, CFI = .93. In addition, as shown in Figures 1 (brand community) and 2 (non-branded community), the paths and significance did not directly replicate those reported by Bagozzi & Dholakia (2006). Interestingly, some of the paths that were insignificant are significant in the current study and vice versa, differences were also observed in respect to relationship strength and direction. In particular, while Bagozzi & Dholakia found a positive relationship between perceived behavioral control and desire, a negative relationship was observed in this study. The change in relationship direction may be driven by the nature of the sample. Specifically, compared to adults, children possess less control over their behavior (Baumrind, 1978), resulting in the negative effect.

Another interesting finding is that both attitudes and subjective norms were not significantly associated with desire (both brand and non-branded community), unlike the Bagozzi & Dholakia (2006) findings. This suggests that these components of the theory of planned behavior may not be suitable for a child context, in particular for child participants in brand communities. In contrast, the relationship between group behavior and brand behavior (for the brand community) changed from non-significant to significant in the current study suggesting that group behavior has a more significant influence on brand behavior in the context of children compared to adults. These findings reinforce prior research that demonstrated group influence is of particular importance for children (e.g. Dishion & Tipsord, 2011; Hawkins & Coney, 1974).

Considering the model overall, five coefficients transferred from insignificant to significant, five coefficients switched from significant to insignificant and sixteen coefficients remained the same in terms of significance. This suggests that the results replicate fairly well in the new context of children.

Figure 1 - Findings for structural equation model: Brand Community (n = 372).

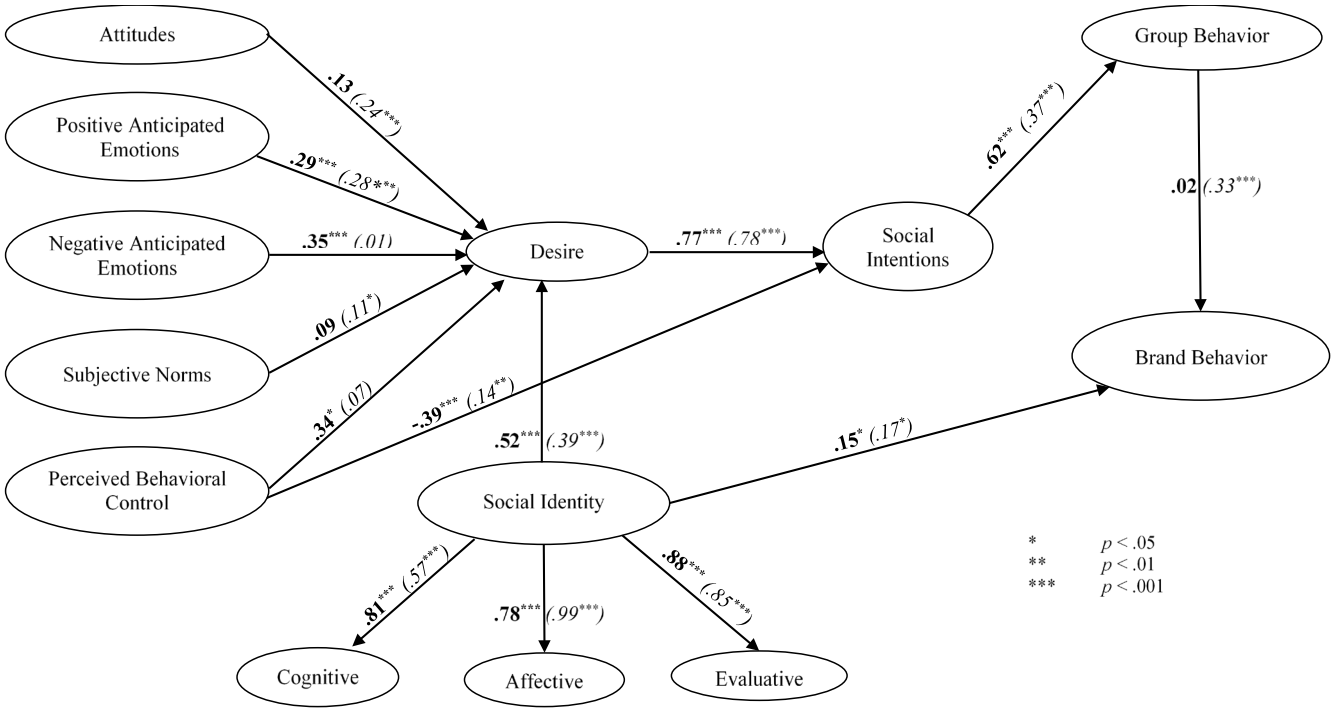


Current study findings are bolded, findings from Bagozzi & Dholakia (2006) are italicized in brackets

Tests of mediation were also performed and compared to Bagozzi & Dholakia's (2006) findings (see Table 3). Unlike the original findings, social identity, attitudes, positive anticipated emotions and subjective norms were found to have a significant direct effect on social intentions, and were not fully mediated by desire. For the non-branded community, similar results were found with social identity, attitudes and negative anticipated emotions all having a significant direct effect on social intentions. In addition, for the non-branded community positive anticipated emotions

had a significant direct effect on group behavior, similar to the findings of Bagozzi & Dholakia's (2006). Interestingly, the fit levels were similar across all four cases (the two from the current study and the two from Bagozzi & Dholakia, 2006) also highlighting that the results replicated fairly well.

Figure 2 - Findings for structural equation model: Non-Branded Community (n = 389).



Current study findings are bolded, findings from Bagozzi & Dholakia (2006) are italicized in brackets

Employing methods used by Bagozzi & Dholakia (2006), tests were also conducted to assess the difference in the correlations between the two models (brand community versus non-branded community). To do this a simultaneous CFA for the latent variables constant across the groups was performed to show whether there was a significant difference between the correlation coefficients. The twelve-factor model did not fit as well as the original study: $\chi^2(880) = 2016.08$, $p \approx .00$, RMSEA = .041, NNFI = .92, CFI = .93. Unlike the original study, however, the test of equality of factor loadings showed that the hypothesis of invariance could be rejected: $\chi^2(20) = 20.116$, $p \approx .00$. This result shows that the addition of the 'brand' into the community significantly modifies the structure of the model. Further analysis shows that five paths were significantly different between the groups, based on χ^2 difference tests (see Table 4).

Table 3 - Summary of Direct Effects (χ^2 difference and *p*-values)

	Current Study		Bagozzi & Dholakia (2006)	
	Brand Community	Non-Branded Community	Brand Community	Non-Branded Community
Social Identity – social intentions	$\chi^2 = 8.43$, ***p* < .001**	$\chi^2 = 5.55$, ***p* < .001**	$\chi^2 = .66$, $p > .30$	$\chi^2 = .37$, $p > .56$
Attitude – social intentions	$\chi^2 = 8.19$, ***p* < .001**	$\chi^2 = 8.47$, ***p* < .001**	$\chi^2 = .13$, $p > .70$	$\chi^2 = 5.29$, ***p* < .05**
Positive anticipated emotions – intentions	$\chi^2 = 2.12$, ***p* = .02**	$\chi^2 = 1.25$, $p = .13$	$\chi^2 = .16$, $p > .68$	$\chi^2 = 1.50$, $p > .21$
Negative anticipated emotions – social intentions	$\chi^2 = .04$, $p = .81$	$\chi^2 = 6.92$ $p = .24$	$\chi^2 = .55$, $p > .46$	$\chi^2 = .55$, $p > .48$
Subjective Norm – social intentions	$\chi^2 = 16.90$, ***p* < .01**	$\chi^2 = 18.37$, $p = .34$	$\chi^2 = .48$, $p > .49$	$\chi^2 = .2.68$, $p > .10$
Social identity – group behavior	$\chi^2 = .53$, $p = .32$	$\chi^2 = .55$, $p = .39$	$\chi^2 = 3.38$, $p > .07$	$\chi^2 = 9.07$, ***p* < .001**
Attitude – group behavior	$\chi^2 = 1.41$, $p = .16$	$\chi^2 = 3.83$, ***p* < .03**	$\chi^2 = .48$, $p > .49$	$\chi^2 = .99$, $p > .35$
Positive anticipated emotions – group behavior	$\chi^2 = 1.75$, $p = .12$	$\chi^2 = .26$, $p = .60$	$\chi^2 = .23$, $p > .66$	$\chi^2 = 4.54$, ***p* < .05**
Negative anticipated emotions – group behavior	$\chi^2 = .56$, $p = .45$	$\chi^2 = .73$, $p = .37$	$\chi^2 = .16$, $p > .68$	$\chi^2 = 1.38$, $p > .24$
Subjective Norm – group behavior	$\chi^2 = .68$, $p = .39$	$\chi^2 = .04$, $p = .83$	$\chi^2 = .67$, $p > .30$	$\chi^2 = .81$, $p > .40$
Perceived Behavioral Control – group behavior	$\chi^2 = 1.49$, $p = .21$	$\chi^2 = .04$, $p = .83$	$\chi^2 = .34$, $p > .57$	$\chi^2 = 2.00$, $p > .17$

Note: These results are the direct effects after accounting for the indirect effects of desire and social intention.

Table 4 - Summary of Significant Differences Between Models

	Brand Community	Non-Branded Community
Attitude – Desire	.12	.13
Positive Anticipated Emotions – Desire	.27	.31
Negative Anticipated Emotions – Desire	.30	.30
Subjective Norm – Desire	.11	.10
Perceived Behavioral Control – Desire	-.27***	-.16
Social Identity – Desire	.17***	.07
Perceived Behavioral Control – Intentions	.65**	.59
Desire – Intentions	.85	.78
Intentions – Group Behavior	.65	.68
Social Identity – Brand Behavior	.07*	.20
Group Behavior – Brand Behavior	.06***	.15

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

Conclusion, limitations and avenues for future research

This paper has replicated Bagozzi & Dholakia's (2006) seminal work, using different participants, namely children aged 6-14 years old. Bagozzi & Dholakia's (2006) model replicates well for this new context. However, there are some unique differences for children's brand community participation, in overall model fit, path significance and moderating effects. Unlike Bagozzi & Dholakia (2006), results of this study show a significant difference between the brand community and non-branded community models. This finding is particularly interesting as it may suggest

the incorporation of the 'brand' into the community has a stronger influence on children compared to adults.

In addition, the mediating role of desire was found to be vastly different for child members. The results show that once a child forms positive attitudes, positive anticipated emotions or a social identity with the community, a direct positive effect on social intentions is observed, with desire not necessary for the relationship to occur. This may be due to children not being able to distinguish between desire, attitudes and emotions (Schult, 2002), therefore desire adds no predictive element to the formation of this relationship. This is further supported by the lack of significant relationship between attitudes and desire, for both the branded and non-branded communities, in contrast to the findings of Bagozzi & Dholakia (2006). It is therefore suggested that future research be conducted to understand the role of desire for child brand community members.

Since Bagozzi & Dholakia's (2006) model does not fully explain children's brand community participation, additional future research is warranted. Specifically, future research should look at developing a new model that better explains children's brand community participation. Researchers should consider the inclusion of variables that are uniquely relevant to child-aged brand community participants (such as, self-esteem).

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Appendix – Correlation Matrices

Minecraft Brand Community

	PBC	SN	NAE	PAE	ATT	SIDE	DES	SINT	BID	GBEH	ESI	ASI	CSI	BBEH
PBC	1													
SN	.66	1												
NAE	-.42	-.16	1											
PAE	.59	.46	-.12	1										
ATT	.52	.50	-.08	.80	1									
SIDE	.00	.00	.00	.00	.00	1								
DES	-.30	-.07	.37	.11	.12	.71	1							
SINT	.04	.13	.20	.27	.26	.61	.77	1						
BID	.00	.00	.00	.00	.00	.61	.44	.37	1					
GBEH	.10	.13	.09	.22	.20	.39	.47	.64	.24	1				
ESI	.00	.00	.00	.00	.00	.86	.62	.53	.53	.34	1			
ASI	.00	.00	.00	.00	.00	.70	.50	.43	.43	.27	.60	1		
CSI	.00	.00	.00	.00	.00	.71	.51	.44	.44	.28	.62	.50	1	
BBEH	.04	.05	.04	.09	.08	.26	.26	.32	.26	.43	.22	.18	.18	1

Non-Brand Community

	PBC	SN	NAE	PAE	ATT	SIDE	DES	SINT	GBEH	ESI	ASI	CSI	BBEH
PBC	1												
SN	-.61	1											
NAE	.15	-.17	1										
PAE	-.46	.44	.04	1									
ATT	-.45	.46	.18	.76	1								
SIDE	.00	.00	.00	.00	.00	1							
DES	.15	.01	.42	.29	.30	.52	1						
SINT	-.28	.24	.26	.40	.40	.40	.71	1					
GBEH	-.18	.16	.18	.27	.27	.28	.49	.69	1				
ESI	.00	.00	.00	.00	.00	.88	.46	.35	.24	1			
ASI	.00	.00	.00	.00	.00	.78	.41	.31	.22	.68	1		
CSI	.00	.00	.00	.00	.00	.81	.43	.33	.23	.71	.63	1	
BBEH	<-.01	<.01	<.01	.01	.01	.15	.09	.08	.07	.13	.12	.12	1

Note: PBC = Perceived Behavioral Control, SN = Subjective Norms, NAE = Negative Anticipated Emotions, PAE = Positive Anticipated Emotions, ATT = Attitude, SIDE = Social Identity, DES = Desire, SINT = Social Intentions, GBEH = Group Behavior, ESI = Evaluative Social Identity, ASI = Affective Social Identity, CSI = Cognitive Social Identity, BBEH = Brand Behavior