

前「嬰」後「裹」：從社群資訊與品牌特性雙線索至 顧客雙行為影響歷程之研究

Diaper-ification: The Influence Processes Study of Customers' Dual Behavioral Consequences from the Binal Cues of Community Information and Brand Characteristics

Abstract

Along with the expansion of the global diaper industry, official online channels are receiving growing attention. In which, Facebook has become the top social media website of Taiwanese baby communities in 2017. This study aims at exploring a holistic influence process from binal cues of brand characteristics and community information to consumers' dual behavioral performances. Therefore, this study proposes both brand and community as the antecedents of the research model meanwhile integrating mediating variables (positive emotion, brand identification, and customer satisfaction) to verify benefits for maintenance of in-role behavior (brand loyalty) as well as generation of extra-role behavior (community citizenship behavior). The top three Taiwanese baby diaper brands (MamyPoko, Merries, Pampers) are selected to be the research target, and structural equation modeling is applied. Empirical evidence shows that the goodness-of-fit is moderate, and 8 paths are supported. Besides, the multi-group analysis of each brand and Fan Page hour attention per-day indicates different path results. Regarding mediation effects, positive emotion, brand identification, and satisfaction present partial mediation effects. This study scrutinizes the comprehensive process with an overall point of view, expanding brand management to community relationship. Ultimately, practical implications and suggestions for future studies and Fan Pages managers are proposed.

Keywords: Community Information Cues, Brand Characteristic Cues, Brand Identification, Positive Emotion and Satisfaction, Brand Loyalty Performance

1. Introduction

1.1 Research Background

With the growth of Internet participants, diaper marketers are engaging in e-commerce and social media websites as a platform to introduce their brands (Research & Markets, 2017). According to Industry Report from Social Media Examiner (2018), for 83 % business marketers, online promotion has already been crucial issues for brand development. For customers, they are changing their position from passive acceptance into active pursuit. For parents, demands for personal care and hygiene products are increasing rapidly. When adults pay more attention to parenting job, they search more information before purchase. An emerging online trend in baby diapers is going to witness a faster growth owing to the highest CAGR of 5.25% from 2017 to 2022 (Global Information, Inc., 2018). When online shopping channels are getting flourishing, more and more consumers choose to purchase diapers by online accesses; meanwhile, modern parents put more focus on the sharing of baby care experiences (i-Buzz Research, 2015). With insufficient attention comparative to on-site purchase, online brand communities appear to sources for potential diaper market development. In which, Facebook has become the top social media website of Taiwanese online baby communities (OpView Insight, 2017).

1.2 Research Motivation

Based on Social Media report (2018), only 49% of marketers agree their Facebook marketing to be effective while 38% feel unsure if their Facebook efforts are working. Therefore, it seems there's a need to scrutinize the holistic online brand experience. Meanwhile, consumer brand identification mainly comes from two dimensions (Coelho, Rita & Santos, 2018): personal and social level (Bhattacharya & Sen, 2003; Tuškej, Golob & Podnar, 2013). Consumption does not only relate to attractive product attributes or good functions, addition of life meaning is also important (Fournier, 1998). Keeping up with the notion, this study examines the drivers of brand identification from personal and social factors.

Information seeking is the main purpose for most community visitors (Armstrong & Hagel, 1996; Thongpapanl & Ashraf, 2011), so one important factor worthy of consideration is the information quality provided by those websites (Detlor, Hupfer, Ruhi & Zhao, 2013). When too much unorganized information aggravates customer overload and search complexity, it impedes customers from locating preferred information (Lee & Lee, 2004; Zha, Li & Yan, 2013). Dependence on the need for information is not enough, so finding new solutions to allure seekers and turning them into more active members may be necessary for marketers (Baldus, Voorhees & Calantone, 2015). On the other hand, online brand communities are on behalf of a connecting technique among customers, the brand, fellow members, and the marketer (McAlexander, Schouten, & Koenig, 2002). Proactive interaction is a performance that organizations offer superior services for customers (Mikolon, Quaiser & Wieseke, 2015). Meanwhile, insights of community engagement capture members' motivations which keep evolving from information retrieval to interactive communication (Zaglia, 2013; Baldus *et al.*,

2015). Personally, individuals look forward of distinctive information on the Internet while conduct social negotiation at the same time (Butler, Sproull, Kiesler & Kraut, 2002). These notions show that identification comes from personal and social dimensions (Coelho *et al.*, 2018). Therefore, information uniqueness (IU) and social interactivity (SI) stands out from the crowd to represent brand community cues here. Consumers acquire hedonic and pragmatic benefits from community participation (McAlexander *et al.*, 2002). The platforms are expected to provide unique information as well as strong relationship ties through social interactivity to sustain or improve the number of members and brand qualities; thus foster the positive emotions and intentions of re-purchase (Hajli, Shanmugam, Papagiannidis, Zahay & Richard, 2017). Therefore, how community information cues influence the subsequent emotional responses is the first research motivation of this study.

About dimensions of identification, Stokburger-Sauer, Ratneshwar and Sen (2012) refer to cognitive (brand-self similarity, brand distinctiveness, and brand prestige) and affective (brand social benefits, brand warmth, and memorable brand experiences) aspects. Similarly, So, King, Hudson, and Meng (2017) utilize the perspectives of brand identity (including brand prestige and distinctiveness) and brand encounters (including brand social benefits and memorable brand experience) to explain the formation of brand identification. When airline industry discussed by So *et al.* (2017) is inspected more on the status categorization like seat arrangement, under different context, brand distinctiveness is a more reasonable construct for highly experiential products such as baby diapers. Besides, when the idea of social benefits has been incorporated in the discussion of interactivity (Wu & Pearce, 2016), memorable brand experience is supposed to represent the brand characteristic cues for diaper markets. From another point of view, when customers pay attention to attractive brand attributes, they co-create memorable brand experiences which come from the social interaction between them and service brands (So *et al.*, 2017). These two correspond to the perspectives of Coelho *et al.* (2018) that identification comes from personal and social dimensions. Therefore, both brand distinctiveness (BD) and memorable brand experience (MBE) are adopted as key variables of brand characteristic cues to conceptualize a brand identification framework. When brand identification is rooted in the conceptualization of social identity theory, it is defined as individuals' social status by categorizing personal identities to be members in different group classifications (Tajfel & Turner, 1985; Ashforth & Mael, 1989). Specific brands propose compelling characteristics with personal meanings to represent tangible self-introduction and satisfaction of individual needs (He & Li, 2011). Accounting for attractive encounters and long-term consistency, brand experiences enhance emotional connections which contribute to consumer loyalty (Ahn, Kim & Lee, 2016). Therefore, how brand characteristic cues influence brand identification is the second research motivation of this study.

Brand identification refers to consumers' perceived connection between themselves and brand success (Wong, Haddoud, Kwok & He, 2018), so the purposive generation of pro-brand outcomes leads to the significance of examining brand identification and its antecedents

(Stokburger-Sauer *et al.*, 2012). Meanwhile, customer emotions to a brand determines overall evaluation which is a requirement for re-consumption behaviors (Han, Back & Barrett, 2009). The awareness may be somehow related to their concern with brand satisfaction and reputation (Kuenzel & Halliday, 2008) when satisfaction is suggested to be a criterion of relationship quality intervening between antecedents and consequences (Casaló, Flavián & Guinalú, 2010). The phenomenon leads to emotional connection between loyal customers and the brand (Thomson, MacInnis & Park, 2005). Therefore, how positive emotion and brand identification influence on satisfaction as the third research motivation of this study.

The importance of brand identification depends on its stimulation of consequential outcomes which are described as consumers' in-role (Ahearne, Bhattacharya & Gruen, 2005; Rauyruen & Miller, 2007) and extra-role behaviors (Bove, Pervan, Beatty & Shiu, 2009), respectively. The former dimension refers to loyalty performance when the latter dimension is regarded as the display of cooperative actions going beyond self-interest (Ahearne *et al.*, 2005; Coelho *et al.*, 2018). This study explore brand loyalty (BL) and community citizenship behavior (CCB) at the same time to interpret consumer loyalty performance. Holistic evaluation of a brand accomplishes mutual relationship quality (Dwyer, Schurr & Oh, 1987). When identification is held as the degree of agreement with a brand and the display of extra- and in-role behaviors (Bhattacharya & Sen, 2003; Coelho *et al.*, 2018), satisfaction interprets the customers' fulfillment response of the connection with service providers (Anderson & Srinivasan, 2003). The allegiance stimulates the sense of obligation and reciprocity for consumers to participate in supportive activities of companies and display of loyal performances (Balaji, Roy & Quazi, 2017). In general, customer satisfaction possesses a crucial mediating role between consumption-based emotions and behavioral intentions (Han & Back, 2007; Pham & Ahammad, 2017). Therefore, the influence that satisfaction has on both in- and extra-role behaviors, respectively, is served as the fourth research motivation of this study.

1.3 Anticipated Contribution

While some mainly focus on brand characteristic perspective of pre-purchasing, purchasing, or post-chasing phase (Hsu & Yen, 2016; Xie, Poon & Zhang, 2017; Wong, *et al.*, 2018), others simply emphasize the significance of brand community perspective (Stokburger-Sauer *et al.*, 2012; So *et al.*, 2017; Wang, Zhou, Jin, Fang & Lee, 2017). Beyond exploring the relevancy of only single set of constructs, it is more valuable to scrutinize the interrelationship between multi-concepts (Fetscherin & Heinrich, 2014). Online marketing research also needs further exploration (Trueman, Cornelius & Wallace, 2012). Based on the idea of consumer identification, the current study will fill a gap in research to provide a holistic understanding of consumption antecedents and behavioral outcomes through the entire service delivery process by integrating both brand and community perspectives simultaneously.

Additionally, when applying Tajfel's (1978) idea of identification, positive emotion (Wu & Chang, 2005; Balaji *et al.*, 2017; Shin, Ellinger, Mothersbaugh & Reynolds, 2017; Wang *et*

al., 2017), brand identification (Yeh & Choi, 2011; Stokburger-Sauer *et al.*, 2012; Wu, Huang, Tsai & Lin, 2017; Berendt, Uhrich & Thompson, 2018), and satisfaction (Dholakia & Zhao, 2009; Zhu, Sun & Chang, 2016; Pham & Ahammad, 2017) correspond to the domains of affection, cognition, and evaluation, and each of them serves as important mediators worthy of complete consideration in relation to their mediation. However, former research usually focuses on a single factor while lacking a systematic assumption. Therefore, the current study extends the work by capturing the synergistic nature of the three mediators to fulfill the gap.

Furthermore, prior literature rarely includes both consumer's in-role and extra-role behaviors to explain outcome variables. In-role behavior is taken into consideration (Sahin, Zehir & Kitapçı, 2011; Chen & Ku, 2013; Kuo & Feng, 2013; Yeh, Wang & Yieh, 2016) more than extra-role behavior (Ahn *et al.*, 2016; Xie *et al.*, 2017; Wong *et al.*, 2018). Therefore, this study provides insights of the differentiation and influence on the effects of consumer behaviors.

1.4 Research Purpose

Depending on the prior references and assumptions, there are four research purposes that the study intends to work out: (1) to determine whether online community information cues are crucial antecedents of positive emotion; (2) to confirm the influence of brand characteristic cues on brand identification; (3) examining the mediating effects of positive emotion, brand identification, and satisfaction; (4) applying in-role (brand loyalty) and extra-role (customer citizenship behavior) factors to attest the influence of satisfaction on behavioral consequences.

2. Literature Review and Research Hypotheses

2.1 Community Information Cues

2.1.1 Information Uniqueness (IU)

Snyder and Fromkin (1980) proposed uniqueness theory to explain individual's pursuit of differentiation from others. Uniqueness refers to idiosyncratic feeling when people recognize something original and uncommon compared to counterparts (Tian, Bearden & Hunter, 2001). It demonstrates the perception of distinctiveness determines assessment of features (Kemp, Childers & Williams, 2012), so information uniqueness is the online messages with unique, original, distinctive and distinguishable qualities (Wang & Strong, 1996). Besides, while information quality refers to "meaningful data", both content and context should be put into consideration (Detlor, 2010). It means not only originality but the way it presents and the feeling browsers perceive (Wang *et al.*, 2017). Therefore, content presentation may also cater to the concept of need for uniqueness (Knight & Kim, 2007): (1) preference of distinctiveness without feeling of bizarre at the same time; (2) unpopular choices that may deviate from group norms but the consequence wins admires from others; and (3) intent to be apart from mainstream.

2.1.2 Social Interactivity (SI)

Interactivity consists of control, exchange of roles, and mutual discourse (Williams, Rice & Rogers, 1988), and it used to be defined as member-to-member interaction. Machine interactivity is then proposed to replenish the interactivity occurring between individuals and

technology to access hypermedia content on the Internet (Hoffman & Novak, 1996). Consequent research mostly bases on the two to explain interactivity concept (Fortin & Dholakia, 2005; Wang, Chen & Tsai, 2012; Luo, Zhang, Hu & Wang, 2016; Lin & Chang, 2018). According to Luo's *et al.* (2016), interactivity is grouped into three types including customer-to-platform, customer/manager-to-customer, and customer-to-product information. Primarily, customers are intrigued to join brand community because of the eager for product related information (McAlexander *et al.*, 2002). Product-information interaction happens when knowledge regard to product-technology, usage, and product-marketing is exchanged, and it allows customers to obtain distinct product aspects under such interaction context (Jeppesen & Molin, 2003). Meanwhile, in community settings, interpersonal interaction, which are stressed more, refers to person-to-person communication among member customers (Nambisan & Baron, 2009; Wang, Chan & Yang, 2013). When users take actions like posting in communities to reduce uncertainty (Tidwell & Walther, 2002), social interaction exists in user-generated content, or direct support from members (Luo *et al.*, 2016). Finally, human-computer interaction underlines the functions such as platform' usability, friendliness, and channel capacity (Nambisan, 2002) but it's not discussed here since Facebook pages are the same.

2.2 Brand Characteristic cues

2.2.1 Brand Distinctiveness (BD)

Since brand competition tends to be vigorous, how to develop a distinctive city brand becomes a breakthrough (Ahn *et al.*, 2016; Berendt *et al.*, 2018). Brand distinctiveness, serving as an indicator of uniqueness and superiority (Aaker, 2003; Wong & Merrilees, 2008). It's defined as a display of a brand identity with perceived uniqueness in relation to its competitors (Stokburger-Sauer *et al.*, 2012). It differentiates the brand from other competitive counterparts in the aspect of brand features, brand services, brand programs, and branded ingredients (Aaker, 2003; McQuiston, 2004; Wong & Merrilees, 2008). And brands with differentiation deliver values of distinguished qualities and worth-trust images (Ahn *et al.*, 2016).

2.2.2 Memorable Brand Experience (MBE)

Customer experience is conceptualized as an outcome after a series of interactions between customers and brands by direct or indirect stimuli (Nysveen, Pedersen & Skard, 2013). Memorable sensation can trigger consumers' experience with a brand (Xie *et al.*, 2017). Stokburger-Sauer *et al.* (2012) define MBE as the degree to which positivity of charged memories retrieved from prior brand experiences. Behavioral responses can thus be triggered by related stimuli including brand design, identity, packaging, communications, and environments (Brakus, Schmitt & Zarantonello, 2009). Berendt *et al.* (2018) further indicate that brand distinctiveness is associated with MBE because it serves as a conscious implication in memory which shapes the prominence of the brand and raises brand recognition in minds.

2.3 Positive Emotion (PE)

Brand emotions are defined as a complicated psychological state associated with mental and physical adjustment and are manipulated by brands to influence future thoughts and

behaviors (James, 1884; Yan, Zhou & Wu, 2018). Early emotion scale indicates that the complicated inherent affection of joy includes happy, pleased and joyful perception (Richins, 1997). And the participation of community activities allows consumers to obtain both pleasurable affection and utilitarian value (McAlexander *et al.*, 2002). It is an intrinsic response activated by personal perception of a favorable encounter (Balaji *et al.*, 2017).

2.4 Brand Identification (BI)

Customer brand identification is germinated from social identity theory (Tajfel & Turner, 1985). It is a brand-self connection and happens when people think of self-linkage, intertwining with the characteristics of particular group (Park, MacInnis, Priester, Eisingerich & Iacobucci, 2010; So *et al.*, 2017). Coelho *et al.* (2018) classify brand identification into personal and social level. The first focuses on consumers' personality and self-belief expression (Bhattacharya & Sen, 2003), and the second regards brands as communication tools for consumer aspirations and self-status (Tuškej *et al.*, 2013). And the pursuing of ideal self-image is embodied in the action of purchasing an idiosyncratic brand (He, Li & Harris, 2012).

2.5 Satisfaction (SA)

The definition of satisfaction may differ a little, but the general principle regards it as a holistically affective evaluation in a purchase context (Han *et al.*, 2009; Yi, 1990). Pham and Ahammad (2017) note the deficiency of previous research which only pay attention to online interactions while neglect offline interaction. Other defections are listed in following Table 1.

Table 1 Literature Review of Satisfaction Definitions

Author	Variable name	Definition
Day (1984)	satisfaction	A judgment after consumption of certain choice.
Bitner & Hubbert (1994)	satisfaction	It's a comprehensive assessment based on the former experiences and informed functions with a provider.
Bloemer & Kasper (1995)	satisfaction	The subjective evaluation judges the chosen brands by whether they perfectly achieve or surpass the original expectations.
Kotler (1997)	satisfaction	The experiential consequence in the buying process which directly influences individual future behaviors.
Szymanski & Hise (2000)	e-satisfaction	It's the outcomes of consumers' evaluation toward online convenience, product promotion, page design and financial security.
Anderson & Srinivasan (2003)	online satisfaction	It's user's contentment based on their shopping experience on the Internet.
Tang & Jang (2008)	satisfaction	It's users' overall evaluation of website quality to integrate a satisfactory online experience.
Choi, Wilson & Fowler (2013)	satisfaction	It's a holistic evaluation about the product or service after consumption.
Pham & Ahammad (2017)	satisfaction	Depending on consumers' conditions and preferences, delicate online consuming process allows retailers to provide qualified performances which cater to consumers' expectations.

Source: organized by this study

2.6 Brand Loyalty Performance

2.6.1 Community Citizenship Behavior (CCB)

Citizenship behavior describes non-obligatory or committed actions on the condition of formal service delivery (Organ, 1988). Applied in the online context, it is regarded as voluntary

efforts conducted to maintain, support and promote the community (Yen, Hsu & Huang, 2011). Thus, it refers to the discretionary engagement of extra-role behaviors (Nguyen, Groth, Walsh & Hennig-Thurau, 2014). Bettencourt (1997) suggests the conceptualization including loyalty, cooperation, and participation. To fellow's members, customers embrace willingness to benefit counterparts like assistance provision (Xie *et al.*, 2017). To organizations, customers give contributions like positive WOM, recommendation or valuable feedback (Bove *et al.*, 2009).

2.6.2 Brand Loyalty (BL)

Loyalty, exhibitions of customers' in-role performance, is defined as an enduring preference of same brand services resulting in repetitive purchase despite of brand switching seduction (Oliver, 1997; Chaudhuri & Holbrook, 2001). It is a reflection of the relationship strength between a consumer and his/her relative stance of repetitive purchase (Lin, 2010). When relationship development is cultivated by interactions over time, the core crux appears to be brand loyalty (Japutra & Molinillo, 2017). Apart from complete association with self-benefits, cooperative behaviors such as recommendation or perseverance of unfavorable situations present customers' attitudinal loyalty (Ahn *et al.*, 2016; Coelho *et al.*, 2018).

2.7 Hypothesis Inference

2.7.1 The Linkage between Community Information Cues and Positive Emotion

Information uniqueness is regarded as a crucial affective cue associated with users' emotional response (DeLone & McLean, 1992). The essence of brand communities relies on the exchange of information and resources (Muñiz & O'Guinn, 2001), and the participation of such activities allows consumers to obtain both pleasurable affection and utilitarian value (McAlexander *et al.*, 2002). At the same time, individuals have instincts to pursue uniqueness (Sharma, Verma & Sharma, 2018). The opportunity to collect or share information with high uniqueness such as reporting the first-hand news is seen as an action delivering high value to others (Wang, Jin, Zhou, Fang, Lee & Hua, 2015), so, users who get the chance to expose such information are more likely to experience positive emotion (Wang *et al.*, 2017).

Customers tend to feel positive emotions and respond positively in the relationship when encountering successful service interactions (Balaji *et al.*, 2017). Except for service, member interaction in virtual community relates to emotions as well. Interpersonal communication helps engender mutual interdependence and the feeling of knowing each other (Shannon & Weaver, 1949). In computer-mediated community, intense interactivity is beneficial in generating a feeling of being understood about self-problem (Nambisan & Baron, 2009). Active communication and mutual assistance cultivate a sense of belonging and establish social friendship between them (Muñiz & O'Guinn, 2001), thus plays a role of lubricant to hold the platform together (Yadav & Varadarajan, 2005). Based on the above statement, this study proposes the following hypotheses:

H₁. Information uniqueness has a significantly positive effect on positive emotion.

H₂. Social interactivity has a significantly positive effect on positive emotion.

2.7.2 The Linkage between Brand Characteristic Cues and Brand Identification

Stokburger-Sauer *et al.* (2012) remind that social identity and identification usually emphasize the cognitive construction of self. Customers prefer brands with salient distinctiveness which implies the stronger capability to satisfy their expectations (Harris & Goode, 2004). People pursue positive distinctiveness and look for membership in particular groups so that the self-concept can be positively built up (Berendt *et al.*, 2018). Brand distinctiveness is suggested to contain the extent to which consumers feel a psychological connection with other users of the same brand (Swimberghe, Darrat, Beal & Astakhova, 2018). And the successful building helps brand identity development thus induces consumer-brand identification (So *et al.*, 2017).

It is proposed that memorable brand experiences greatly contribute to consumer brand identification due to the provision of customer evaluation to brand during service encounter (Grace & O’Cass, 2004). Unique experience manages the formation of customers’ perceived value (Vargo & Lusch, 2008), which helps building up the bond between a brand and its customers (Gentile, Spiller & Noci, 2007). Promotion of consumer involvement both in cognition and emotion thus induces consumer brand identification (Keh & Xie, 2009; So *et al.*, 2017). Based on the above statement, this study proposes the following hypotheses:

H3. Brand distinctiveness has a significantly positive effect on brand identification.

H4. Memorable brand experience has a significantly positive effect on brand identification.

2.7.3 The Linkage between Positive Emotion and Brand Identification

Former literature has indicated the significance of emotional responses in the formation of consumer to brand connection (Thomson *et al.*, 2005; Park *et al.*, 2010). The effect of positive affection helps broach up meaningfulness toward lives and serves as a support in regular events and adversity to stimulate one’s perception of meaning (King, Hicks, Krull & Del Gaiso, 2006). Positive emotion is seen as one way to develop high relationship quality (Terrill, Ellington, John, Latimer, Xu, Reblin & Clayton, 2018), and such a pleasurable context is prone to create personal meaningfulness, thus strengthens identification with the brand. Based on the above, this study proposes the following hypothesis:

H5. Positive emotion has a significantly positive effect on brand identification.

2.7.4 The Linkage between Positive Emotion and Satisfaction

Customer emotions are proposed to generate an evaluation bias (Dolan, 2002). It massively dominates their judgments, decision making, and behavior (Pham, 2007; Yang & Hanks, 2016). When customized provision meets individual unique requirements (Ha & Janda, 2014), it broaches up positive affection (Alcántara-Pilar, Blanco-Encomienda, Armenski & Barrio-García, 2018) and thus gives out satisfactory evaluation (Pham & Ahammad, 2017). Based on the above statement, this study proposes the following hypothesis:

H6. Positive emotion has a significantly positive effect on satisfaction.

2.7.5 The Linkage between Brand Identification and Satisfaction

Brand identification refers to a close overlap held by both customers and a brand (Davvetas & Diamantopoulos, 2017). When the selected brand helps foster personal expression (Brakus *et al.*, 2009), the successful self-expression and perceived congruency makes them feel more satisfied with the brand purchase (Japutra & Molinillo, 2017). Therefore, the fulfillment of their “identity satiation” contributes to brand satisfaction (Chernev, Hamilton & Gal, 2011). Meanwhile, the powerful function of brand identification continuously strengthens the attractiveness of the chosen one and attenuates the advantages of refused counterparts to remain the post-choice satisfaction (Davvetas & Diamantopoulos, 2017). Based on the above, this study proposes the following hypothesis:

H7. Brand identification has a significantly positive effect on satisfaction.

2.7.6 The Linkage between Satisfaction and Brand Loyalty Performance

Based on social theory, customers perceive obligation to contribute feedbacks when they benefit from others or organizations (Groth, 2005; Xie *et al.*, 2017). In one hand, customers perform citizenship behaviors as a favor return to fellow members when they perceive satisfied belongingness of psychological needs (Chiu, Huang, Cheng & Sun, 2015). It serves as a feedback of member treatment from support community, so satisfaction is a vital predictor to motivate such behaviors (Zhu *et al.*, 2016). Similarly, under the principle of reciprocity (Gouldner, 1960), consumers with brand satisfaction are more prone to put in additional efforts because the satisfied state for the demands produces a sense of well-being (Ryan & Deci, 2001).

Satisfied holistic evaluation of service delivery is regarded necessary for willingness to revisit and recommend (Han *et al.*, 2009). When consumers obtain preferred outcomes, they tend to repeat the occurrence (Sahin *et al.*, 2011). Therefore, the satisfaction derived from past favorable incidents serves as an assessment to predict future consumption decision (Alnawas & Altarifi, 2015). It determines the strength of brand loyalty (Rundle-Thiele & Bennett, 2001). Meanwhile, loyalty, categorized as an in-role orientation, is not fully for self-interests (Ahearne *et al.*, 2005; Coelho *et al.*, 2018). On belief of customer value co-creation (Johnson & Rapp, 2010), satisfied consumers spread positive WOM to return salient service quality (Srinivasan, Anderson & Ponnnavolu, 2002). Based on the above, hypotheses are proposed:

H8. Satisfaction has a significantly positive effect on community citizenship behavior.

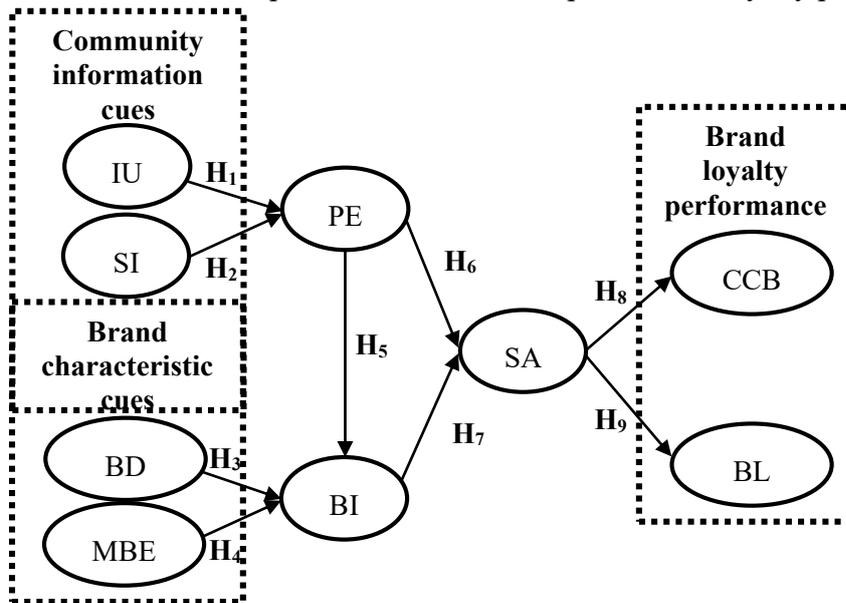
H9. Satisfaction has a significantly positive effect on brand loyalty.

3. Methodology

3.1 Research Framework and Hypotheses

According to previous studies, the research model examines the causal relationship of online communities from two points of view including community information cues and brand characteristic cues. The former one can be further divided into IU and SI while the latter one is composed of BD and MBE. These four antecedent variables play roles to illustrate users' motivation of Fan Page selection. Besides, PE, BI, and SA function as the mediators in this

study. They account for the cause and effect relationships between the antecedents and variables whereas CCB and BL serve as the dependent variables to explain brand loyalty performance.



Note : IU = Information Uniqueness; SI = Social Interactivity; BD = Brand Distinctiveness; MBE = Memorable Brand Experience; PE = Positive Emotion; BI = Brand Identification; SA = Satisfaction; CCB = Community Citizenship Behavior; BL = Brand Loyalty.

Figure 1 Research Framework

3.2 Operational Definitions and Questionnaire Design

The questionnaire is comprised of 10 parts including 9 construct scales and demographic variables. While personal statistics belong to categorical variable information, all other 34 items are measured by seven-point Likert scale. The full list is presented in Table 2.

Table 2 The Operational Definitions and Item Source

Construct	Operational Definition	Items	Source
IU	The degree of information originality and differentiation perceived by users through the messages posted on the Facebook Fan Page.	3	Wang, Zhou, Jin, Fang & Lee (2017)
SI	PII	The degree of amounts of related product information on the Facebook Fan Page.	Luo, Zhang, Hu & Wang (2016)
	II	The degree of mutual interpersonal communication made by community members on the Facebook Fan Page.	
BD	The degree that the brand can be recognized because of its unique and outstanding features from other brands.	3	Stokburger-Sauer, Ratneshwar & Sen (2012)
MBE	The degree evaluated by consumers according to their perception of remarkable product experience shaped by the babies' reaction after using the brand.	3	So, King, Hudson & Meng (2017)
PE	The degree of positive feelings perceived of the consumers according to the babies' reaction after using the brand.	4	Balaji, Roy & Quazi (2017)
BI	The degree of consumers' subjective evaluation of self-congruence toward the brand.	3	Yeh, Wang & Yieh (2016)
SA	The degree of a pleasant feeling occurred when the brand satisfies the consumers and meets their personal needs.	3	Davvetas & Diamantopoulos (2017)
CCB	The degree of problem-solving contribution and voluntary recommendation made by the users to effective community functioning and brand popularity.	4	Wu, Huang, Tsai & Lin (2017)
BL	The degree of strength that consumers stick to a certain brand and keep repeating patronage if conditions allow.	5	Japutra & Molinillo (2017)

Note : IU = Information Uniqueness; SI-PII = Social Interactivity - Product-information interaction; SI-II = Social Interactivity - Interpersonal interaction; BD = Brand Distinctiveness; MBE = Memorable Brand Experience; PE = Positive Emotion; BI = Brand Identification; SA = Satisfaction; CCB = Community Citizenship Behavior; BL = Brand Loyalty.

3.3 Questionnaire Pre-test

The pretest survey had been conducted since October 1st to December 31st in 2017. 300 participants were collected and 210 pieces were qualified for the statistical analysis after deducting invalid responding. Rate of effective sample size is 70%. Data with a skewness under an absolute value of 3.0 and kurtosis under an absolute value of 10 are considered acceptable (Kline, 1998). As shown in Table 3, all the skewness and kurtosis coefficients of each construct fall inside the range of suggested values. Therefore, the data of the nine constructs can be said normally distributed.

Table 3 The Absolute Values of Skewness and Kurtosis Coefficient of Each Construct

Constructs (N = 210)	Absolute Value of Skewness Coefficient of Each Construct	Absolute Value of Kurtosis Coefficients of Each Construct
Information Uniqueness	0.123 ~ 0.542	0.010 ~ 0.105
Social Interactivity	0.028 ~ 0.459	0.047 ~ 0.709
Brand Distinctiveness	0.053 ~ 0.466	0.342 ~ 0.546
Memorable Brand Experiences	0.365 ~ 0.454	0.155 ~ 0.543
Positive Emotions	0.168 ~ 0.291	0.348 ~ 0.715
Brand Identification	0.148 ~ 0.310	0.157 ~ 0.376
Satisfaction	0.134 ~ 0.348	0.299 ~ 0.717
Customer Citizenship Behavior	0.252 ~ 0.623	0.030 ~ 0.785
Brand Loyalty	0.125 ~ 0.520	0.012 ~ 0.493

This study applied Harman's one-factor-test to verify whether common method variance (CMV) problem exists. First, all number of items were measured to conduct an exploratory factor analysis (EFA) on SPSS. 5 factors were extracted and the first factor was indicated to be 42.384%, lower than 50%, the suggested maximum. Second, the study compared the single factor model fit and measurement model fit. Overall, the results signify the measurement one (Chi-square = 985.0, DF = 482, GFI = 0.792, AGFI = 0.744, IFI = 0.929, CFI = 0.929, RMSR = 0.078) has a sign of better model fit than the single factor one (Chi-square = 2927.8, DF = 527, GFI = 0.453, AGFI = 0.382, IFI = 0.661, CFI = 0.659, RMSR = 0.140). According to the examination standard proposed by Mossholder, Bennett, Kemery and Wesolowski (1998), it points out the data has no serious measurement error like common method biases.

The statistical results of the pretest are listed as following: (1) Factor loadings of all items exceed the minimum criterion of 0.5 suggested by Hair Jr., Black, Babin and Anderson (2016), and all SMC values are greater than the threshold (SMC>0.2) proposed by Bentler and Wu (1993) and Jöreskog and Sörbom (1993). Meanwhile, the reliability coefficients for all sets of variables rise above the standard (Cronbach's α >0.7) recommended by Nunnally (1978); (2) The convergent validity is proved since the values of each construct are higher than the standard (CR>0.6) recommended by Anderson and Gerbing (1988) when CFAs also achieve the standard (AVE>0.5) introduced by Bagozzi and Yi (1988); (3) correlation coefficient matrix of variables meet the criteria presented by Gaski and Nevin (1985) and Fornell and Larcker (1981): (1) the correlation coefficient of any two constructs would be less than 1; (2) the correlation coefficient of any two constructs would be less than the Cronbach's α reliability coefficients; (3) the correlation coefficient of any two constructs would be smaller than the square root of the AVE of every construct. Thus, the items of pretest are capable to be used in the formal questionnaire.

4. Data Analysis and Results

4.1 Formal Questionnaire and Descriptive Statistical Analysis

This study aims at exploring the influence process from binal antecedent cues toward the behavioral consequences with the Facebook Fan Page members of baby diaper brands. Based on the reports of DailyView (2017) and OpView (2017), MamyPoko, Merries, and Pampers dominate the top three supported brands of baby diapers. Therefore, the present study invites the participants who have joined one of the Fan Pages at least for more than six months to be the targeted subjects. The online questionnaire of this study had been placed on the above virtual platforms for filling out since April 1st to September 30th in 2018. 840 participants were collected and 648 pieces were qualified for the statistical analyses after deducting invalid responding. The rate of effective sample size is 77.1%. There were 308 participants living north region of Taiwan (47.5%), 149 living in central region (23.0%), 177 living in south region (27.3), and 14 living in east region (2.2%). To reflect the precise population structure, this study adopts the report of InsightXplorer on November 1st in 2016 about Internet domain overview of family parenting category. The place of resident is selected to examine the sample structure, and Chi-square Test is conducted to compare the percentage of the subjects' living area with that of InsightXplorer's participants. In order to achieve the measurement unity, the small percentage of east region of Taiwan (2.2%), island district (0%), and others (0%) of this study are integrated into southern region of Taiwan. And the result of the chi-square goodness-of-fit test shows that the degree of freedom is 2, and the p-value of χ^2 is 0.716, which is larger than 0.05. It manifests that the null hypothesis of the test cannot be rejected (H_0 : north region of Taiwan = 45.9%, central region of Taiwan = 26.3%, south region of Taiwan = 27.8%; H_a : north region of Taiwan = 47.5%, central region of Taiwan = 23.0%, south region of Taiwan = 29.5%). Therefore, there is no significance difference between the sample structure and the population structure provided by InsightXplorer in this study.

The female proportion of samples contains 77.8% while male proportion is 22.2%. When it comes to the age, the participants of 30 to 39 year-old dominate the most (57.1%). As for educational degree, the participants with bachelor/associate degree dominate the most (71.1%). As for occupation, the participants working in the service industry dominate the most (28.1%). As for residential area, the participants living in the northern region of Taiwan dominate the most (47.5%). As for average monthly income, the participants who earn NT 20,001~40,000 per month dominate the most (41.4%). As for Internet usage, the option of over 4 years dominates the most percentage (91.2%). As for average hours spent on the Internet per day, the participants who spend 4~6 hours per day dominate the most (42.6%). As for baby diaper's Facebook Fan Page usage, the option of below 1 year dominates the most percentage (38.6%). As for average hours spent on baby diaper's Facebook Fan Page per day, the option of below 1 hour dominates 75.5%.

4.2 Examination of Common Method Variance

To deter from CMV, the questionnaire applied here is designed on the base of the following methods: guaranteeing respondent anonymity, counterbalancing question order, improving scale items, and adopting different response formats such as semantic differential scales and Likert scales, etc. to prevent single source bias (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). After invalid samples are eliminated, Harman's one-factor-test is applied. First, exploratory factor analysis (EFA) is conducted. There are six factors being extracted and the explained variance proportion of the first factor is 49.601%, which is lower than 50%. Second, confirmatory factor analysis (CFA) is conducted. 9 sets of items (34 items) are subsumed into one-factor and not every factor loading of all the items is higher than 0.5. Third, the model fit of one-factor-model and that of the proposed research model are compared. The proposed research model fit (Chi-square = 2031.4, DF = 501, GFI = 0.832, AGFI = 0.801, RMSR = 0.105, IFI = 0.921, CFI = 0.921) is better than one factor model fit (Chi-square = 7221.5, DF = 527, GFI = 0.510, AGFI = 0.447, RMSR = 0.133, IFI = 0.656, CFI = 0.655, RMSR = 0.133). Based on the examination standard proposed by Mossholder *et al.* (1998), there is no significant problem of CMV existing in the formal survey data.

4.3 Reliability and Validity Analysis

To conduct reliability analysis, item reliability and construct reliability are included in this study. The measurement of construct reliability hinges on the calculation of Cronbach's α , and the values of this study range from 0.799 to 0.937 which are all above the suggested rate of 0.7 (Nunnally, 1978). Therefore, the constructs are believed to attain acceptable internal consistency. Item reliability relies on the evaluation of factor loading and SMC. And the factor loadings of all the items in this study are all above 0.7, higher than the suggested rate of 0.5 (Hair Jr. *et al.*, 2016). Additionally, the SMC values are all over 0.4, higher than the suggested rate of 0.2 (Bentler & Wu, 1993; Jöreskog & Sörbom, 1993). These manifest that items in this study are significantly related to the construct they belong to.

The validity analysis is explained by convergent validity and discriminate validity. According to the suggestion from Hair Jr. *et al.* (2016), composite reliability (CR) and average variance extracted (AVE) are the thresholds for the evaluation of convergent validity. The results indicate the CR values of all the constructs are above the suggested rate of 0.8 which represents internal consistency of each variable (Hulland, 1999). Additionally, the values of AVE are all above the suggested rate of 0.5 which reflect the significance of all the variables in relation to the construct they belonging to (Fornell & Larcker, 1981). Therefore, each construct of this study is considered to equip good convergent validity. As for discriminant validity, the matrix of the correlation coefficients qualifies the criteria suggested by former scholars (Gaski & Nevin, 1985; Fornell & Larcker, 1981). Therefore, it indicates that the construct of this study contains acceptable discriminate validity. The values including Cronbach's α , correlation coefficients, CRs, and AVEs are organized in the following Table 4.

Table 4 Correlation Matrix for Measurement Scales

Construct	IU	SI-PII	SI-II	BD	MBE	PE	BI	SA	CCB	BL
IU	0.809	0.643***	0.482***	0.682***	0.602***	0.572***	0.582***	0.424***	0.420***	0.495***
SI-PII	0.545***	0.764	0.565***	0.734***	0.677***	0.763***	0.525***	0.588***	0.522***	0.558***
SI-II	0.417***	0.497***	0.849	0.403***	0.510***	0.560***	0.573***	0.413***	0.531***	0.442***
BD	0.597***	0.605***	0.344***	0.799	0.736***	0.690***	0.536***	0.677***	0.592***	0.597***
MBE	0.552***	0.589***	0.479***	0.666***	0.869	0.793***	0.681***	0.682***	0.688***	0.675***
PE	0.515***	0.671***	0.532***	0.602***	0.734***	0.887	0.669***	0.699***	0.684***	0.691***
BI	0.504***	0.474***	0.535***	0.465***	0.644***	0.640***	0.888	0.641***	0.671***	0.780***
SA	0.395***	0.516***	0.392***	0.599***	0.645***	0.648***	0.622***	0.878	0.784***	0.827***
CCB	0.382***	0.454***	0.519***	0.512***	0.626***	0.621***	0.649***	0.702***	0.829	0.802***
BL	0.448***	0.492***	0.421***	0.514***	0.632***	0.643***	0.739***	0.763***	0.725***	0.844
Cronbach's α	0.842	0.799	0.878	0.837	0.899	0.937	0.915	0.908	0.895	0.924
CR	0.848	0.805	0.884	0.840	0.902	0.937	0.918	0.910	0.897	0.925
AVE	0.655	0.583	0.720	0.638	0.755	0.787	0.789	0.771	0.687	0.713

Note : IU = Information Uniqueness; SI-PII = Social Interactivity - Product-information interaction; SI-II = Social Interactivity - Interpersonal interaction; BD = Brand Distinctiveness; MBE = Memorable Brand Experience; PE = Positive Emotion; BI = Brand Identification; SA = Satisfaction; CCB = Community Citizenship Behavior; BL = Brand Loyalty. Diagonal elements are the square root of the average variance extracted of each construct; Pearson correlations are shown below the diagonal. p<0.05; **<0.01; ***<0.001

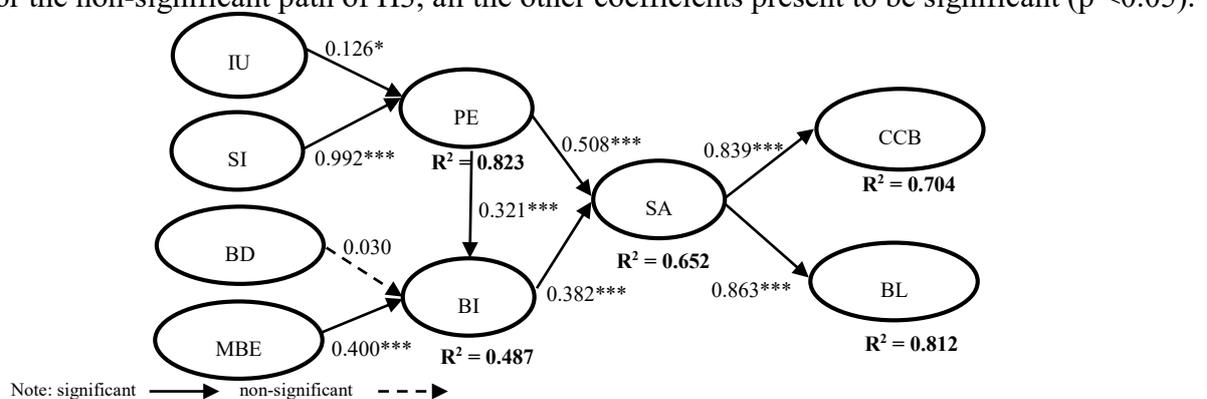
4.4 Structural Model

The specific information are illustrated in Table 5. In which, $\chi^2 = 2031.4$ reaches a significant level (p<0.05). When sample sizes are more than 250 pieces and observed variables are smaller than 12, p-value of χ^2 is prone to reach a significant level even the goodness of fit is acceptable (Hair Jr. *et al.*, 2016). There are more than 600 samples in this study, so other indices need to be inspected together. On the other hand, both $\chi^2/DF (=4.055)$ and RMSR (=0.105) fail to reach the suggested thresholds, but they are close to the standard values. Besides, most indices conform to the thresholds, so the model still has an acceptable goodness of fit.

Table 5 Goodness-of-Fit Measures of Overall Structural Model

Fit Indices for Measurement	Absolute Fit Measures							
	χ^2	χ^2/df	GFI	AGFI	RMSR	RMSEA		
The research model	p < 0.05	4.055	0.832	0.801	0.105	0.069		
Suggested threshold	p > 0.05	< 3	> 0.9 (> 0.8 is also accepted)		< 0.05 (< 0.08 is also accepted)			
Fit Indices for Measurement	Incremental Fit Measures					Parsimonious Fit Measures		
	NFI	IFI	RFI	TLI	CFI	PNFI	PGFI	PCFI
The research model	0.898	0.921	0.886	0.912	0.921	0.802	0.701	0.832
Suggested threshold	> 0.9 (> 0.8 is also accepted)					> 0.5		

Regarding the examination of proposed hypotheses, SEM is applied to explore the causal relationship between latent variables. The results of path analysis are listed in Figure 2. Except for the non-significant path of H3, all the other coefficients present to be significant (p < 0.05).

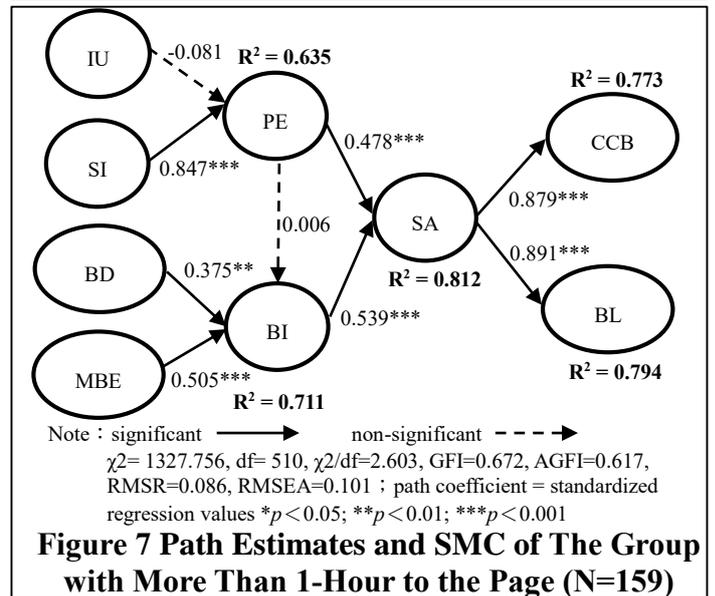
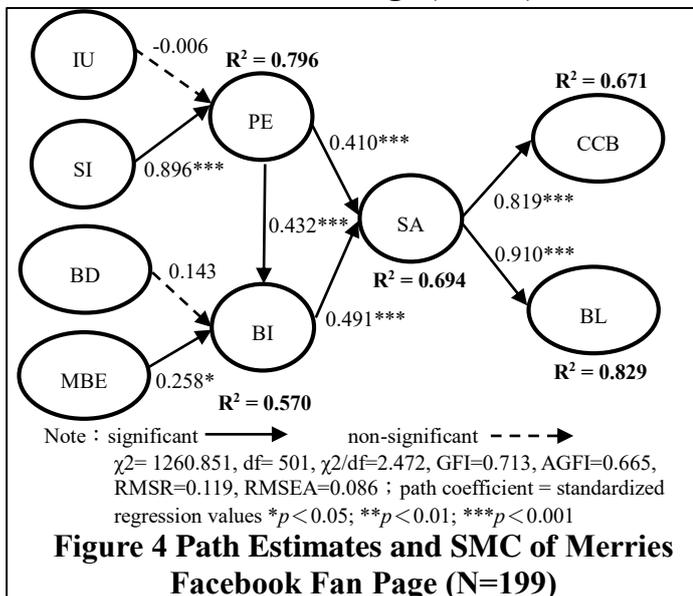
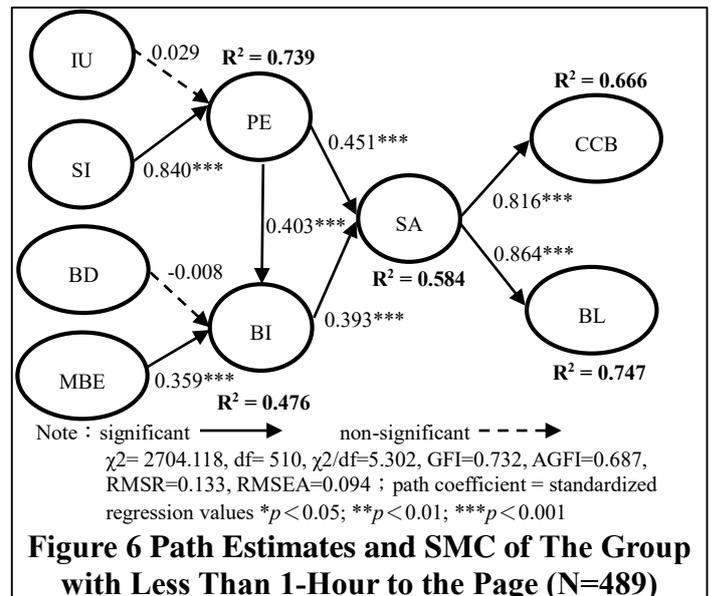
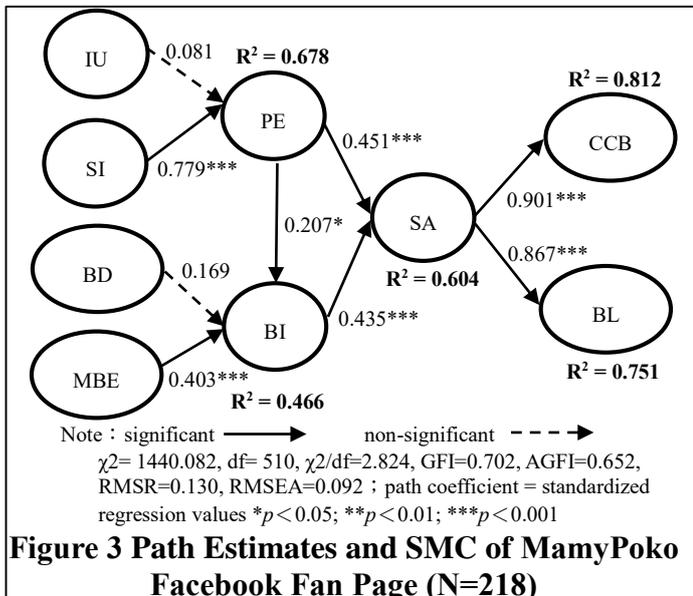


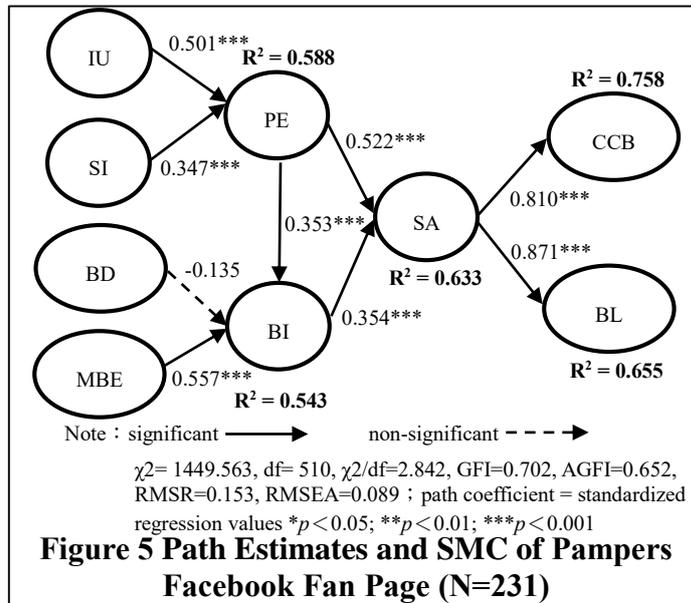
Note: significant \longrightarrow non-significant \dashrightarrow
 $\chi^2 = 2031.371$, $df = 501$, $\chi^2/df = 4.500$, $GFI = 0.832$, $AGFI = 0.801$, $RMSR = 0.105$, $RMSEA = 0.069$; path coefficient = standardized regression values *p < 0.05; **p < 0.01; ***p < 0.001; IU = Information Uniqueness; SI = Social Interactivity; BD = Brand Distinctiveness; MBE = Memorable Brand Experience; PE = Positive Emotion; BI = Brand Identification; SA = Satisfaction; CCB = Community Citizenship Behavior; BL = Brand Loyalty.

Figure 2 Standardized Path Estimates and SMC for the Research Structural Model

4.5 The Comparison and Analysis of Multi-Group Samples

There are five sets of multi-group path analysis based on the diaper brands (MamyPoko, Merries & Pampers) and hour attention to the brand fan page per day (less than 1- & more than 1-hour) as Figure 3~7, and group differences exist with significant p-value (diaper brands: $\chi^2=4150.498$, $df=1530$, $p=0.000$; hour attention per-day: $\chi^2=4033.331$, $df=1020$, $p=0.000$). (1) MamyPoko & Merries: SI is significant to PE, and so does MBE to BI. PE is also influential on BI. Both PE and BI have significant influence on SA. SA significantly influences on Brand Loyalty Performance (CCB & BL). (2) Pampers: Both IU and SI present significant on PE while only MBE of brand characteristic cues presents significant influence on BI. PE is influential on BI. Both PE and BI have significant influence on SA. SA is significant to Brand Loyalty Performance. (3) Hour attention less than 1: SI is significant on PE, so do MBE and PE to BI. Both PE and BI have significant influence on SA, which has a significantly influence on brand loyalty performance. (4) Hour attention more than 1: While SI presents significant on PE, both BD and MBE of brand characteristic cues is significant on BI. PE and BI have influences on SA. SA is significant on CCB and BL.





4.6 Post Analysis: Tests of Mediation Effects

To further explore the mediation effects of PE, BI, and SA, regression analysis and the results of Sobel test are displayed here. Sobel test works well only in large samples with a normal distribution, and it is also on condition that both independent variable and mediator carry positive significance to a dependent variable in regression analysis (Baron & Kenny, 1986). It can explain the null hypothesis (H_0) rejection if the Z score is higher than 1.96 ($Z > 1.96$), which indicates the existence of mediation effects. The results, shown in Table 6, point out that the partial mediation of PE, BI, and SA is occurring to the extent related variables.

Table 6 The Regression Analysis of Mediation Effects and Sobel Test

IV	M	DV	IV→M	IV→DV	IV+M→DV		Sobel Test
					IV	M	
IU	PE	SA	0.519***	0.396***	0.083*	0.602***	2.349*
SI	PE	SA	0.711***	0.532***	0.138**	0.554***	3.197**
IU	PE	BI	0.519***	0.689***	0.325***	0.702***	6.298***
SI	PE	BI	0.711***	0.827***	0.394***	0.610***	5.972***
MBE	BI	SA	0.814***	0.597***	0.386***	0.260***	7.344***
PE	BI	SA	0.868***	0.644***	0.421***	0.258***	7.340***
PE	SA	CCB	0.644***	0.654***	0.302***	0.546***	7.142***
BI	SA	CCB	0.456***	0.504***	0.269***	0.515***	8.463***
PE	SA	BL	0.644***	0.743***	0.295***	0.695***	7.339***
BI	SA	BL	0.456***	0.630***	0.367***	0.576***	11.654***

Note: IV: Independent Variable; M: Mediator; DV: Dependent Variable; IU: Information Uniqueness; SI: Social Interactivity; MBE: Memorable Brand Experience; PE: Positive Emotion; SA: Satisfaction; BI: Brand Identification; CCB: Community Citizenship Behavior; BL: Brand Loyalty; BI: Brand Identification; *: $p < 0.05$; **: $p < 0.01$; ***: $p < 0.001$

5. Conclusion and Suggestion

5.1 Research Conclusion

5.1.1 Results of the Structural Model and Hypotheses Examination

The structural model is developed based on the literature review and academic analysis. Although both χ^2/DF and RMSR fail to reach the recommended values, they are close to the standards. Besides, most indices conform to the suggested values, so the goodness of fit is still acceptable. It indicates that the research model and conceptual framework are beneficial to

explore antecedents of brand loyalty performance presented by Facebook Fan Page members of MamyPoko, Merries, and Pampers. The results show that: (1.) IU and SI of community information cues are in relation to PE to the brand; (2.) BD of brand characteristic cues does not present significant influence on BI, but it does for MBE to BI; (3.) PE is in relation to BI; (4.) PE and BI is in relation to SA; (5.) SA is in relation to the brand loyalty performance.

5.1.2 Results of the Multi-Group Analysis and Hypotheses Examination

In MamyPoko Fan Page group, IU is unable to motivate positive emotional connection. The reasons may be inferred from the Fan Page management and product attributes. The decrease of distinctive information like discussion threads or related parenting posts and controversial product revision impedes members from brand engagement. Therefore, MamyPoko is suggested to grasp members' expectation and strengthen the prominent characteristics that keep attracting consumers. In Merries Fan Page group, IU is unable to present PE, either. The reasons may be inferred from brand positioning and package recognition. Unclear packaging designs of product features and deficient distinctive information may hardly arouse members' empathy. Therefore, Merries is suggested to conduct product promotion, introducing the outstanding functions of the two styles through the posts. At the same time, convey exact brand spirit so that the embodied image can be understood and then generate emotional connections. In Pampers Fan Page group, on the other hand, unique information that motivates positive feelings and emotional connection is confirmed to be significant. The reasons may be inferred from Facebook management and product promotion. Pampers Fan Page has almost 20 million members keeping tracking. Frequent updating and unique initiation of activities strengthen the community information. And these brands, BD does not have a significant influence on the connection with consumers' self-congruence. It may be inferred that baby diaper attributes hardly express a strong sense of belonging for consumers due to the lack of firsthand experience after all. The clarification of consumers' real psychological needs plays an important role since the need of diaper buyers are different from that of diaper users. Satisfied with the expected image that the brand strategically builds up for its consumers, loyalty performances are then prone to be triggered.

For hour attention groups with more than 1 and less than 1 hour, IU has no significant influence on positive emotion for both groups. For less than 1 hour group, BD does not have a significant influence on brand identification, but it does for more than 1 hour group. It may be inferred from the pressing "Like" culture on Facebook. Instead of showing a real passion for the brand, users put more focus on price comparison while lacking linkage between distinctive product attributes and self-concept. The idea is similar to previous studies (Schau, Muñiz & Arnould, 2009; Sung, Kim, Kwon & Moon, 2010). On the other hand, for more than 1 hour group, PE does not have a significant influence on BI, but it does for less than 1 hour group. It may be inferred from the quantity of information seeking on the Internet. For those who are willing to invest more attention time in the Fan Page, they are more enthusiastic and possess high-standard requirement.

5.2 Managerial Implications and Research Contributions

5.2.1 Managerial Implications for Academic

First, the empirical results indicate that both IU and SI from community information cues have positive significance on PE. The outcomes are consistent with the prior research (Wang *et al.*, 2017; Luo *et al.*, 2016; Lin & Chang, 2018). Therefore, Facebook Fan Page is supposed to be a resource and notice individual news feeds. The provision of current product information, hygienic contents, and related baby nursery reports are fundamental. Online discounts, live stream, question-and-answer, or online quiz tests with gift rewards are also helpful for promotion and member engagement. At the same time, being a moderator to make sure members are playing nice so that the operation of the page can continue smoothly.

Second, the empirical results indicate that MBE from brand characteristic cues has positive significance on BI. The outcome is consistent with the prior research (Brakus *et al.*, 2009; Stokburger-Sauer *et al.*, 2012; Zarantonello & Schmitt, 2013; So *et al.*, 2017). On the other hand, BD is significant to BI, which is consistent with the prior research (So *et al.*, 2017). It can be inferred that the brand recognition and distinctive features of baby diapers hardly arouse adults' self-congruence since the product attributes are not meant for them. Without direct personal experience, baby diapers can barely strike a chord with the grown-ups. Therefore, baby diaper brands are supposed to convey favorable product experiences so that members' self-categorization corresponds to the image of responsible and wonderful parents. The improvement of product function, price, and worthiness are fundamental. Discounts, package designs, celebrity endorsement are also helpful for promotion and create fabulous memories.

Third, mediators in this study are PE, BI, and SA. The results indicate that PE has a significant influence on BI, and it corresponds to the prior research (Stokburger-Sauer *et al.*, 2012; Chih, Hsu & Lin, 2014; Hsu, Chih & Lin, 2015). Also, PE serves as an influential mediator between community information cues (IU & SI) and SA, similar to the prior research (Luo *et al.*, 2016; Wang *et al.*, 2017; Balaji *et al.*, 2017; Shin *et al.*, 2017). BI also displays significant mediation effects between MBE and SA, similar to former studies (He & Li, 2011; Carillo, Huff & Chawner, 2017). Additionally, SA functions as a vivid mediator between PE to brand loyalty performance (CCB & BL). It also mediates between BI and brand loyalty performance, identical to the previous literature (Davvetas & Diamantopoulos, 2017; He & Li, 2011). The agreement of unique information search and personal needs thus reinforce the self-definition to complete the overall brand satisfaction, and the occurrence of pleasant feelings enhances Fan Page members to perform enthusiastically supportive behaviors.

Finally, the empirical results indicate that SA has significantly positive influences on both CCB and BL of brand loyalty performance. The outcome is consistent with the prior research (Groth, Mertens & Murphy, 2005; Sahin *et al.*, 2011; Anaza, 2014). It is suggested that baby diapers manage their brands through both physical approach and virtual interaction to find out the characteristics that the targeted customers pay attention to the most. The former one includes

the operation of a questionnaire, interview, or focus group while the latter one contains online voting, discussion, survey, or Fan Page communication. In marketing strategy, to meet customers' desired requirement helps strengthen their affective perception and then perform prosocial contributions because of the spontaneous obligation to response reciprocity in turn.

5.2.2 Managerial Implications for Practice

(1) Use communities to strengthen memorable brand experience, make precise advertising investment, and provide unique information

Facebook users can easily become members by a simple click of "Like". Those fake members only come for preferential treatments, and then directly walk away once the events are over while the "real" members may miss the information, instead. It rather loses the meaning of managing a Fan Page. It is suggested that marketers make precise advertise and create appropriate interaction through distinctive information to recruit real members and increase their stay on site. For example, Pampers periodically ignites popular and intellectual conversations, which are always related to what the target customers care the most, their children, instead of product-oriented. Additionally, the mechanisms of Wall Contest, lottery, or point collection to win rewards are intriguing. In reality, the combination of sending samples in postpartum care centers aims at the target audience exactly. It allurs mothers to share personal experiences more effectively. In this case, the brand pays attention to both community cues and favorable experiences, so its Fan Page owns numerous online members and repetitive customers. Increasing truly purposive fans helps manage such Fan Pages in the long run. Thereofre, marketers are suggested to provide unique information so that members are able to really comprehend their communities and product features to increase users' retention time.

(2) Comfortability versus convenience – the importance to create memorable brand experience: clarify targets and cultivate insights to dig out both mommies and babies' needs

Baby diapers are special products since the real users are newborns who still can't talk. Instead, parents stand out to make the decision-making of purchase. Customers actually lack of product-using experiences. Relying on observations and experiments, functions like comfortability, absorbency, or breathability are what they pay attention to. Brands also put a lot of efforts in promoting product strengths. But what about the services that are provided for "real" buyers? Standing in consumers' shoes, some convenient mechanisms can be further provided. For example, for energetic babies, the nappies that are specially designed such as Little Movers from Huggies ease the stress of disastrous cleaning-up, and babies still own comfortable movement during active play. Also, diapers with urine reagent strips such as Ultra Thin from K-MOM indicate blue lines to give out a diagnostic warning for moms. The detection allows moms to change dirty nappies immediately, and babies can receive prompt cleaning and comfortable dryness. In these case, sweet designs satisfy both parents and babies. For the diaper industry, the creation of memorable brand experiences can focus on not only users but also buyers. Increasing such insights of both comfortability for babies and convenience for moms

helps manage diaper brands in the long run. Their feedbacks become encouraging words for potential buyers more or less. Therefore, marketers are suggested to work out deep intuition and desires for both sides, and product users and buyers can be pleased at the same time.

(3) Take advantage of positive emotion and brand identification to facilitate levels of satisfaction for customers

Satisfaction is an important variable promoting the display of brand loyalty performance, and its mediation effects should not be neglected so that a positive circulation of consumption patterns can keep occurring. It is suggested that brands provide incentives for consumers to express their product reflection and feedback. For example, MamiBuy takes the hall of fame in running Taiwanese mom community. The founders notice children with different ages can bring various pain points in parenting, so the most popular function of the platform is "small circles" such as same-age circle or celebrity circle, similar to the function of forums. And the encouragement of giving feedbacks provide a stage attracting more master moms to display what they have got. In this case, the applause from audience gathers more viewers and then shapes positive network effect. Increasing such acumen of consumers' satisfaction degrees and keep pace with their ideal-self help manage diaper brands in the long run. Therefore, marketers are suggested to strengthen these attributes to enhance consumers' contentment for the brand.

5.3 Research Limitations and Suggestions

Based on the results, research limitation and suggestions are proposed for future studies. First of all, this study conducts a cross-section survey method because of the limitations of time, manpower and resources. It is suggested that longitudinal section survey method can be adopted to observe long-term changes of members' purposes, which help understand causal relationship of the consistent intention of Facebook community. Secondly, this study applies online questionnaires to collect samples. Due to the limited time of answering, the mathematical deviation may exist. It is suggested that the combination of mobile questionnaire interface can be taken into consideration to increase the overall response rate. Third, our research domain focus on Facebook community and its users. It is suggested that future research can expand the target subjects to other community users. Finally, the items in this study are exerted from prior foreign studies and translated into Mandarin to fit in the research context of the Taiwanese environment. But there might be a failure of fully exact expression of the original meanings.

The research subject of this study focuses on the domain of baby diaper brands. The specialty of the products emphasizes the difference between the actual users and purchase decision makers. Therefore, future research is suggested to explore the exogenous variables that may affect the intentions of both users and buyers, respectively. For example, the theoretical model of cognition-affection-conation (C-A-C) from Oliver (1997), the relationship between community identification and brand identification (Yeh & Choi, 2011; Hsu *et al.*, 2015), commonalities and differences among buyers and users (Moon & Tikoo, 2002).