Loyalty layers and expectations: the key to relationships

Abstract

Purpose - Adopting exchange theory and social orientation of loyalty, this research investigates the antecedents of customer loyalty consisting of (1) loyalty layers (i.e. personal loyalty, relationship with consumption communities, and local network effects) and (2) loyalty expectations (i.e. service quality, reciprocity and firm innovativeness), and how these relationships are moderated by customer knowledge.

Design/methodology/approach - The data were collected from 4,208 customers in the mobile services industry using mall intercept technique.

Findings - The findings reveal that loyalty layers, including personal loyalty and relationship with consumption communities, can influence customers' expectations of service providers. The degree to which the firm is able to handle and meet customers' expectations over time would result in the strength of customer loyalty. Customer expectations also mediate the relationships between different loyalty layers and customer loyalty. In addition, customer knowledge significantly moderates the effects of loyalty layers and expectations on both attitudinal loyalty and behavioural loyalty.

Originality/value - The study extends the current body of knowledge by incorporating a sociological perspective to examine the relationships between loyalty layers and customer expectations and customer loyalty. This research enables service operators to establish strategies to sustain customer loyalty across different customer segments with various levels of knowledge.

Keywords - customer loyalty; loyalty layers; customer expectations; service quality; reciprocity; innovativeness; relationship marketing.

1. Introduction

Customer loyalty is fundamental to every business – and all the more so in today's intensely competitive business environment (Thaichon *et al*., 2014; Zeithaml, Berry and Parasuraman, 1996). However, there is still little consensus on the factors that generate customer loyalty as the marketing environment has become significantly more diverse. Chuah *et al.* (2017) have called for more empirical research examining the importance of customer loyalty's antecedents in the telecommunications sector as decreases in loyalty and higher churn rates are likely to be the trend in this market. Therefore, it is important for telecommunications service providers to understand their customers' new mindsets in order to develop and sustain customer loyalty.

From the sociological perspective, loyalty is a function of social relationships (Connor, 2007). Loyalty forms when one insists on keeping a close relationship and is usually the result of a series of positive experiences such as interactions between customers and employees (Patterson, 2007) and other customers over a period of time (Kincaid, 2003). As these experiences accumulate, individual interactions can be turned into relationships (Bove and Johnson, 2002). Therefore, it is proposed that customer loyalty towards a service provider is influenced by co-existing loyalty layers, including a relationship with company staff (i.e. personal loyalty) (Jones and Taylor, 2012), relationship with other customers in brand and product communities (i.e. relationship with a *consumption community*) (Coulter *et al.,* 2012) and relationship with social contacts (i.e. local network effects) (Chuah *et al.,* 2017). Furthermore, social exchange theory suggests that loyalty can be influenced by different expectations with the exchange experience – they are service quality (Han and Hyun, 2017), firm innovativeness (Quach, Hewege and Thaichon, 2019) and reciprocity (Bove *et al.,* 2009). Moreover, underpinned by the elaboration likelihood model (Petty and Cacioppo 1986), earlier research suggests that the effects of loyalty drivers vary across different customer groups with

different levels of knowledge (Islam and Akagi, 2018). Therefore, understanding the role of customer knowledge can help firms build effective exchange relationships with different customer segments in high tech industries (Chiou, Droge and Hanvanich, 2002).

The current study aims to address these research gaps and contribute to the literature in two main ways. First, we incorporate both loyalty layers and expectations as predictors of customers loyalty in the telecommunications industry, expanding the current understanding of loyalty from a sociological perspective. Second, we examine the moderating effects of customer knowledge on the interactions between loyalty antecedents and both attitudinal and behavioural loyalty, providing implications for customer segmentation, retention and loyalty development. A better understanding of these dynamics is imperative for researchers and managers alike. Such an understanding will enable researchers to focus on the most important antecedents of loyalty, and allow managers to develop more effective marketing programs for different customer segments.

2. Literature review

2.1 Customer loyalty

Since the late 1990s, most researchers have settled on the composite view of loyalty, emphasising the role of both attitudinal loyalty and behavioural loyalty. Whereas attitudinal loyalty is the inner mechanism of loyalty formation, repeat purchase is considered an overt manifestation of behavioural loyalty. Following Worthington, Russell-Bennett and Härtel (2010), this study defines behavioural loyalty as "the consumers' tendency to repurchase revealed through behaviour which can be measured and which impacts directly on brand sales" (p.246). This definition captures the behavioural aspect of loyalty via purchase intention. On the other hand, attitudinal loyalty is defined as "a customer predisposition towards a brand,

which is a function of psychological processes" (Jacoby and Chestnut, 1978). Attitudinal loyalty is often expressed as brand preference and customer advocacy (Li and Petrick, 2010), all of which can be claimed as predispositions and are products of psychological processes.

Previous research in loyalty tend to focus on common loyalty antecedents such as satisfaction (Aksoy *et al.,* 2013; Chuah et al. 2017; Quoquab *et al.* 2018), trust (Lee and Murphy, 2008; Thaichon and Quach, 2015), perceived service quality and perceived value (Han and Hyun, 2017; Quach, Hewege and Thaichon 2019; Quach, Thaichon and Jebarajakirthy, 2016; Malhotra and Malhotra, 2013; Rizomyliotis *et al.,* 2020), switching costs (Chuah et al. 2017; Czajkowski and Sobolewski, 2016; Lee and Murphy, 2008; Quoquab *et al.* 2018), and commitment (Hur, Park and Kim, 2010). In addition, recent research has also considered innovativeness as a loyalty antecedent (Malhotra and Malhotra, 2013; Pappu and Quester, 2016; Quoquab *et al.* 2018; Quach, Hewege and Thaichon, 2019). However, the findings regarding the predictors of loyalty are not always consistent. For example, there have been mixed results of how innovativeness and loyalty are related (Pappu and Quester, 2016). While some studies establish evidence of a direct effect of innovativeness on loyalty (Eisingerich and Rubera, 2010), others reveal an indirect relationship mediated by other variables such as consumer involvement (Henard and Dacin, 2010), satisfaction (Kunz et al., 2011) and quality (Pappu and Quester, 2016).

This study adopts the sociological perspective and social exchange theory to elucidate the effects of loyalty antecedents. As loyalty is a social phenomenon (Connor, 2007), it is proposed that loyalty to a service provider is influenced by other loyalty layers existing in the relationships between customers and others in the society. These layers can take the forms of personal loyalty (Bove and Johnson, 2002), relationship with a consumption community

(Coulter *et al.,* 2012) and local network effects (Chuah et al., 2017). Moreover, the basic tenets of the social exchange theory suggest that people decide to engage and stay in a particular relationship because the relationship is able to produce satisfactory outcomes (Sabatelli, 1988). Therefore, customers develop expectations in their relationship with service providers, including service quality (Han and Huyn, 2017), reciprocity (Quach, Hewege and Thaichon, 2017) and firm innovativeness (Pappu and Quester, 2016).

Furthermore, there has been increasing interest in the mediating and moderating mechanisms in loyalty formation (e.g., Quoquab *et al.,* 2018; Quach, Hewege and Thaichon, 2019). This research answers the call from Chuah *et al.* (2017) to investigate the potential mediators and moderators in order to enrich the understanding of loyalty. More specifically, we examine the moderating role of customer knowledge on account of its influence on customers' information processing and decision making, underpinned by the elaboration likelihood model (Petty and Cacioppo, 1986; Chiou, Droge and Hanvanich, 2002). The conceptual framework is provided in Figure 1.

- Insert Figure 1 about here -

2.2 The effects of loyalty layers on customer loyalty

<u>*2.2.1 Personal loyalty*</u>

Personal loyalty refers to customer–staff relationships (Bove and Johnson, 2002) and defined as "customers' intention to perform behaviours that signal the motivation to maintain a relationship specifically with the focal salesperson" (Palmatier, Scheer and Steenkamp, 2007, p. 186). Yim, Se and Chan (2008) find evidence for the affect transferred from the customer–employee to the customer–firm-level in hairdressing services. Favourable customer–staff

interactions develop into positive relationships between customers and staff overtime, which ultimately helps reinforce customer–company connections. Research demonstrates that salesperson loyalty creates emotional attachment and social bonding, increasing personal commitment and thus positively influencing firm loyalty (Chai, Malhotra and Dash, 2015; Palmatier *et al*., 2007). However, personal loyalty could be dominant and result in a hostage situation, in which the relationship between customers and employees takes over. As such, losing employees could lead to customer defection or a change in their attitude towards the service firm (Bove and Johnson, 2002). For this reason, customers' loyalty is influenced by their relationship with employees. Therefore, we proposed the following hypothesis:

H_1: Personal loyalty is positively related to (a) attitudinal loyalty and (b) behavioural loyalty.

2.2.2 Relationship with a consumption community

Social involvement includes customers' sense of "commonality" with the vendor and other customers. This feeling is expressed when they engage in involuntary actions such as offering advice to other customers (Goodwin, 1996) or participating in consumption communities (Friedman, Abeele and De Vos, 1993). Social involvement with larger groups can affect individual behaviour (Thatcher and George, 2004). Individuals have gradually shaped their societal identities, consumptive role and developed preferences and propensity to act based on their interactions and relationship with a consumption community (Aksoy *et al.,* 2013). The Internet, especially social media, has fuelled the popularity of consumption/brand communities; many exist without the support of any company (Laroche *et al*., 2012). In these contexts, perceived group norms predict subjects' attitudes as well as behavioural intentions (Terry and Hogg, 1996). Being part of a consumption community, a customer usually feels more normative pressure to express loyalty to a particular company (Thatcher and George,

2004). Therefore, it can be concluded that a consumption community is a force for customer loyalty, leading to the following hypothesis:

H_2: Relationship with the consumption community is positively related to (a) attitudinal loyalty and (b) behavioural loyalty.

2.2.3 Local network effects

In the context of the telecommunications industry, network effects refer to the value emanating from the size of a network (i.e. the number of users), which can influence a consumer's choice of service providers (Birke and Swann, 2010). It is suggested that one's own social networks are a precise measurement of network effects (i.e. local network effects) (Karaçuka, Çatık and Haucap, 2013). Supporting this notion, previous studies suggest that local network effects generate emotional lock-in and decrease customers' tendency to switch to another firm (Czajkowski and Sobolewski, 2016). Furthermore, Chuah *et al*. (2017) contend that local network effects have an impact on customer loyalty as they increase switching barriers, thereby reducing customer inclination to switch to another company. This is particularly true in network industry such as the telecommunications sector which involves the frequent exchange of information among one's social networks such as family, friends, and colleagues (Malhotra and Malhotra, 2013). Therefore, the following hypothesis is formulated:

H_3: Local network effects are positively related to (a) attitudinal loyalty and (b) behavioural loyalty.

2.3 The effects of customer expectations on loyalty

2.3.1 Service quality

Service quality is defined as the overall evaluation of a specific service firm concerning the customer's expectations of how firms in the industry should perform (Parasuraman, Zeithaml

and Berry, 1988). These expectations often vary from person to person and play an important role in loyalty development. Previous research has provided empirical evidence of a significant and positive relationship between service quality and customer loyalty (Quach, Thaichon and Jebarajakirthy, 2016; Rizomyliotis *et al.,* 2020). Malhotra and Malhotra (2013) reveal that service quality reduces customers' intention to switch and increase their inclination to purchase add-ons in the mobile telecommunications industry. Thaichon *et al.*, (2014) indicate that satisfactory service performance is essential to develop and maintain customer loyalty. On the other hand, service failure can erode loyalty. Being unable to maintain satisfactory service quality can result in customers' unfavourable attitudes as well as the intention to switch (Malhotra and Malhotra, 2013). On the basis of this discussion, we propose:

> H_4: Perceived service quality is positively related to (a) attitudinal loyalty and (b) behavioural loyalty.

2.3.2 Reciprocity

Reciprocity is defined as norm-driven by a feeling of obligation to return the favour where there is an expectation that good is given for good obtained (McMullan, 2005). It has been highlighted that reciprocity is an essential ingredient in social stability and is a driver of relational exchange (Pervan, Bove and Johnson, 2009). Research demonstrates that customers do not consider loyalty as a one-way development but a responsive two-way interaction (Wang *et al.*, 2016). Preferential offerings make customers feel privileged, significant and valued (Ryu, and Lee, 2013). Customers are more likely to repurchase out of their expectation of forthcoming rewards within the relationship (Ganesan, 1994). As such, customers who do not feel reciprocation from the company tend to believe that there is a lack of appreciation of their loyalty, causing detrimental effects on the relationship (McMullan, 2005). Lack of reciprocity

can cause frustration and doubt, and as a result, affect customers' feelings about service providers as well as their behavioural intentions. For these reasons, it is hypothesised that:

H_5: Reciprocity is positively related to (a) attitudinal loyalty and (b) behavioural loyalty.

2.3.3 Perceived firm innovativeness

Perceived firm innovativeness can be defined as "a consumer's perception of an enduring firm capability that results in a novel, creative, and impactful ideas and solutions for the market" (Kunz *et al*., 2011, p. 817). As technology becomes an important force in the current business environment, recent research has underscored the importance of innovation and high expectations of a firm's innovativeness (Shams *et al*., 2015). A high level of innovativeness can be achieved by the ability of a company to pioneer in the market, to develop original ideas, and to produce state-of-the-art technology over time. In the context of high-tech industries such as telecommunications services, innovativeness represents the firm effort in developing the relationship with customers (Quach, Hewege and Thaichon, 2019) and can impact consumer loyalty through both functional–cognitive and affective–experiential mechanisms (Kunz *et al*., 2011). As the current business landscape becomes increasingly competitive, innovativeness is often highly regarded by customers, thereby being an essential ingredient for success and for building customer loyalty. Based on the foregoing discussion, we suggest that:

H_6: Perceived firm innovativeness is positively related to (a) attitudinal loyalty and (b) behavioural loyalty.

2.4 Relationship between loyalty layers and customer expectations

Loyalty layers have an impact on customer perceptions and attitudes. Favourable customer–staff interactions foster positive perceptions of the service providers such as quality (Bove and

Johnson, 2002). Befriending company staff also gives customers a sense of being an insider, which helps them to understand changes in the organisation and learn of the firm's innovations and new developments (Patterson, 2007). Also, reciprocity can be boosted by the desirable, cooperative behaviours of the staff with whom the customers develop a personal relationship (Bove *et al.*, 2009). Furthermore, customers and companies do not exist independently of other forces in the market. Previous research reveals that by exchanging information with other members of consumer communities, customers can develop different expectations of the performance of service providers (Mandl and Hogreve, 2018). Customers often share knowledge of service performance, different levels of firm treatment and innovation among their community. This process might result in changes in customers' needs and wants, influencing their perception of actual service quality, reciprocity and firm innovativeness. Therefore, the following hypotheses are proposed:

H_7: Personal loyalty is significantly related to (a) perceived service quality, (b) reciprocity, and (c) perceived innovativeness.

H_8: Relationship with consumption communities is significantly related to (a) perceived service quality, (b) reciprocity, and (c) perceived innovativeness.

2.5 The moderation effects of customer knowledge

Customer knowledge refers to the level of expertise and experiences an individual has in relation to a product or service and the market (Alba and Hutchinson, 1987; Rao and Monroe, 1988). Previous research suggests that the level of knowledge of a customer influences how they evaluate information and make choices (Chiou, Droge and Hanvanich, 2002). According to the elaboration likelihood model (Petty and Cacioppo, 1986), a low-knowledge customer has less ability to assess firm performance whilst a high-knowledge customer is more efficient at information evaluation (Islam and Akagi, 2018). In other words, customers with lower levels

of knowledge tend to rely on simple cues such as relational and tangible cues to make sense of their relationship with service providers (Sharma and Patterson, 2000). In contrast, expert consumers are able to look beyond the superficial layers of services and concentrate on complex attributes such as innovativeness (Moorthy *et al.,* 1997). Therefore, it is expected that, in the context of the telecommunications industry, as customer knowledge increase, the core elements of service (i.e. service quality, innovativeness and reciprocity) are more likely to be stronger predictors of customers loyalty, whereas the impact of relational factors (i.e. personal loyalty, relationship with consumption communities and local network effects) on loyalty will be weaker, and vice versa. The above discussion leads us to the following predictions:

H_9: As the level of customer knowledge increases, the relationships between (a) personal loyalty, (b) relationship with the consumption community and (c) local network effects and attitudinal loyalty will be weaker.

H_{10}: As the level of customer knowledge increases, the relationships between (a) service quality, (b) innovativeness and (c) reciprocity, and attitudinal loyalty will be stronger.

H_{11}: As the level of customer knowledge increases, the relationships between (a) personal loyalty, (b) relationship with the consumption community and (c) local network effects, and behavioural loyalty will be weaker.

H_{12}: As the level of customer knowledge increases, the relationships between (a) service quality, (b) innovativeness and (c) reciprocity, and behavioural loyalty will be stronger.

3. Methodology

3.1 Measures

The personal loyalty scale was adapted from Bove and Johnson (2002). The construct of

relationship with consumption communities was measured using the scale developed by Srinivasana, Andersona and Ponnavolub (2002). The four-item local network effect scale was adapted from the original scale of Karaçuka, Çatık and Haucap (2013), addressing the constraints of social interactions within groups of friends and family. Overall service quality was measured using the scale of He and Li (2010) and the scale for reciprocity was developed and validated by Pervan *et al.* (2009) as a relational exchange accompanied by the expectation of appropriate and proportional returns. The perceived innovativeness scale was taken from Kunz *et al.* (2011). Attitudinal loyalty was adapted from Zeithaml, Berry and Parasuraman (1996) and behavioural loyalty scale (i.e. repurchase behaviour) was measured using a scale of Hellier *et al.* (2003). Finally, customer knowledge was measured using the scale from Tormala and Petty (2007), which revolves around respondents' perceived level of knowledge and information about the mobile telecommunication services.

3.2 Sampling and data collection

Mall intercept technique was employed. The sampling design for this study was a combination of convenience sampling (any adult who happened to be at a given location on a given day and time) and system probability sampling (every fifth adult who passed the data collection point was approached and asked to participate in the study). The researcher remained in public locations such as shopping centres, supermarkets and markets in Vietnam. The eligibility criteria of the respondents were: 18 or older being a mobile phone service user for at least one year. A total of 4,208 completed survey responses were collected. Non-response bias was tested by comparing key demographical characteristics of respondents who returned completed surveys and non-respondents who failed to return a completed survey. Females made up 59.3 per cent of the total sample. Within this sample, 16.7 per cent were students, 76.5 per cent were gainfully employed, and 10.9 per cent were retirees. 80 per cent of the respondents were pre-

paid subscribers, and 20 per cent used post-paid services. On average, respondents had been

with their current service providers for 4.78 years (median four years).

4. Data analysis

4.1 Validity and reliability of constructs

The data were randomly split into halves. Exploratory factor analysis (EFA) was conducted on

the first half using IBM SPSS Statistics 26, and confirmatory factor analysis (CFA) was

conducted in the second half using IBM AMOS 26 to determine whether the factor structures

needed any modification. During this process, items with poor factor loadings (i.e.< .50) and

significant cross-loadings were dropped from further analyses (Schertzer *et al.*, 2008). The

remaining data produced satisfactory factor loadings ranging from .686 to .877. Composite

reliabilities (CRs), average variance extracted (AVEs), and correlations are provided in Table

1. All of the CRs exceeded the requisite Nunnally and Bernstein (1994) .70 cut-off and AVEs

were above the recommended .50 (Hair *et al.*, 2016). The fit statistics for the accompanying

confirmatory factor analysis were satisfactory: χ^2 (369) = 3279.825 (*p* < .01), SRMR = .027,

RMSEA = .043, CFI = .964, NFI = .960 and GFI = .947. This provides support for the notion

of adequate convergent validity. Furthermore, the AVE of each construct in our study is larger

than the squared correlations of each pair of constructs used in the model (Table 1), indicating

adequate discriminant validity (Fornell and Larcker, 1981).

- Insert Table 1 about here -

4.2 Main model testing

The main research model was tested using structural equation modelling (SEM) with maximum

likelihood estimation. Bias correct bootstrapping was also conducted to assist the mediation

test (Preacher and Kelley, 2011). The model has good fit indices (χ^2 (303) = 3502.866, SRMR = .038, RMSEA = .050, CFI = .955, NFI = .951 and GFI = .938). The model explained 54.5 per cent of the variance in behavioural loyalty (R^2 = .545) and 51 per cent in attitudinal loyalty (R^2 = .510). The outputs revealed that among factors belonging to loyalty layers, only the direct effect of personal loyalty on attitudinal loyalty was significant while only local network effect had a direct and significant effect on behavioural loyalty. Therefore, H_{1a} and H_{3b} were confirmed. Furthermore, the hypothesised relationships between customer expectations (i.e. service quality, perceived reciprocity and perceived innovativeness) and attitudinal loyalty were statistically significant, supporting H_{4a}, H_{5a} and H_{6a}. Service quality and reciprocity had a significant effect on behavioural loyalty, whereas innovativeness did not significantly affect behavioural loyalty. As such, only H_{4b} and H_{5b} were supported. Finally, both personal loyalty and relationship with the consumption community significantly influenced customer expectations, confirming H_7 and H_8. The results are summarised in Table 2.

- Insert Table 2 about here -

To test the mediated effects, the method of bootstrapping indirect effects was used. Recent research (Hayes, 2009) suggests that bootstrapping is powerful in testing intervening variable effects. The results of the mediating effects are provided in Table 3. All of the indirect effects (except for the indirect effect of personal loyalty and the relationship with the consumption community on behavioural loyalty via innovativeness) were significant.

- Insert Table 3 about here -

4.3. Moderation effects of customer knowledge

To test our moderating hypothesis, latent interactions between the moderator (i.e. customer knowledge) and the independent variables (i.e. loyalty layers including personal loyalty, relationship with the consumption community and local network effects, and customer expectations including service quality, innovativeness and reciprocity) were added to our model. Adopting Marsh, Wen, and Hau (2006)'s an unconstrained approach, we mean-centred all indicators and used matched pairs to form product indicators of an interaction term. The interaction terms were included in the structural equation model. Except for the effects of the interaction terms between the consumption community and customer knowledge on attitudinal loyalty ($\beta_{knowledge\ x\ consumption\ community}$ = .028, p > .05), between personal loyalty and customer knowledge on behavioural loyalty ($\beta_{knowledge\ x\ personal\ loyalty}$ = -.013, p > .05) and between innovativeness and customer knowledge on behavioural loyalty ($\beta_{knowledge\ x\ innovativeness}$ = -.017, p > .05), the effects of the other interaction terms on both attitudinal and behavioural loyalty were significant.

In terms of the moderating effects of customer knowledge on the relationships between loyalty layers and attitudinal loyalty, as customer knowledge increases, the effect of personal loyalty on attitudinal loyalty is weaker ($\beta_{knowledge\ x\ personal\ loyalty}$ = -.074, p < .001) and the relationship between local network effects and attitudinal loyalty is stronger ($\beta_{knowledge\ x\ local\ network\ effects}$ = .041, p < .01), confirming H9a and rejecting H9b and H9c. Regarding the moderating effects of customer knowledge on the relationships between customer expectations and attitudinal loyalty, as customers have a greater level of knowledge, the effect of service quality on attitudinal loyalty is weaker ($\beta_{knowledge\ x\ service\ quality}$ = -.044, p < .01) and the effects of reciprocity and innovativeness on attitudinal loyalty are stronger (($\beta_{knowledge\ x\ reciprocity}$ = .095, p < .001; $\beta_{knowledge\ x\ innovativeness}$ = .057, p < .001), confirming H10b and H10c and rejecting H10a.

In terms of the moderating effects of customer knowledge on the relationships between loyalty layers and behavioural loyalty, the effect of the relationship with the consumption community on behavioural loyalty increases as customer knowledge increases ($\beta_{knowledge\ x\ consumption\ community}$ = .062, p < .001), confirming H_{11b}, whereas local network effects have a stronger relationship with behavioural loyalty when customers have a lower level of knowledge ($\beta_{knowledge\ x\ local\ network\ effects}$ = -.064, p < .001), in contrast to the hypothesized moderating effect in H_{11c}. Finally, the effects of both service quality and reciprocity on behavioural loyalty become stronger as customer knowledge increases ($\beta_{knowledge\ x\ service\ quality}$ = .050, p < .001; $\beta_{knowledge\ x\ reciprocity}$ = .039, p < .001), supporting H_{12a} and H_{12c}.

5. Discussion

The findings confirm loyalty layers and customer expectations as antecedents of customer loyalty. Service quality was significantly related to both attitudinal loyalty and behavioural loyalty, mirroring previous research such as Amin (2016), and Quach, Hewege and Thaichon (2019). Similarly, reciprocity was a significant antecedent of customer loyalty. This lends support to the premise that reciprocity is one of the most fundamental ingredients in a long-term consumer-firm relationship (Fournier *et al*., 1998). The positive relationship between perceived firm innovativeness and attitudinal loyalty was supported, suggesting that innovativeness helps form favourable attitudes toward a firm, especially in a high-tech industry (Kunz, Schmitt and Meyer, 2011). On the other hand, perceived innovativeness did not have any significant effect on behavioural loyalty. This could be explained by the fact that high tech firms are often under pressure to be innovative and compete with each other on state-of-the-art technology, which might lead to little perceived difference among their customers.

As anticipated, personal loyalty had a positive, significant relationship with service quality, perceived innovativeness and reciprocity because favourable customer–staff interactions transfer to the firm-customer level (Bove and Johnson, 2002). The hypothesised effects of the relationship with consumption communities on service quality, perceived innovativeness and reciprocity were also supported, demonstrating that consumption communities can exercise an influence on customers' perception of their service providers (Goodwin, 1996). Furthermore, personal loyalty had a direct influence on customer attitudinal loyalty, while its effect on behavioural loyalty was mediated via service quality and reciprocity. Service quality and reciprocity also mediated the impact of the relationship with the consumption community on customer loyalty, proving the significance of these customer expectations. Moreover, local network effects significantly influenced behavioural loyalty, but not attitudinal loyalty. This could be explained by the fact that local network effects often create emotional lock-in and increase inertia, which could result in captive customers (Czajkowski and Sobolewski, 2016). Hence, although the local network effects can increase the repurchase intention, it does not necessarily result in the psychological preference and commitment (expressions of attitudinal loyalty).

Finally, the moderating role of customer knowledge was confirmed, supporting previous research such as Chiou, Droge and Hanvanich (2002). In general, customer knowledge weakened the relationships between personal loyalty and attitudinal loyalty and between local network effects and behavioural loyalty while strengthening the effects of innovativeness and reciprocity on attitudinal loyalty and the effects of service quality and reciprocity on behavioural loyalty. In contrast to our anticipation, the relationship between local network effects and attitudinal loyalty was stronger while the effect of service quality on attitudinal loyalty was weaker as customer knowledge increased. This can be on account of the study

context. Mobile telecommunications services in Vietnam are heavily regulated and required to comply with certain industry standards (Quach, Thaichon and Hewege, 2020). This has made service quality become more standardised and less likely to be a strong point of differentiation to develop specific attitudinal preferences among customers who know the industry well. Further, expert customers are more likely to notice the nature of mobile telecommunication services as a network industry and are more confident to recommend a service provider who is popular among their social contacts. In addition, the relationship with the consumption community had a stronger effect on behavioural loyalty as customers gained more knowledge. Customers with higher expertise are more likely to engage in consumption communities and exchange their ideas with other members (Aksoy *et al.,* 2013), resulting in the greater influence of consumption communities on their purchase decision.

6. Implications

The study extends the current body of knowledge about customer loyalty by incorporating a sociological perspective to investigate the antecedents of customer loyalty. Applying exchange theory and social orientation of loyalty (Collins, 2014), this research provides empirical evidence for the relationships among loyalty layers, customer expectations and customer loyalty as well as the moderation role of customer knowledge. The findings of this study have important implications for services marketers, especially those who are in the high-tech network industry.

As personal loyalty and the relationship with a consumption community play an important role in the development of loyalty, service providers could invest in both push strategy (using sales representatives and customer service staff to connect with the customers) and pull strategy (establishing relationships with customers through online communities) to strengthen ties with

customers. It is also a good idea to encourage intra-network usage to increase local network effects, thereby taking the advantages of the complementary co-existing loyalties. However, though typically having stronger local network effects, larger network providers are advised not to merely rely on this factor to establish a long-term relationship with customers due to its lack of impact on attitudinal loyalty. This also means that small service providers can focus on leveraging other loyalty layers and customer expectations to mitigate the disadvantage of small network size and compete with bigger players in the industry.

Furthermore, service quality and reciprocity were found to be the strongest antecedents of loyalty. Therefore, companies need to improve their service performance and communications with customers by highlighting their interest, care, and appreciation for their customers, thereby demonstrating reciprocity. It is also recommended that service providers focus on innovativeness as constant innovation and willingness to match customers' expectations can provoke positive feelings and develop customer loyalty.

Finally, since customer knowledge is a significant moderator in the relationship between loyalty and its antecedents, service providers need to develop appropriate approaches for customers with different levels of expertise. For example, a fair reward program demonstrating reciprocity is important to retain expert customers. In addition, firms can increase advocacy and WOM recommendations from expert customers by offering them in-tra network promotion packages and marketing messages showcasing firm innovativeness. At the same time, companies can facilitate and promote consumption communities and service quality to increase conversion and retention rates among customers with a greater level of knowledge. On the other hand, customers with lower levels of knowledge can be targeted using more personal selling and communications about service quality to encourage their advocacy. Novice

customers are more likely to engage in the habitual purchase and can be locked-in by effective referral programs which in turn can further expand local network effects.

7. Conclusion, limitations and future research directions

This study has investigated possible antecedents of loyalty through the lens of exchange theory and social orientation of loyalty. Supporting previous research, the findings confirm the relationship between customer loyalty and service quality (Rizomyliotis et al., 2020) and reciprocity (Quach, Hewege and Thaichon, 2019). Moreover, it was found that innovativeness had a significant effect on attitudinal loyalty, supporting Eisingerich and Rubera (2010). However, in contrast to the findings of Malhotra and Malhotra (2013) in the mobile telecommunications industry in the USA, the effect of innovativeness on behavioural loyalty among Vietnamese subscribers was not significant. This suggests that culture and country-specific characteristics could be an influential force in relation to customer attitudes and behaviour. Furthermore, although the impact of local network effects on behaviour loyalty is established in extant literature (Czajkowski and Sobolewski, 2016), the effects of other loyalty layers have not been sufficiently investigated in the context of the telecommunications. Addressing this gap, the current study provides evidence of the impact of personal loyalty and relationship with consumption communities on customer loyalty. Finally, despite the importance of customer knowledge in a high-tech industry (Ding and Chai, 2012), limited research has been done to investigate its role in the development of loyalty in telecommunications services. The current study reveals that the effects of loyalty layers and expectations on loyalty towards a service provider vary among customers with different levels of knowledge.

This paper has several limitations. The context of this study is telecommunications services in

Vietnam, which might be different from other countries and industry settings. In the interest of generalisation, future research should be conducted to test this model in other contexts. Moreover, as the research used self-reported purchase intention as an expression of loyalty, it might not be as accurate as actual purchases. Further research could develop the measure of loyalty in action by including real sales data. Future research can also consider other affective and cognitive evaluation constructs such as trust, satisfaction, commitment, and value in relation to customer loyalty. Finally, as loyalty is developed over time, it is worthwhile to conduct a longitudinal study to holistically depict the changing patterns of customers' attitudinal and behavioural loyalty.

8. Reference

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