Factors Leading to Customer Retention in the High Volume-Low Volume Service Context: Evidence from the Mobile Service Industry

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Abstract

Service convenience has undoubtedly gain substantial recognition for both goods and service industries within recent years towards forging an enduring competitive advantage. Considering heightened market expectations in the mobile service industry, importance of capitalizing on relevant elements is highlighted to retain, further strengthen users' loyalty. Technological advancement has then created opportunity for differentiation in the area of reachability, particularly on the transaction convenience and access convenience of specified mobile service. Alongside product involvement, brand image and perceived value as hypothesized predictors of users' allegiance towards a mobile service, this study explored factors which influence customers' loyalty and propensity to leave within the mobile service industry. Convenience sampling approach was hereby implemented, following distribution of close-ended questionnaires among 400 respondents. Data analysis was then conducted through employment of the SEM AMOS software. As such, results obtained discovered product involvement, perceived value, transaction convenience and access convenience being direct predictors of both dependent variables; with the exception of brand image which doesn't affect propensity to leave, despite being a significant antecedent to customers' loyalty. Additionally, transaction convenience was revealed as an active moderator to the impact of perceived value on (i) customer loyalty, and (ii) propensity to leave. Centred on the transactional aspect in the mobile service industry, more effective service marketing strategies can be developed through gained insights from this research, with excelling sustainable customer retentions.

Introduction

In today's world, technology has evolved so much that it affects the way we perform our daily tasks. From shopping experiences, communication, information search, to commercial activities like making bill payments, tasks can be performed with a simple swipe, thanks to such technological advancement. Among others, mobile devices have gained significant popularity among consumers. In 2016 alone, the Industry Performance Report by MCMC (Malaysian Communications and Multimedia Commission) has recorded Malaysians to stand at a total of 141 devices per 100 inhabitants. This indicates that roughly 40% of the population carried more than 1 mobile devices individually (MCMC, 2016). Further tabulated through data collected by the MCMC, 51.5% of the Malaysian population ranked mobile phone as an "important" necessity, followed by 44.8% of them who deemed the device "moderately important"; which, denotes the remaining minority (%) sees it being rather "not important". Further analysis has, then, found switching trend among 10% of mobile service users to a different service provider, following their first-year engagement within the respective providers.

In conjunction to the evolution of mobile devices, advancement has also been noticeable in payment systems of mobile services, where acclamation and acceptance are gained over time. Mobile payment can be described as any transaction on a mobile handset, where ownership of money changes hands (Pope, Pantages, Enachescu, Dinshaw, Joshlin, Stone, Austria, & Seal, 2011). It began as a substitute transaction for customers to complete their payments, as to derive a solution in combating congestions within offline channels such as retail stores and banks. With its increased popularity, functions of mobile payment have extended to other forms of payment activities including online purchase, fund transfer, bill payment, as well as charity donation.

Such market opportunities have led to increase in mobile service providers, mobile device manufacturers, and mobile application developers to continuously offer compatible mobile service packages and innovative mobile devices. Particularly, market shares among the Malaysian mobile service providers demonstrate somewhat minimal variations. As observed, Digi Communication is leading the market with 37% in market share, followed by Maxis at 34% and Celcom at 29% (The Edge, 2019). Despite this oligopoly environment, companies have experienced circumstance of business instability in areas of profitability, sales revenue, employee retention, customer retention and cash flow (Connelly, Lee, Tihanyi, Certo, & Johnson, 2019). Likewise, customer recruitment and retention have become more complicated and costly. Ever since the early 2000s, emphasis was shifted towards developing and increasing customer loyalty within the industry, in view of ensuring continuous growth as part of a company's competitive advantage (So, King, Sparks, & Wang, 2016). The intensity has grown tremendously coming to today's marketplace settings.

Excellent product and service offerings become a fundamental element towards customer retention; where, failure to meet such expectations often results in customers abandoning their current service provider in favour of another. Consumers are most likely to hold service providers accountable for service failures or dissatisfactions. To minimize such occurrences, service providers strive in innovating their services for enhancing the overall customer experience. An example being payment channels, where interruption of online bill payment due to unstable Internet connection can lead to frustration or dissatisfaction. Relating this to the notion of accountability, there are differing opinions as to which party (the customer or service provider) should be held responsible (Kumar, Sachan, & Mukherjee, 2017). Yet, this debate from a competitive sustainability perspective further highlights notion of customer centrism, which would suggest accountability to fall towards the side of the service providers. Neglecting users' feedback in this regard can possibly generate an advantage to existing competitors, allowing them to deliver better transactional value. With this, learned prospect should not solely revolve on accountability, but extend upon strategies to deliver greater value for sustaining market competitiveness.

In retrospect, conventional methods would require customers to spend substantial amount of cost, time and energy to perform and complete subscription payments. This being accounted, transaction convenience is seen as a potential key that could help reduce redundancy and promote customer retention (Lemon & Verhoef, 2016). As mobile devices evolve, payment methods should evolve in tandem such that mobile payments are introduced and taught to consumers. User-friendly mobile payment methods would be a competitive advantage for telco providers, allowing them to improve customer loyalty by highlighting customer centrism. With the construct of service convenience proposed by Berry, Seiders and Grewal (2002) as a basis, ease of payment and reachability are hereby highlighted upon the fore-discussed context; which, placed accountability on transaction convenience and access convenience.

Noted that multiple studies within similar context has focused on the influence of brand image (Ahmad & Zafar, 2019), product involvement (Rokonuzzaman, Harun, Al-Emran, & Prybutok, 2020) and perceived value (Peña, Jamilena, & Molina, 2016) on loyalty and tendency of switching allegiance; yet, not without the mediating effect of satisfaction. Considering mobile service being somewhat transformative technology in a continuous pace, moderators as being proposed by previous researchers have placed primary emphasis on sociodemographic variables including gender, age, qualification, experience, occupation, income level, marital status and lifestyle towards circumstance of service adoption over brand retention (Chawla & Josh, 2018; Sabine, Klose, & Ettinger, 2017; Lee, Lee, & Rha, 2019). While various studies have placed service convenience in the predicting role towards influencing satisfaction, further behavioural intentions (Bi & Kim, 2020; Chen, Chang, Chen, & Chen, 2019); the mobile service industry has remained fairly concealed where service convenience is placed in the moderating role, as being sidestepped by other researchers exploring the discussed construct (Ali, Mohd Noor, & Mahmood, 2016; Kuo, Chang, Chen, & Hsu, 2012).

Current scope being placed on investigating importance of transactional accessibility to the mobile service front in Malaysia; this study, thus, aimed to identify the impact of product involvement, brand image, perceived value, access convenience and transaction convenience on level of customer loyalty together with their propensity to leave the providers of mobile service. Herewith, emphasis is extended on evaluating the moderating effects of access convenience and transaction convenience in the relationships between (a) customer loyalty and perceived value, as well as (b) customers' propensity to leave and perceived value in the Malaysian mobile service industry.

Research Questions

Based on the previously established research gap, the current study was conducted in answering the following research questions:

1. Which of the investigated factors (product involvement, brand image, perceived value, access convenience and transaction convenience) would have a significant impact on customers' loyalty and propensity to leave a mobile service provider?

2. How would transaction convenience moderate the impact of perceived value on customers' loyalty and propensity to leave a mobile service provider?

3. How would access convenience moderate the impact of perceived value on customers' loyalty and propensity to leave a mobile service provider?

Literature Review

Expectancy Disconfirmation Theory

Acknowledging the nature of this study, Expectancy Disconfirmation Theory (EDT), as introduced by Oliver (1977, 1980), provides significant explanation on the phenomenon that matches expectations to outcomes. Let consumers' perceptions being static, Dissonance Theory highlights resolution of psychological discomfort through re-evaluation of offerings to meet prior expectations (Yi, 1990); yet, Contrast Theory opposed with stating intensification of disparity between expected and actual outcomes shall such existed (Cardozzo, 1965). Accounted for flaws both theories, EDT managed to provide more rigorous view on the fore-mentioned circumstance, which accounted for negative disconfirmation when outcomes fall short of expected services, vice versa (Yüksel & Yüksel, 2008). It comes without saying, the paradigm has been substantially applied within the service sector, towards determining elements that entail satisfaction (Kim & Choi, 2019; Zhu, Freeman, & Cavusgil, 2018). Such was similarly expanded towards the field of mobile services in gauging satisfaction-related factors (Quoquab, Mohammad, Md Yasin, & Abdullah, 2018; Hsu, Lin, Chen, & Suraphatchara, 2019).

Transcending satisfaction, the proposed theory was adopted in investigating elements influencing persisted intention (Oghuma, Libaque-Saenz, Wong, & Chang, 2016; Ting, Fam, Cheah, Richard, & Xing, 2019). In many cases, a sequential relationship is revealed with satisfaction being the antecedent to customer loyalty; while both being directly influenced by the studied independent variables (Mat, Wan, & Adeyemi, 2018; Wong & Chang, 2014). With prior belief on existing technology through previous experience, Fan and Suh (2014) further proposed versatility in switched avocation among users shall performance of disruptive development that comes later falls short of their pre-constructed expectation. Understood that such paradigm has been widely applicable in exploring antecedents for endorsements within consumer goods (Chadwick & Piartrini, 2019; Chen-Yu, Kim, & Lin, 2017); such has also been apparent towards explaining the customer satisfaction model within personalized occasions (Choi, Moon, & Kim, 2019); thus, deemed compatible in underlining consumers' ongoing loyalty as per high volume-low-volume products.

In another case, EDT has been adopted in studying smartphone consumer behaviour alongside the Theory of Planned Behaviour (TPB); which, connecting stimulus to customers' responses (Chai, 2019). TPB is known for being the theoretical foundation which effectively describe the tendency of consumers' actual undertakings regarding their formed attitude, societal perceptions and individual's behavioural control (Ajzen, 1991). Surpassing mere consumers' perspectives, behavioural control can be generated at side of the service providers; where, users hold substantial belief that particular provider is reliable in delivering service that meets their underlying expectations (Tan, 2016). With proposition where EDT holds limited capability to illustrate experience-intensive services due to the lack of sufficient prior experience in forming an accurate expectation (Halstead, Hartman, & Schmidt, 1994; Hill, 1985; Jayanti & Jackson, 1991), integration of TPB would entail otherwise, with beliefs take on as a foundation towards constructing expected outcomes. Nevertheless, this research has placed more emphasis on effectiveness to retain market share over acquiring new ones. First encounter aside, the current study hereby adapted EDT in exploring variables of service retention, with recognizing existence of readied beliefs through prior exposure.

Figure 1: Theoretical Framework
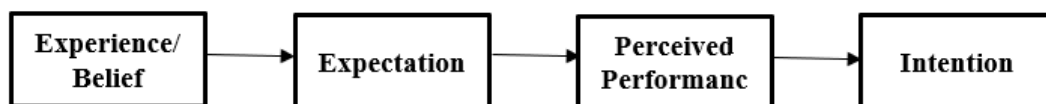
Customer Loyalty

Fundamentally, customer loyalty refers to the "willingness of someone—a customer, an employee, a friend—to make an investment or personal sacrifice in order to strengthen a relationship" (Reichheld, 2003). As according to Oliver (1999), a customer's level of loyalty from a business perspective describes a customer's continuous belief towards a product/service/company in fulfilling their value proposition, further influences repurchases. Specifically, Zeithaml, Berry and

Parasuraman (1996) divided loyalty into four stages: (i) cognitive; (ii) affective; (iii) conative; and (iv) action loyalties. Loyalty is hereby highlighted as a complex, multi-dimensional behaviour influenced by sociodemographic (e.g. income, emotion, age), as well as other internal and external environmental factors. Whereas, Dick and Basu (1994) countered with the concept of "no loyalty", particularly in extremely brand competitive environments where customers frequently switch brands in fulfilment of individual requirements.

Loyalty as proposed in temporal stages by Oliver (1999), cognitive loyalty is primarily achieved, where loyalty is formed through new encounters with a brand where judgment is solely founded upon performance over emotional attachment. Manifestation via continuous positive brand delivery would then lead to subsequent stage of affective loyalty, which accounts for emotional attachment formed through pleasant brand experience, while carrying degree of switching tendency. Shall this persisted, conative loyalty would be formed, which represents commitment where cognitive and affective loyalty support consumers' thinking process. In turn, it results intentions to make repeat purchases, even when actual purchases aren't guaranteed. Thus, emphasis is simultaneously placed on action loyalty being the final stage, when repeat purchases are realized through decisions supported by cognitive, affective, and conative elements. Noted by Oliver (1999), in-depth commitment is achieved in this stage, with contributions provided by customers in form of financial profitability.

With intense competitions over larger market shares, customer retention is undeniably crucial in lowering marketing and operational costs of attracting new customers; which, translates higher profitability (Cham, Ng, Lim, & Cheng, 2018; Cheah, Ting, Cham, & Memon, 2019; Cheng, Mansori, & Cham, 2014; Chevalier, Dover, & Mayzlin, 2018). Noted that satisfaction, value and switching cost have prevailed as significant predictors to loyalty towards specific mobile service (Quoquab, Abdullah, & Jihad, 2016). Continuous subscription can also be potentially motivated by contractual obligation, limited market choices, and psychological fear of monetary cost implications, besides satisfaction (Biscaia, Rosa, Moura e Sa, & Sarrico, 2017). Indisputably, periodical understanding of customer loyalty is crucial following changing perceptions of product involvement, brand image, perceived value, transaction convenience and access convenience for being predictors of customer loyalty towards mobile service providers, further industrial sustainability and growth (Capistrano, 2013; Dunuwille & Pathmini, 2016; Ling, Yang, & Jun, 2013). As such, this study investigated customer loyalty in terms of making desirable recommendations, motivation of positive word-of-mouth, as well as repurchase intention. Herewith, the impact of product involvement, brand image, perceived value, transaction convenience and access convenience on loyalty was investigated.

Propensity to Leave

In general, propensity to leave refers to the perceived likelihood that a partner will terminate the relationship in the reasonably near future (Morgan & Hunt, 1994; Bluedorn, 1982). A study by Keaveney (1995) covering 45 types of services further

acknowledged several factors contributing a customer's propensity to leave, which identified failures of core services including mistakes, billing errors and service catastrophes (44% of respondents) being the biggest contributor on switching propensity to other brands. Additionally, service failures have been identified as the second most significant contributor to customer's propensity to leave. Being acknowledged as unpleasant interactions between customers and the service providers, service encountered failures include employees' impoliteness, unresponsiveness and incompetence when serving customers.

As such, propensity to leave would be significantly influenced by pricing and service convenience (Pansari & Kumar, 2017). Yet, Eshghi, Haughton and Topi (2007) contrasted with suggesting switching cost as the primary contributing factor within the wireless telephone market in the United States. In this case, a large number of customers refused to switch homage due to concern on a lost in acquaintances' contact information, regardless of satisfaction level. Switching cost is, thus, involved considerations for loss of social bonds, setup costs, functional risks, attractiveness of alternatives, and loss of special treatment benefits. Alternatively, Pirc (2006), in highlighting relationship significance between competitive offerings, propensity to leave, and customer loyalty, defined propensity to leave as "the expressed likelihood by the customer of positively reacting to competitors' offers." With covering mobile phones as part of a consumption system that influence loyalty and switching intentions, Pirc (2006) has proposed mobile service usage to exert a curvilinear effect on propensity to leave. Attention is hereby brought to the importance of displaying service price in addressing customers from a pricing perspective over that of mobile phone price; and, the limited influence of subscripted duration towards retaining existing customers. Nevertheless, re-acquiring left customers would be a task of heightened difficulties.

Increased prevalence of telecommunication usage has enabled convenience among customers to switch between competing brands shall expectations are not fulfilled. Herewith, accounted factors would include crossover features, cost involved, and possibility of losing contact information during the switching process (Oyeniyi & Abiodun, 2010); call rates and network coverage (Sathish, Kumar, & Jeevanantham, 2011); as well as customer service, quality of service, and usage costs (Karani & Fraccastoro, 2010; Lien, Cao, & Zhou, 2017). Particularly, the current study evaluates influence of product involvement, brand image, perceived value, transaction convenience and access convenience on propensity to leave and customer loyalty in the Malaysian mobile service industry.

Brand Image

Brand image is related to the evaluation and perception of a brand's identity, reputation and other brand-related aspects. Its formation is based upon customers' experience and interactions upon a particular brand over time; in turn, provides guidance towards their decision-making process (Veloutsou, Daskou, & Daskou, 2004; Nguyen & Leblanc, 2001). Such is more apparent during a product's trial stage,

as a reputable brand would imply lesser risk in making a purchase among customers (Cham, Lim, & Aik, 2015; Cham, Lim, Aik, & Tay, 2016). Further highlighted by Nguyen and Leblanc (2001), a brand's image is a set of associations collected over time in minds of consumers, which creates attitudes and beliefs that yield positive consumer-brand connections. Noted by Aaker (1991), consumers prefer famously branded products due to comfort generated from reliability. Confirmed by Drezner (2002), shared attitude and self-image, or the desire to achieve self-image as offered by the brand can potentially drive consumptions.

However, awareness and knowledge would be the foothold prior development of image or association (Wijaya, 2011). Awareness in acknowledging existence of a brand is primarily aimed when a brand is initially launched. Consistent delivery of brand attributes would then produce consumer understanding beyond recognition, by developing brand knowledge. Perceptions and associations follow through continuous and intensive communication, as well as specific experiences towards understanding products' abstract concepts; which, entails image. As such, several components that form brand image include personal elements that constitute stimuli deliberately created by the brand's owner, and environmental elements that cover technical product attributes as controlled by the organization (Walters, 1974). Yet, a brand's image isn't constant, where repositioning can be done by changing the brand's attributes, dependent over the evolving consumer landscape on demographical tastes and preferences (Dunuwille & Pathmini, 2016).

Study by Ofori, Boakye and Narteh (2018) on mobile phone services has indicated brand image as antecedent to preference and brand loyalty. In fact, positive experiences on reliability, service quality, and overall performance are some factors building favorable brand image among mobile phone consumers (Dunuwille & Pathmini, 2016). Such positive perceptions would further affect expectations and brand loyalty, which influence brand-related decisions (Jumiati & Norazah, 2015). Acknowledged that negative experiences hinder future repurchases within today's demanding consumers, mobile service providers remain very keen to compete within this market (The Sun Daily, 2019). This study, therefore, examines influence of brand image on customer loyalty and the propensity to leave their mobile service providers, with the first and second hypotheses postulated:

H1   Brand image has a positive influence on customer loyalty.

H2   Brand image has a negative influence on customer's propensity to leave.

Product Involvement

According to Blackwell, Miniard and Engel (2001), product involvement is defined as the "ongoing commitment of a customer's interest in purchasing a certain product or service". It highlights the extent to which decision is made based on individual goal, basic values, and self-concept. Mittal and Lee (1989) further suggested involvement as a state of mental motivation in which a person carries when performing certain

tasks. Simply, it highlights the level of interest a consumer has towards a product (Mittal & Lee, 1989). With Sun, Cheng, and Cui (2016) stating the influence of cognitive and affective involvements towards consumption-based behavioural intentions; the variable accounts for factors such as feelings, thoughts, and even behaviours.

Following simultaneous evolutions within the mobile industry, degree of involvement experiences consequential changes. In particular, significance of mobile services lies within connectivity that enabled executions of daily errands (MCMC, 2016). While product involvement potentially stimulates interest, such involvement does not guarantee a purchase (Harrigan, Evers, Miles, & Daly, 2018). Yet, its impact in navigating change adoption as implemented by specific suppliers among customers should not be neglected, through increased product and price transparency (Nguyen & Nguyen, 2019). Societal norms accounted, heightened product involvement, through increased product-related knowledge, would lower the influence of societal perceptions on consumption intentions (Chao & Chen, 2016). This being said, increased customer involvement would entail more product-related discovery, inclusive of possible weaknesses that may outweigh its strengths.

In one hand, information-based involvement has overshadowed brand image through having inversed influence on the relationship between perceived value and satisfaction towards particular mobile service (Calvo-Porral & Nieto-Mengotti, 2019). In another, product involvement has shown to predict customers' loyalty in the field of mobile applications, through evaluating individual's relevance and information-seeking orientation (Sarkas & Sarkas, 2019). Product involvement is being currently referred to the intensity of consumer attitudes and behaviours applied towards learning about a particular mobile service provider (Capistrano, 2013). The influence of product involvement on customer's propensity to leave, as well as their level of loyalty in the Malaysian mobile service industry are hereby evaluated, with the third and fourth hypotheses formulated:

H3   Product involvement has a positive influence on customer loyalty.

H4   Product involvement has a negative influence on customer's propensity to leave.

Perceived Value

Perceived value consisted subjective view of the value receive over what is give (Sweeney & Soutar, 2001). It covers several dimensions including social, emotional, monetary value and quality (Sweeney & Soutar, 2001). Expanded upon, this concept was mainly specified into product needs, low price, price paid against product's quality, and offering received for the price paid (Zeithaml, 1988). Understandably, value perception should be customer-oriented towards meeting needs and preferences; with perceived value being described as consumers' overall evaluation of product or

service utility upon the value-exchange perceptions (Zeithaml, 1988). As such, a balance between total values offered against total cost paid is being emphasized.

An increase in perceived value, which enriches relationships, can also increase the level of attitudinal loyalty. Being a multi-dimensional construct, Sanchez, Callarisa, Rodriguez and Moliner (2006) have suggested perceived value as a combination of social, emotional, and functional dimensions; whereas, Yang, Song, Chen, and Xia (2017) argued that it merely constitutes emotional and cognitive elements. In the context of mobile services, value is derived from differentiated service plans, additional features, data subscriptions, and family packages (Tung, 2013). Breaking down, Andriyani, Wibowo, Novalita, Rahayu, Kusumojanto, Sulistyowati, and Sudarwanto (2017) further proposed aspects of quality, cognation, monetary, behavioural, and market position, which constituted perceived value as single variable, to play substantial role towards customer retention; with monetary value being the least influential aspect. Perceived value, with benefits through practicality, pleasure and societal perception, is, thus, determined to precede intentions for product acquisition (Yang, Yu, Zo, & Choi, 2016). More so, perceived value towards a particular service holds tendency in developing satisfaction, further commitments to the service provider (Karjaluoto, Shaikh, Saarijärvi, Saraniemi, 2019). Such has been associated to the generation of trust, with the discussed factor being a direct antecedent alongside quality and price (Berraies, Yahia, & Hannachi, 2017). Consecutively, it entails customer loyalty and retention (Bauer, Falk, & Hammerschmidt, 2006; Leppaniemi, Karjaluoto, & Saarijarvi, 2017; Eggert & Ulaga, 2002; Sirdeshmukh, Singh, & Sabol, 2002).

In totality, perceived value denotes the "worth" that services possess in the minds of customers, which impacts their purchasing behaviours. Multiple studies have been recently discussed on the relationship between value, product commitment, and brand loyalty (Lee, Hsu, & Fu, 2014; Zhang, Zhou, Su, & Zhou, 2013). As such, value created within a service, alongside perceived quality, ownership period and developed loyalty, would directly affect customers' retentions (Chattha, Naqi, & Haroon, 2016; Darley & Luethge, 2019). This study extends its investigations with the influences of perceived value on customer loyalty and the propensity to leave a mobile service provider. The fifth and sixth hypotheses are, thus, postulated:

H5   Perceived value has a positive influence on customer loyalty.

H6   Perceived value has a negative influence on customer's propensity to leave.

Access Convenience

Being a dimension of service quality as proposed by Berry et al. (2002), access convenience involves consumer perceptions of time and effort required to initiate and consume a service. Such accounts for efforts needed for a service request, further participation efforts in operating the service. Herewith, elements such as service locations, operating hours, parking availability, and contact points are being

represented as the access convenience offered by a service provider. Additionally, Seiders, Berry and Gresham (2000) proposed inclusion of service delivery capacity and the option of making appointments as factors separating space and time.

Typically, access convenience would play a more significant role for inseparable services, like taxi services and product repair (Pham, 2011). Often, these cases would captivate the indivisible nature, whereby consumer's absence would render the service inaccessible. Self-service technologies, thus, come into play, solving the inseparability problem by allowing service consumptions without having reliance on the service provider; which, promotes greater accessibility and access convenience. Circumstances like that of mobile billing and banking would then enable boundless accessibility in terms of locations and schedules, while promoting heightened flexibility (Ling et al., 2013). Beauchamp and Ponder (2010), Lim and Cham (2015) then suggested importance of access convenience in the context of online purchases, with user-friendliness and exploration proficiency of product navigations beyond limitations of physical locations (Ling et al., 2013). User-friendliness and exploratory proficiency in terms of diminished time and efforts would then yield customers' repeat patronage towards online platforms (Mahapatra, 2017). Questioning effectiveness of contact mediums and platforms in affecting customers' returned behaviours, this study identifies significance of access convenience towards loyalty and the propensity to leave with the seventh and eighth hypotheses being postulated:

H7   Access convenience has a positive influence on customer loyalty.

H8   Access convenience has a negative influence on customer's propensity to leave.

Remarked, accessibility has proven to be a significant predictor towards customers' perceptions upon online services (Durup, Surujlal, & Redda, 2014). In congruence to robust branding, locational accessibility would be benefitted towards strengthening loyalty among customers (Lim, Cham, & Sia, 2018; Swoboda, Berg, Schramm-Klein, & Foscht, 2013). Seeing that ease of accessing online transaction sites is being considered to yield greater retention on e-banking, loyalty can be forged through cultivating routine usage of such service among existing followers (Al-Hawary & Hussein, 2017; Kajenthiran, Rajumesh, & Umanakenan, 2018; Konalingam, Ratnam, Sivapalan, & Naveen, 2017). Convenience has often been a stepping stone that motivates customers towards positive evaluations of self-servicing technologies, in terms of accuracy, speed, further prospective intentions (Collier & Kimes, 2012). Whereas, convenience, alongside perceived practicality and ease of use have shown significance towards positive consumers' attitude on technology adoption; which, entails continual consumption intention (Chang, Yan, & Tseng, 2012). This, however, is rebutted by Konalingam et al. (2017) in influencing customer loyalty, despite accessibility remains a significant predictor. Further unveiled by Umashankar, Bhagwat and Kumar (2017), growing behavioural loyalty would denote increased customers' value-based evaluations on experienced services, with lowered emphasis on benefits and convenience. While Berry et al. (2002) placed a blurred line in

explaining access convenience as a combined variable, the previous statement revealed potential moderating influence of such variable on the relationship between perceived value and functional-oriented retention. The ninth and tenth hypotheses are hereby established:

H9 Access convenience moderates the influence of perceived value on customer loyalty.

H10 Access convenience moderates the influence of perceived value on customer's propensity to leave.

Transaction Convenience

Transaction convenience, being a branch to service convenience, focuses on the convenience afforded by customers when completing their payment transactions (Lemon & Verhoef, 2016). It focuses on the actions that consumers must take to secure the right to use a service. With this, a poorly designed transaction infrastructure would undeniably result in long waiting time for customers (Larson, 1987). Even in the online settings, two-thirds of Internet shoppers would abandon their cart during the checkout page in cases of slow sites (Cimino, 2000). Deemed the most undesirable stage across the consumption journey, loss of sales can occur. Expanded upon, transaction convenience consisted of simple and convenient online payment, flexible payment methods, and the absence of difficulty in completing a purchase; which, shall neglected would cause abandonment of purchasing process (Ling et al., 2013; Jih, 2007; Kaura, Prasad, & Sharma, 2015). Technical difficulties and lack of payment alternatives during online purchases would then entail customer's tendency to desert the transaction (Rajamma, Paswan, & Hossain, 2009).

Nevertheless, disparity between online and offline settings is apparent, where offline transaction convenience emphasizes minimal interval towards purchase completion; whereas, online transaction convenience constitutes simple and flexible payment methods (Ling et al., 2013). Knowing that the mobile service industry provides both online and offline payment platforms, changing elements utilized to support payment methods remained investigatory in affecting customers' allegiance. The eleventh and twelfth hypotheses are, thus, formulated:

H11 Transaction convenience has a positive influence on customer loyalty.

H12 Transaction convenience has a negative influence on customer's propensity to leave.

Extended upon, convenience in the transactional process has demonstrated significance towards moderating customers' tendency to repurchase, overshadowing that of service experience and perceived value (Gupta & Kim, 2007). More so in the digital-interconnectivity front, customers have ranked transaction convenience above transaction security in transforming intentions to actual consumption behaviours

within online platforms (Indiani & Fahik, 2020). Attention is brought to the aspect of user-friendliness as an accounted factor that influence adoption of transaction-related technology; while favourable experience would entail propensity of future usage (Liébana-Cabanillas, Sánchez-Fernández, & Muñoz-Leiva, 2014). While transaction experience might not exert sufficient influence towards altering element of satisfaction, such has shown to be significant in constructing trust within the digital environment (Jin & Park, 2006). In another case, contradicted findings have been obtained within similar context when it comes to connecting customers' satisfaction to loyalty (Ali, Noor, & Mahmood, 2016). Nonetheless, convenience is viewed an essential benefit for mobile payments; in turn, being the predictor to consumption intentions (Gao & Waechter, 2017). Noted that offered ease of transaction within the online settings can reduce customers' tendency to seek, further pursue better alternatives (Anderson & Srinivasan, 2003); the potential moderating role of transaction convenience should not be overlooked. The thirteenth and fourteenth hypotheses are hereby postulated:
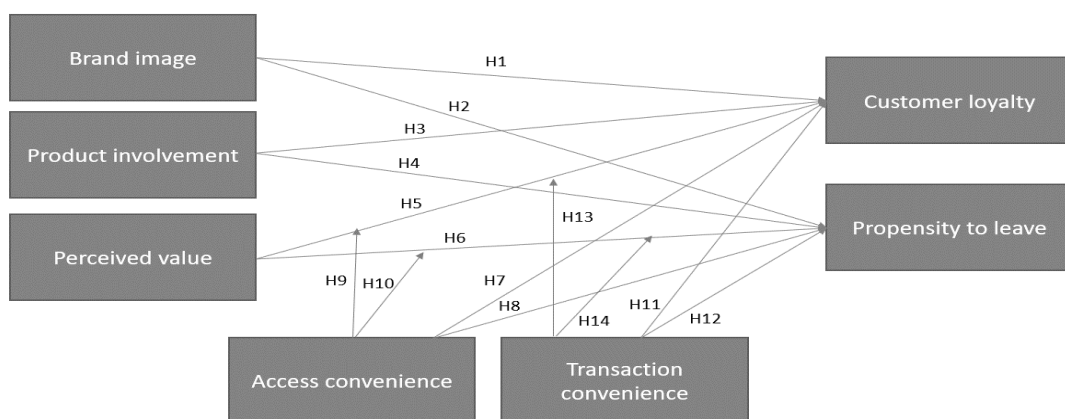
H13 Transaction convenience moderates the influence of perceived value on customer loyalty.

H14 Transaction convenience moderates the influence of perceived value on customer's propensity to leave.

Conceptual Framework

Based on the literature review, a conceptual framework has been constructed, as shown in Figure 2 below.

Figure 2: Conceptual Framework

Research Methodology

This study was empirical in nature and employed quantitative methods of analysis. Seven variables had been employed to test the hypothesized relationships in the conceptual framework. These variables are product involvement, brand image, perceived value, access convenience, transaction convenience, customer loyalty and propensity to leave. A survey in the form of a questionnaire was used for data collection. The items and scales in the questionnaire were adopted from related literature relating to ensure enhanced validity (Lemon & Verhoef, 2016; Nguyen & Leblanc, 2001; Sirdeshmukh et al., 2002; Harris & Goode, 2004; Morgan & Hunt; 1994). A pilot test with 100 participants was conducted to further confirm the questionnaire's reliability. All the items in the questionnaire achieved reliability score (Cronbach Alpha) more the 0.70 and all the questions are well understood by the respondents. This action was deemed necessary in making previously overlooked corrections and improvements, further avoid ambiguous questions and biased responses amid actual data collection (Memon, Ting, Ramayah, Chuah, & Cheah, 2017). The initial questionnaire was, thus, revised upon received feedback and reviews.

In conjunction to the ideal of Industry 4.0, mass customization is embraced within the mobile service industry towards fulfilling users' individual demand (Wan, Yi, Li, Zhang, Wang, & Zhou, 2016). Such was, thus, deemed compatible as per research context of the current study in representing high-volume low-volume product, as it accounts for users' operational patterns (Marquez, Gramaglia, Fiore, Banchs, Ziemlicki, & Smoreda, 2017); further forges differentiations and decision-making upon customers' requests (Kang, Park, Lee, & Rho, 2017; Mourtzis, Doukas, & Vandera, 2016); despite retaining fair service generalization. Herewith, convenience sampling was used with questionnaires distributed across 400 customers of respective mobile service providers in Malaysia, which yielded 392 were usable responses. Statistical tools in the SEM-AMOS package were then used to analyse items' reliability and hypothesized relationships as per the research model.

Key Findings

Demographic Characteristics of Respondents

As seen in Table 1, there is a rather balanced distribution of respondents in terms of gender (46.4% male and 53.6 female). Most of the respondents are aged between 20 and 39 (54.3%), followed by those aged 40 to 59 (39%). In terms of monthly income, the majority are in the RM2,000 to RM4,999 range (66.1%). As for educational background, almost half of the respondents have a bachelor's degree or equivalent (45.2%).

Table 1: Respondents' demographic profile

Variable	Classification	Frequency	Percentage (%)
Gender	Male	182	46.4
	Female	210	53.6
Age	Below 19 years old	16	4.1
	20-39 years old	213	54.3
	40-59 years old	153	39.0
	Above 60 years old	10	2.6
Ethnicity	Malay	115	29.3
	Chinese	260	66.3
	Indian	17	4.3
Monthly Income	Less than RM1,999	1	0.3
	RM2,000-RM4,999	259	66.1
	RM5,000-RM9,999	117	29.8
	Above RM10,000	15	3.8
Education	Primary school or below	35	8.9
	Secondary school	65	16.6
	Certificate or Diploma	89	22.7
	Bachelor's Degree	177	45.2
	Master's Degree	6	1.5
	Doctoral Degree	17	4.3
	Professional Qualifications	3	0.8
Employment	Employed for Wages	206	52.6
	Self-employed	154	39.3
	Professional	27	6.9
	Student	5	1.3

Confirmatory Factor Analysis

Confirmatory factor analysis was used in the current study to examine both the discriminant and convergent validity of the selected constructs. A model can be considered fit if the normed chi-square value (χ^2/df) is less than 3, root mean square error of approximation (RMSEA) is less than 0.08, goodness of fit (GFI) exceeds -0.90, Tucker-Lewis index (TLI) exceeds 0.90, comparative fit index exceeds 0.90, adjusted goodness of fit index exceed 0.90, and parsimony normed fit index (PNFI) exceeds 0.50 (Hair, Black, Babin, Anderson, & Tatham, 2010). The measurement model for this study was of good fit; the results of the confirmatory factor analysis yielded the following values for the constructs named above: χ^2/df = 329, RMSEA = 0.033, GFI = 0.923, TLI = 0.972, CFI= 0.975, AGFI = 0.905, and PNFI = 0.801.

Table 2: Convergent Validity Results

	Items	Factor loading	Average Variance Extracted (AVE)	Composite Reliability
Customer loyalty	4	0.739-0.791	0.503	0.802
Access convenience	3	0.678-0.926	0.707	0.877
Transaction convenience	3	0.611-0.818	0.538	0.775
Brand Image	3	0.828-0.857	0.588	0.810
Perceived value	3	0.768-0.854	0.705	0.878
Propensity to leave	3	0.645-0.799	0.550	0.785
Product involvement	4	0.667-0.867	0.623	0.936

Convergent validity was then assessed based on suggestions by Hair et al. (2010), in fulfilment of three main criteria, namely (1) the standardized factor loading values for all items should have a loading estimate of at least 0.60, (2) the average variance extracted (AVE) for all the constructs should be greater than 0.70, and (3) the composite reliability value should exceed 0.70. As shown in Table 2, the standardized factor loading values for all measurement items are above 0.60, AVEs for all constructs exceed 0.50, and composite reliability exceeds 0.70. This has, thus, established the convergent validity of this study.

On discriminant validity, assessment was based on suggestions by Fornell and Larcker (1981), where convergent validity is achieved if the square AVE for each construct is greater than the shared variance between the constructs. Results in Table 3 further show that the current constructs have achieved discriminant validity as the values of the correlation between constructs are less than that of the squared AVEs. The following section then discusses results for the path analysis.

Table 3: The Results of Discriminant Validity

	1	**2**	**3**	**4**	**5**	**6**	**7**
Customer loyalty	**0.710**						
Access convenience	*0.156*	**0.841**					
Transaction convenience	*0.275*	*0.115*	**0.734**				
Brand Image	*0.244*	*-0.008*	*0.318*	**0.767**			
Perceived value	*0.208*	*-0.042*	*0.144*	*0.184*	**0.840**		
Propensity to leave	*-0.259*	*-0.222*	*-0.186*	*-0.004*	*-0.136*	**0.742**	
Product involvement	*0.157*	*0.114*	*0.093*	*0.068*	*0.028*	*-0.297*	**0.789**

Notes: 1. The off-diagonal entries (in italics) represent the variance shared between constructs. 2. The diagonal entries (in bold) represent the squared root average variance extracted by the construct.

## Structural Model and Hypothesis Testing

Findings from the analysis have shown that the structural model is of good fit with values $\chi^2/df = 330$, RMSEA = 0.033, GFI = 0.922, TLI = 0.971, CFI= 0.974, AGFI = 0.904, and PNFI = 0.803. The path analysis in Table 4 and Figure 3 shows that all independent variables were found to have impact on customer loyalty. Brand image, access convenience, perceived value and product involvement have presented significant positive influences on customer loyalty. Whereas, access convenience (β = 0.115), brand image (β = 0.139), product involvement (β = 0.153), and perceived value (β = 0.1) were identified to be associated with customer loyalty at a 95 percent confidence level.

Table 4: Results of Path Analysis

Hypothesized Path	Standardized Beta (β)	Critical Ratio	Significance
H1: Brand Image → Customer loyalty	0.139	2.285*	Yes
H2: Brand Image → Propensity to leave	0.117	1.281 n.s.	No
H3: Product involvement → Customer loyalty	0.153	2.003*	Yes
H4: Product involvement → Propensity to leave	-0.543	-4.475**	Yes
H5: Perceived value → Customer loyalty	0.100	2.705*	Yes
H6: Perceived value → Propensity to leave	-0.125	-2.246*	Yes
H7: Access convenience → Customer loyalty	0.115	2.308*	Yes
H8: Access convenience → Propensity to leave	-0.238	-3.118*	Yes
H11: Transaction convenience → Customer loyalty	0.184	2.754*	Yes
H12: Transaction convenience → Propensity to leave	-0.232	-2.312*	Yes

Notes: ** and * denote significant at 99% and 95% confidence level respectively; n.s. denotes not significant

Figure 3: Results of Path Analysis Generated through AMOS
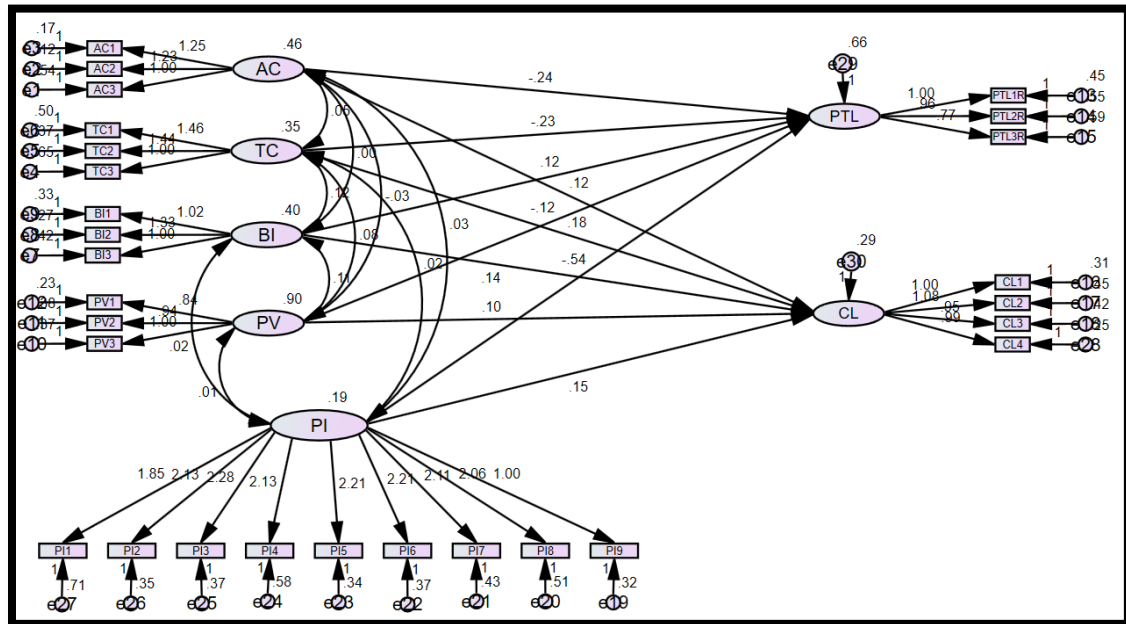
Notes: AC= Access convenience, TC= Transaction convenience, BI= Brand Image, PV= Perceived value, PI= Product involvement, PTL= Propensity to leave, CL= Customer loyalty

Table 4 also indicates that most independent variables were found to have impact on propensity to leave. Noted that brand image is the sole variable to be insignificant between the current relationships. Product involvement (β = -0.543) has shown to have a significant influence on customer propensity to leave at a 99 percent confidence level. Access convenience (β = -0.238) and perceived value (β = -0.125) were found to be associated with propensity to leave at a 95 percent confidence level. Transaction convenience was found to have impact on both customer loyalty (β = 0.184) and propensity to leave (β = -0.232).

Moderating Effects of Access Convenience and Transaction Convenience

The moderating effect of access convenience and transaction convenience was investigated using Hayes' PROCESS Macro for IBM SPSS v24, as it permits analysis of mediation and moderation on complex models. PROCESS (Hayes, 2013) was used with preference towards variance or covariance based structural equation modelling (SEM) to achieve three objectives. Despite varying estimation methods and theories, results from the two alternative analytical techniques are largely identical with differences being rarely substantive (Hayes, Montoya, & Rockwood, 2017). Whereas, the SEM approach holds some serious limitations on moderation, making PROCESS more preferable (MacKinnon, Coxe, & Baraldi, 2012). Nonetheless, the investigated research model, consisted of a single moderator whose interaction corresponded to Model 1 in PROCESS, allowed for relative analytical simplicity. The obtained results are as shown in Table 5 and 6, respectively.

Table 5: Results of Moderating Analysis of Access Convenience

	(Y_1) Customer Loyalty			(Y_2) Propensity to leave		
	B	Se	p-value	B	se	p-value
(X) Perceived Value	-0.154	0.243	0.528 [n.s.]	-0.118	0.330	0.720 [n.s.]
(W) Access convenience	-0.164	0.237	0.488[n.s.]	-0.033	0.321	0.917[n.s.]
Interaction (Perceived Value X Access convenience)	0.056	0.044	0.208 [n.s.]	0.045	0.060	0.459 [n.s.]
Constant	5.326	1.300	0.000**	7.209	1.195	0.000**
	R^2= 0.068; F = 9.386, p-value= 0.000			R^2= 0.048; F = 6.563, p-value= 0.000		

Notes: ** and * denote significant at 99% and 95% confidence level respectively; n.s. represent not significant

**Table 6: Results of Moderating Analysis of Transaction Convenience**

	(Y_1) Customer Loyalty			(Y_2) Propensity to leave		
	B	Se	p-value	B	se	p-value
(X) Perceived Value	-0.204	0.172	0.237[n.s.]	-0.692	0.235	0.003*
(W) Transaction convenience	-0.209	0.179	0.244[n.s.]	-0.756	0.244	0.002*
Interaction (Perceived Value X Transaction convenience)	0.069	0.035	0.050 [*]	0.123	0.048	0.010*
Constant	5.519	0.877	0.000**	7.209	1.195	0.000**
	R^2= 0.216; F = 6.300, p-value= 0.000			R^2= 0.216; F = 6.300, p-value= 0.000		

Notes: ** and * denote significant at 99% and 95% confidence level respectively; n.s. represent not significant

Particularly, findings in Table 6 have demonstrated transaction convenience to possess interaction effect on the relationship between perceived value and customer loyalty (p-value= 0.050); and, the relationship between perceived value and propensity to leave (p-value= 0.010). Yet, access convenience doesn't have any interaction effect on the hypothesized relationships, as indicated in Table 5. The interaction effect of transaction convenience is further plotted in Figures 4 and 5. As

seen in Figure 4, the slope of high transaction convenience is steeper than that of medium transaction convenience and low medium transaction convenience. This suggested perceived value to be more strongly associated with customer loyalty for the high transaction convenience group, as compared to the medium and low medium transaction convenience groups. H13 is, thus, supported. In other words, when the transaction convenience of mobile services is greater, the negative relationship of customer's perceived value and customer loyalty towards the current providers of mobile services is weaker.
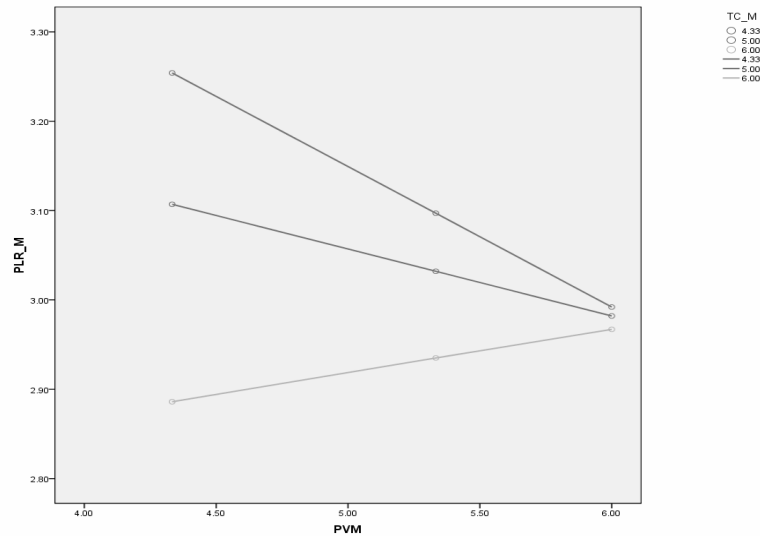
Figure 4: The Moderation Effect of Transaction Convenience on the Relationship Between Perceived Value and Customer Loyalty
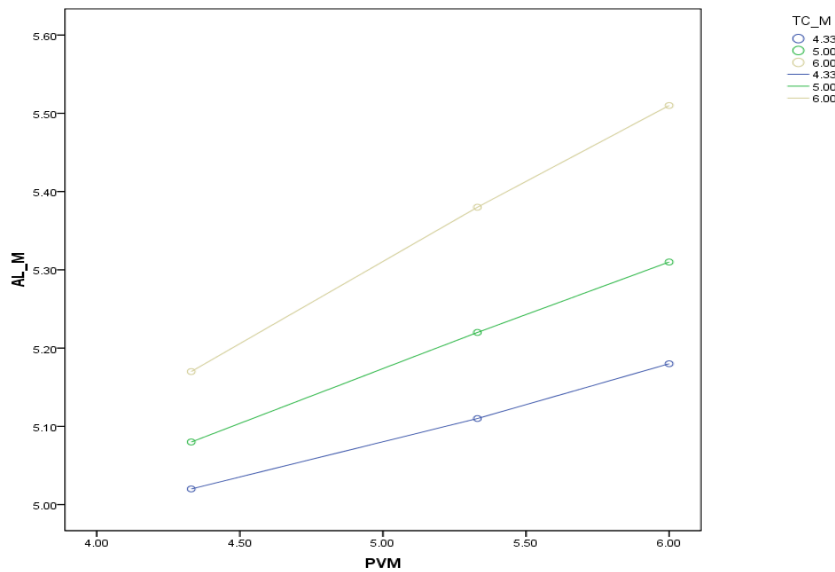
Line 1: high transaction convenience
Line 2: medium transaction convenience
Line 3: low medium transaction convenience

The graph in Figure 5 further shows that the slope of high transaction convenience is steeper than that of medium and low transaction convenience. This suggested that perceived value is more strongly associated with propensity to leave for the high transaction convenience group, as compared to the medium and low medium transaction convenience groups. Hence, H14 is supported. Put differently, negative relationship of customer's perceived value and their propensity to leave the current mobile service providers is weaker when the overall transaction convenience is greater.

Figure 5: The Moderation Effect of Transaction Convenience on the Relationship Between Perceived Value and Propensity to Leave

Line 1: high transaction convenience
Line 2: medium transaction convenience
Line 3: low medium transaction convenience

Discussion of Findings

With reference findings presented in Table 4, product involvement, access convenience, perceived value, brand image and transaction convenience are significant predictors for customer loyalty. This explains the 46.9% ($R^2 = 0.469$) variance. Simply, these factors will lead to the establishment of loyalty among consumers in the mobile service industry. Upon access convenience, findings obtained have been in consistent to that of Pham, Tran, Misra, Maskeliūnas and Damaševičius (2018), which demonstrated direct influence on customer loyalty. In this case, probability of repeated customers is boosted shall access convenience in terms of location, operating hours and contact points of a mobile service operator is improved (Seiders et al., 2000).

Furthermore, brand image has presented a significant influence towards customer loyalty, as aligned to Baumgarth (2008); Bennett, Härtel and McColl-Kennedy (2005); Biedenbach, Bengtsson and Marell (2015); Glynn (2010); Grant, Juntunen, Juga and Juntunen (2014); Han and Sung (2008). In branding, importance of customer experience arose when discussing brand image due to potential influence of outcome on perceptions towards the brand (Veloutsou et al., 2004; Nguyen & Leblanc, 2001). Strategy to deliver positive customer experience would require primary understanding of its antecedents, including quality (Helin, 2014), as well as appeal and delivery (Bagga & Bhatt, 2013); which, would be applicable within the current context.

Product involvement has also been found to positively impact customer loyalty within the mobile service industry in Malaysia. Understood that this variable involves motivation that yield actual actions, considerations are placed upon mere inquiry to actual purchase (Harrigan et al., 2018). Laurent and Kapferer (1985) further broken down the elements of interest, pleasure, risk importance, and risk probability when

undertaking efforts to enhance customer's product involvement. Their findings have supported the current findings; yet, with variation in predicting factors between diverging contexts. This, thus, highlights the importance of factor relevance towards particular context.

Additionally, customer loyalty can be impacted by perceived value. As consistent to the studies by Ling et al. (2013); Leppaniemi et al. (2017), customers' perceived value in assessing worth of particular services have presented strong impact on their purchase behavior. Such, thus, set expectations towards elements of transaction convenience as basic requirements across mobile services, in acquiring level of loyalty (Cham & Easvaralingam, 2012; Cheng, Cham Micheal, & Lee, 2019; Kaura et al., 2015; Ling et al., 2013).

In other cases, investigation made on predictors for propensity to leave has indicated product involvement, access convenience, transaction convenience and perceived value as significant influencers, with the exclusion of brand image. An R2 value of 0.483 (48.3%) is hereby recorded. With significance concerned, declines in each of the predictors would entail customers' incline towards leaving the service provider.

Considering brand image as an insignificant predictor to the propensity to leave, the variable remained crucial in forming positive perception, while indicating capability, reliability, and trustworthiness of a company (Dunuwille & Pathmini, 2016; Jumiati & Norazah, 2015). Nonetheless, such insignificance may be contributed by the lack of differentiation among mobile service plans that weaken customers' interests towards brand-related comparison.

With determining perceived value to have an impact on propensity to leave, the findings are in alignment to past literature alongside formation of customer loyalty (Dodds, Monroe, & Grewal, 1991; Grewal, Monroe, & Krishnan, 1998; Anderson & Sullivan, 1993). In addition, the positive impact of product involvement on the propensity to leave is similar to that of Capistrano (2013). With product involvement constitutes the extent to which a consumer attaches importance to certain attributes offered by the service provider, it would impact consumers' perceptions regarding relative costs and benefits associated with purchase decisions (Capistrano, 2013; Zaichkowsky, 1985). An inverse relationship is, therefore, determined between both customer involvement and propensity to leave a mobile service provider.

Despite its effect on customer loyalty, poor access convenience will not influence customers to leave (Consiglio & Van Osselaer, 2019). Due to minimal efforts required for customers to make online and offline comparisons on mobile service subscription plans (access convenience), the tendency to leave a brand is likely triggered by the perception of consumers towards the branding, value, and level of involvement towards the services purchased.

On the other hand, the moderating effect of access convenience was found to be insignificant between (i) perceived value and customer loyalty, and (ii) perceived value and propensity to leave. Typically, offered access convenience would enhance customer loyalty, while reduce their propensity to leave (e.g. Ling et al., 2013; Pham, 2011). To retain customers would mean continuous enhancement in user-friendliness of navigating the service providers' online platforms. Yet, this research presents

negligible influence of access convenience on relationships among perceived value, customer loyalty and propensity to leave. This might be contributed by similar customers perceive value on the offered products; while access convenience isn't the main influencer to their subsequent actions. With heightened online accessibility and the products' low contact nature, higher repeat patronage and lower likelihood of leaving is achieved shall tasks can be completed under less time and effort (Mahapatra, 2017).

Whereas, transaction convenience was found to have a positive effect on a customer's propensity to leave, as supported by the studies from Ling et al. (2013); Jih (2007); Kaura et al. (2015). Transaction convenience, being magnitude of customer's effort invested to complete a transaction, would include aspects like time, energy, and mental efforts. Further outlook by Pham et al. (2018) has then placed transaction convenience as a stronger influencer over access convenience towards a customer's propensity to leave. Yet, this contradicts the findings by Pham (2018) which have shown a mixture of results. This, thus, indicates that the importance of both constructs is contextual, where firms would need to make identification upon business relevance.

Moreover, the moderating effect of transaction convenience is significant in the relationships between (i) perceived value and customer loyalty, and (ii) perceived value and propensity to leave. Acknowledged that the presence of transaction convenience would strengthen consumer loyalty, whilst reduce customers' propensity to leave their current mobile service providers; increased transaction convenience would weaken the negative relationship between customers' perceived value and their level of loyalty towards particular service provider. This being said, constant maintenance and upgrade in transaction convenience are needed to enhance customer retention and loyalty within the mobile service industry.

Theoretical Implications

Noted that Ji and He (2013), upon the study in linking satisfaction, loyalty to intention of repurchase, has demonstrated sequential relationships in between expectancy disconfirmations to intentions for continual subscriptions, built through satisfaction and loyalty (expectancy disconfirmation -> satisfaction -> loyalty -> repurchase intention). Nevertheless, multiple other researchers have discovered mediating impact of satisfaction on customers' loyalty towards particular brands or product offerings (Iqbal, Hassan, & Habibah, 2018; Lai, Pham, Nguyen, Nguyen, &, Le, 2019). With EDT ultimately defines disconfirmation between expectation and outcome entails satisfaction (Oliver, 1977; 1980); it merely reflects partial discovery, with the lack of pre-experiential elements within the original theory (Hill, 1985). The statement, thus, placed TPB in a crucial integrated position as it connects evaluations to behavioral intentions (Ajzen, 1991); in this case, attitudinal (perceived value), normative (brand image), and behavioral (product involvement, access convenience, transaction convenience) on loyalty and propensity of switched allegiance.

Such is further differentiated upon attitudinal loyalty, which suggested a grounded commitment for continuous supports towards a brand; and behavioral loyalty, which accounted for convenience over intrinsic devotion (Lai et al., 2019). Outlook is placed on switching cost being a direct predictor to customers' loyalty; the proposal is fairly

apparent within the investigated industry. Integrating TPB has reflected the fore-discussed perspectives; as seen suggested by Hung, Yu, and Chiu (2018) with significance of both attitudinal and behavioral factors, and Othman, Hassan, Ibrahim, Saripin, Sapuan and Roslan (2020) on positive individual evaluation, behavioral control (with inclusion of switching cost), alongside societal perceptions. Current findings have been in-lined to that of Liebana-Cabanillas, Alonso-Dos-Santos, Soto-Fuentes and Valderrama-Palma (2017), where functional variables (access and transaction convenience) are being highlighted, triggering behavioral (three factors) over minimalistic attitudinal loyalty (one factor), despite limited to the research's framework. Remarked, control beliefs hold substantial influence towards long-term behavioral intentions, surpassing that of direct impact, with existing indirect influence as seen through the moderating effect of transaction convenience.

In another context, contradicting view was presented by Chadwick and Piartrini (2019), where intrinsic quality and convenience have an insignificant influence on intention for repurchase; often due to sociodemographic aspects – spending capability, deviations in consumption patterns, and subjective norms. Reflected through the findings by Sabine et al. (2017); Lee et al. (2019), individual's societal and demographical attributes have not fall short in providing defined insights which deviate behavioral intentions among different social cohorts. The current study explored moderating effects of service convenience, in addition to their direct relationship on behavioral intentions, as an examination on functional over societal elements; where, clarity has been attained in view of the variables' robustness. This, however, doesn't exclude the potential influence of demographical aspects; as exploitable from the well-dispersed respondent base collected within this study.

Additionally, separations can be viewed through differentiations of the dependent variables. While loyalty is a lasting belief where an organization can offer the desired proposition that triggers repurchases (Oliver, 1999); propensity to leave covers the possibility that a customer would terminate a relationship (Morgan & Hunt, 1994). Deviation is seen though highlighting brand image as a predictor, where it proposed loyalty but not propensity to leave. Again, segmentations come in forms of clusters among existing customers, following the categorization by Ngobo (2017) where different cohorts tend to hold diverse loyalty and switching barriers (e.g. habitual loyals contradict switchers in terms of perceptions towards switching barriers, account for dissimilar variables, further extend of loyalty). With this study placed limelight on theoretical foundation in cause-and-effect between the investigated variables, explaining the constructed framework in totality, researches upon smaller niches would enable further in-depth academic, and application insights.

It is hereby worth noting that the construct for service convenience as proposed by Berry et al. (2003) has been incorporated within this study. Yet, it is not sufficient to state that service innovation in its totality would influence customer retentions within the studied industry. Such is undeniably due to the lack of supportive influence access convenience possesses on the relationships of perceived value towards loyalty and propensity to leave; aside the research's emphasis solely focuses on two out of the five suggested service convenience components. True that conceptual significance would be simpler shall service convenience is classified as a single variable; component-specified studies would provide more targeted exposure, as per previously

mentioned niches within this field of study. In this case, the robustness of accessibility and transaction factors as independent variables.

Managerial Implications

Significance of this research project is placed on the impacts of product involvement, brand image, perceived value, access convenience and transaction convenience towards sustainability of the mobile service industry, specifically in differential influences on customers' loyalty and their propensity to leave. By recognizing the significance of these dimensions, more relevant strategies can be designed by mobile service providers to increase their market competitiveness, through competitive differentiations via the investigated factors.

Noted that access and transaction convenience are related to the amount of time and effort required by consumers to initiate a service and complete a transaction (Seiders et al., 2000); the time and effort of the online website or platform setting of mobile service providers would need to be optimized to ensure a seamless user journey. Optimization of site capacity can be done in terms of bandwidth for fast loading times and reduced waiting times. With determining a maximum of 3 clicks would be ideal when setting up an overall user journey (Pham et al., 2018), the number of clicks required prior service consumption should be further reduced.

Despite the fact that brand image isn't significant in influencing the propensity to leave, the notion of customer experience remains crucial to develop a strong brand image. Brand image being the overall perception formed upon elements that a consumer associates with a brand (Veloutsou et al., 2004; Nguyen & Leblanc, 2001), brand positioning should be constructively executed. Acknowledging quick and easy payment gateway as the brand's objective, minimalistic website and interface designs with short transaction process requirements, coupled with fast loading time would be essential. Brand values should then be communicated prior and after the consumption process (Raj & Roy, 2015; Vera & Trujillo, 2017). Advertisements (digital or non-digital) would be important during the consumers' information searching stage in communicating intended brand messages (i.e. what the brand can offer).

Regarding product involvement being the motivation, a customer has towards getting more information on a product/service, key takeaway falls upon increased tendency of acknowledging decision-defining flaws following more obtained information, which affects repeat purchases. In ensuring error-free user journey, functionality of the main pathway a consumer takes should be prioritized before dwelling upon other areas for inspection. Considerations should be allocated on impact of word-of-mouth, where shared errors can be potentially existed (Temkin Group, 2012). Herewith, a dedicated social media team can be formed to monitor any negative feedback, further ensure damage control prior expansive spreading (Kimmel & Kitchen, 2014).

Perceived value suggests that brands must make a unique, customer-centric proposition whose perceived benefits outweigh the overall costs (Zeithaml, 1988; Sweeney & Soutar, 2001). While fundamentally brands are required to use customer-centrism when developing product value, it is important to constantly update this value (Temkin Group, 2012). With greater connectivity in the digital era, competitors

would also have increased access to others' propositions and provide similar offerings (Almunia, Benetrix, Eichengreen, O'Rourke & Rua, 2010). Innovation in product value, thus, enable brand sustainability by having differentiated offering, while deviating from direct competitions. Realized that innovation can be taxing on a company's resources, fresh ideas can be obtained through crowd-sourcing via social media platforms, through incentive-based initiatives (D'Arrigo & Fachinelli, 2014).

Lastly, focus is placed on understanding the moderating effects of transaction convenience towards the relationship between perceived value and customer loyalty. These effects suggested transaction convenience in reinforcing the product's perceived value, leading to greater potential of repeat purchases. Firms are encouraged to ensure constant responsiveness and efficiency of payment processes or gateway; in turn, allowing quick transactions. An approach is to reduce the extent of details a customer needs to fill prior transactions. Additionally, cookies can also be implemented within digital channels to store customer details to allow automatic form completion. This then speed up the transaction process upon repeat purchases (Pham et al., 2018).

Limitations and Recommendations for Further Research

The context of this study has been limited to B2C mobile service users. Mobile service companies do provide for B2B customers too, but the loyalty of the community is yet to explored despite it having a lower number of corporate customers (though it sees significantly more usage). With technology being a basic component in today's world, the variables identified and tested in this study could be used in other industries including banking, online shopping, medical, etc.

The scope of this study was limited to the loyalty and propensity to leave of mobile service customers. Future research could discuss antecedents of customer loyalty and propensity to leave using a more personal approach linked to emotions and the social behavior of consumers towards current brands they have subscribed to. It can also explore customer perceptions of those brands as opposed to their perceptions towards competing brands. By focusing on the intrinsic factors highlighted and encompassing them into their operations/marketing strategies, mobile service firms could improve their visibility by providing more value, as compared to other service providers which are competing for lower prices.

Conclusion

To summarize, mobile service providers, being offering high volume-low volume services, should identify and analyze factors affecting customer loyalty alongside their propensity to leave, for the sake of long-term sustainability. Understood that the absence of factors that influence customer loyalty does not necessarily lead to customers leaving a mobile service provider. Loyalty among customers and their propensity to leave can be influenced by several factors including product involvement, access convenience, perceived value and transaction convenience. Transaction convenience further possesses a moderating effect that enhance the relationships of (i) perceived value and customer loyalty; as well as (ii) perceived

value and propensity to leave. It's worth noting that while declination in brand image would not result switching in allegiance among current users, it should remain an invested factor to reinforce loyalty towards particular mobile service. As such, mobile service providers should work on enhancing their perceived value among customers, in answering the need for competitive differentiation within the industry. Such can be achieved through better connectivity, more flexible data subscription plans, as well as family packages that distinguish a brand from its competitors on the market. Having said that, there stands other factors beyond scope of the current study, with the like of price relevance, marketing efforts, the human elements and extent of customizability that work in congruence towards delivering an all-rounded service experience; which, can be examinable for future researches within similar area of study.

Implications for Asian Business Context

As highlighted by Nazir, Ali, and Jamil (2016) in their study on the Asian context argued that brand image promote loyalty among customers; yet, it isn't without generation of satisfactions. Conversely, Dunuwille and Pathmini (2016) placed formation of brand image as the consequent of performance-based experiences. While performance-based image retains customers, continuous innovations in mobile service packages shouldn't be overlooked to prevent customers' switches. Aside brand image for the latter circumstance, strategical differentiations via leadership retention, competitive market share acquisition and market niche, as proposed by Nikolaev, Makhotaeva, Malyshev, and Malyuk (2017), are, thus, feasible. Asia being a fairly technological matured market; service leaders can strive through capacity-based innovations to economically improve service offerings, whilst service contenders can pursue niche markets to avoid direct competitions.

Consumers' self-concepts at the center, service customization has proven an essential factor considered towards building brand reputation; in turn, influences customer retentions (Tahir & Batool, 2018). Attention is hereby brought to the significance of product involvement in generating long-term consumers' patronages. Services can be standardized in mass productions; yet, customizability remains a workable alternative shall customers' desires arose (Ding & Keh, 2016). Often, customization is viewed as a significance of service quality, which precedes customers' loyalty (Eum, Ahn & Rhim, 2019). High volume-low-volume services concerned, generalized service selections remain vital as available mobile services that meet common requests; yet, flexibility in personalized services can be an alternative to retain existing customers upon specific occasions in elevating consumers' positive perceptions.

Noteworthy disclosure laid limelight on access convenience and transaction convenience as predictors of customers' retention particularly in the Asian context. Nonetheless, Almarashdeh, Jaradat, Abuhamdah, Alsmadi, Alazzam, Alkhasawneh, and Awawdeh (2019) have further proposed disparity in Asian consumers' perceptions on convenience between different accessed platforms. Such, followed by the currently obtained findings, transpired implications in areas of conveniences. An alternative being increasing the number of platforms accessible by consumers, especially for transactional purposes, so as to maximize convenience among customers. Whereas, other components of service convenience as outlined by Berry et al. (2002) can be potential reinforcements. Expanded upon previous discussions,

consumers' heterogeneity is deemed impactful towards individual's perceived value upon consumptions (Huang, Mou, See-To & Kim, 2019). With this in mind, segmentation-based service innovation can possibly ensure improved decision convenience following more targeted service benefits, in accounting for technological foundation of the research's location.

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