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Article

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MARKETING | RESEARCH ARTICLE

The impacts of omnichannel retailing properties on customer experience and brand loyalty: A study in the banking sector

Quynh Tran Xuan^{1*}, Hanh T.H. Truong¹ and Tri Vo Quang¹

Abstract: Omnichannel retailing is regarded as an emerging trend in banking. The purpose of this study is to analyze the potential effects of omnichannel retailing properties on customer experience and brand loyalty; it further explores the moderating role of transaction channels. Its centrality has been focused on omnichannel retailing cues comprising integration quality, perceived fluency, and assurance quality; customer experience is analyzed through hedonic and utilitarian values. This study uses the non-probabilistic sampling technique with approximately 1547 respondents via the self-administered questionnaires. The findings indicate that perceived fluency and assurance quality are proved as the critical components of hedonic and utilitarian experiences. It has been found that increasing integration quality leads to a more positive perception of fluency and enhances omnichannel experience quality by switching various channels. This study validates the importance of hedonic and utilitarian experiences which significantly contribute to constituting brand loyalty between clients and banks in omnichannel retailing. The importance of various channels was affirmed as a significant moderator when indicating the effect of perceived fluency on customer experience via physical channels is stronger than digital channels. Applications and limitations are further discussed.

Subjects: Consumer Behaviour; Services Marketing; Brand Management

Keywords: omnichannel retailing; customer experience; integration quality; perceived fluency; perceived assurance

1. Introduction

The advanced evolution of technology has resulted in the introduction of various shopping channels through which consumers may frequently interact with retailers during the consumption journey. In addition to physical stores or catalogs, consumers are likely to access via smartphones, tablets, social media, applications, and more (Mainardes et al., 2020). This blurred the discrepancy between shopping channels, and the demand for using channels seamlessly became an emerging issue in the retailing world (Shen et al., 2018). In response to this trend, the retail industry has significantly grown from multichannel to cross-channel, and now omnichannel retailing which was conceptualized as a unified approach to controlling various touchpoints to bring a seamless experience for consumers (Shen et al., 2018; Shi et al., 2020).



Following this tendency, banking is one of the leading sectors in applying omnichannel retailing to financial transactions (Mainardes et al., 2020; Straker et al., 2015). Omnichannel retailing modernizes the banks' activities and changes the way in which financial organizations interact with their clients across the availability of multiple service channels such as physical branches, ATMs, websites, apps, or social networks (Mainardes et al., 2020; Reydet & Carsana, 2017). This approach is expected to generate an integrated and consistent experience, which may meet customers' constantly changing needs.

Omnichannel is proven as an emerging method to improve customers' shopping experience and solve the drawbacks of previous multichannel approaches to retailing experience (Hickman et al., 2020; Reydet & Carsana, 2017; Straker et al., 2015). Some research pointed out that experience quality is a crucial element that determines the success or failure of an omnichannel business (Saghiri et al., 2017; Shi et al., 2020). Therefore, organizations should identify the expectation of consumption experience in the omnichannel environment. Nevertheless, previous publications on omnichannel experience only concentrated on several certain aspects instead of the attempts to provide a holistic viewpoint (Shi et al., 2020). Besides, the experiential essence of omnichannel banking and its effects on behavioral outcomes have been relatively less discovered (Hickman et al., 2020). So, a need for further empirical research on the determinants of omnichannel experience and its consequences has been highlighted in the banking sector (Gasparin, 2020; Shi et al., 2020).

In omnichannel retailing, *channel integration quality* has been extensively confirmed as an essential attribute of omnichannel success in various sectors such as electronics (Goraya et al., 2020), restaurants (Sun et al., 2020), groceries (Z. W. Lee et al., 2019), and clothes (Savila et al., 2019). For the banking sector, the integrated action of different service channels may stimulate the client's positive service experience (Mainardes et al., 2020; Straker et al., 2015). It is regarded as the key to managing the customers' interactions across various channels, remaining the central position of omnichannel retailing (Shi et al., 2020). According to Shen et al. (2018), *perceived fluency* could be another potential driver that impacts omnichannel experience. Perceived fluency refers to the natural and continuous essence when switching channels (Mainardes et al., 2020; Shen et al., 2018). In the online environment, it was proven to significantly affect customers' affection, cognition, and behavior (Cassab & MacLachlan, 2006; Mosteller et al., 2014). In the setting of using various service channels, perceived fluency relates to the "continuity of tasks and transactions when switching platforms" (Majrashi & Hamilton, 2015). Nonetheless, the fluency across various channels, which impacts how clients perceived omnichannel experience in banking, has been less discussed (Shin, 2016).

In addition to the two factors mentioned above, *assurance quality* has long been treated as a primary concern in financial services. Unlike various contexts, the banking sector requires more safety, security, and privacy (Kundu & Datta Saroj, 2015; Ruparelia et al., 2010). Previous publications revealed perceived risk (Glavee-Geo et al., 2019), privacy (Jozani et al., 2020), system security (Islam Jamid et al., 2020), problem-solving (Komulainen & Makkonen, 2018), and reliability (Bhattacharya et al., 2019) in the online environment have a significant impact on customer experience and satisfaction (Mbama & Ezepue, 2018; Yoon, 2010) and customer engagement (Jozani et al., 2020). The centrality of these, however, is only focused on the online or offline environment, whereas the effect of assurance quality in the multichannel setting like banking is whether it exists any differences.

Consequently, this research contributes to the emerging streams of omnichannel retailing by analyzing the effects of integration quality, perceived fluency, and assurance quality on omnichannel customer experience and brand loyalty in banking. It also attempts to explore the moderating effects of various channels in the structural model. In this study, omnichannel customer experience is formulated considering utilitarian and hedonic values that are expected to link with brand loyalty. This paper is organized as follows. The next section presents the major

theoretical constructs. Subsequently, the hypotheses and the research model are proposed. Followed by research methodology before presenting the results of the empirical study and discussions. We conclude by providing major theoretical and managerial implications along with an explanation of the limitations and recommendations for future research.

2. Theoretical background

2.1. Omnichannel retailing in banking

An evolution in retail channels was recognized as switching from mono channel to multichannel, cross-channel, and now to omnichannel (Shen et al., 2018; Shi et al., 2020). *Mono channel* documents the status in which retailers majorly offer products through one single channel by physical stores and ignore different service channels (Shi et al., 2020). While *multichannel retailing* refers to using several independent channels to satisfy different market segments (Mosquera et al., 2017). Followed by *cross-channel retailing* which is regarded as an attempt to partially integrate online channels and traditional channels (Cao & Li, 2015). The latest concept regarding multi-channel service is *omnichannel* which holistically incorporates various touchpoints and allows customers to access any channel at whatever stage of the customer journey they are in (Mosquera et al., 2017). It was conceptualized as a unified approach to controlling various channels to bring a seamless experience for consumers.

The bank sector is a critical example of applying omnichannel to financial interactions by integrating their physical and digital channels (Hamouda, 2019). Through numerous channels, clients may interact with different financial services provided by omnichannel banking (Zhang et al., 2017). For physical channels, service production and provision are simultaneously delivered through face-to-face interactions between clients and staff, the branch is an example (Sousa & Voss, 2006). Regarding the second type, clients can access financial transactions remotely through a website on laptops, apps on smartphones, or via ATM without the intervention of contact personnel (Mainardes et al., 2020; Seck & Philippe, 2013). Its particularity is that it could be available at any time and any place (Zhang et al., 2017). Omnichannel enables customers to commence a transaction with one channel like apps on smartphones and complete their transactions at physical branches. Its focus has been on seamless and consistent transactions when switching various channels (Hamouda, 2019; Tang et al., 2014). Hence, customers in this setting are regarded as mixed customers who are seeking a homogeneous experience across multiple channels (Seck & Philippe, 2013).

2.2. Customer service experience in omnichannel retailing

Customer service experience relates to the internal and subjective responses which customers have toward any direct or indirect contact with a service organization (Verhoef et al., 2009). Financial organizations are now trying to create a superior experience aiming to attract and retain their customers in the era of fierce competition. Omnichannel retailing is regarded as an emerging approach to delivering a memorable experience for clients (Hickman et al., 2020). The consistency of using multiple-channel services enables customers to become more satisfied with transactions (Hamouda, 2019). Omnichannel experience is thus understood as customers' seamless cognitive and affective state of experience resulting from personal interactions with an integrated multi-channel environment.

In omnichannel banking retailing, the interaction between customers and different channels creates an experience that may shape their thoughts and behaviors (Mainardes et al., 2020; Reydet & Carsana, 2017). According to Komulainen and Makkonen (2018), pleasure experiences with omnichannel banks will bring positive effects on future users, while negative experiences will threaten the future use of bank services. Customer trust and satisfaction could be strengthened due to the positive experiences of multichannel service quality (Zhang et al., 2018). Loyalty is also produced by a high experience in service integration (Hamouda, 2019; Reydet & Carsana, 2017). In this study, the customer experience was approached from the theoretical rationale of values of

utilitarianism and hedonism in multichannel shopping (Chang & Tseng, 2013; Wu & Chang Ya, 2016). Utilitarian experience is understood as “an overall assessment of functional benefits and sacrifices” (J.-S. Chen et al., 2019). This concept focuses on meeting a customer’s particular consumption needs in a specific situation and reflects shopping as a task and work-related state. A hedonistic experience documents “a customer’s subjective and personal evaluation of the entertainment and emotional worth of the experience” (J.-S. Chen et al., 2019). Its focus has been on the entertaining needs or hedonic benefits delivered by the consumption journey.

2.3. Omnichannel integration quality in banking

According to Zhang et al. (2018), increasing the number of interaction channels brings additional value for clients with more options, but it also creates more complexity in management. Diversifying service channels requires the need for tighter integration (Hamouda, 2019; Z. W. Lee et al., 2019). A higher level of integration may result in increasing experience quality as well as improving customer outcomes in omnichannel banking (Hamouda, 2019; Hossain et al., 2017). In the multichannel setting, overall service quality is perceived by the quality of all interaction channels customers used during the consumption journey, it is called channel integration quality (Sousa & Voss, 2006). According to Shen et al. (2018), this construct refers to the capability of providing a uniform and unified service experience for customers via various service channels. Multichannel services will not become omnichannel if lacking the integration of independent channels (Hamouda, 2019; Shen et al., 2018). Channel integration is critical for service organizations adopting the omnichannel model. It may create competitive advantages (Wakolbinger & Stummer, 2013); improve overall satisfaction (Emrich et al., 2015); increase the corporate image, search intention, and patronage intention; reduce perceived risks (Herhausen et al., 2015; Seck & Philippe, 2013).

Numerous scholars have employed the dimensions developed by Sousa and Voss (2006) to measure integration quality in various multichannel settings (Hossain et al., 2019, 2020; Z. W. Lee et al., 2019; Shen et al., 2018). It was suggested as a two-dimensional concept including channel service configuration quality and integrated interaction quality. Channel service configuration quality consists of channel choice breadth and channel service transparency. *Channel choice breadth* explains the extent to which customers may gain access to information from different channels to meet their needs. In the banking system, a breadth of channel choice is based on the spectrum of mediated and technology-based channels, ranging from the branch network, ATM systems, mobile banking, and internet banking to financial service advice centers (Banerjee, 2014). *Channel service transparency* relates to customers’ awareness and familiarity with all current channels as well as their attributes (Sousa & Voss, 2006). As a way of creating transparency in channel-service configuration, banks could make an effort to inform customers about their various channel systems as well as clarify new features or services available offered in each channel.

The second dimension is integrated interaction quality which documents the consistency of cross-channel interactions, comprising process consistency and content consistency. *Process consistency* represents consistency in the process between different channels, or integration within the channel as well as across channels (Sousa & Voss, 2006).

Content consistency represents the consistency of information provided by different channels (Sousa & Voss, 2006). This relates to the integration of transaction data and interaction data in which the former involves records of the customer’s banking information while the latter relates to records of the customer’s inbound and outbound contact. Content consistency pertaining to service operations and process consistency pertaining to service design could coexist in the issues of integrated interaction quality at technology-based firms such as banking organizations (Banerjee, 2014). The integration of front- and back-office service design is regarded as a critical obstacle to delivering the integration vision for customer experience.

2.4. Perceived fluency

Perceived fluency relates to the perception of natural and continuous essence when switching the channels of interactions (Shen et al., 2018). The origin of this concept came from the ease of information processing (Reber et al., 2004), it was later understood as the continuity of cross-platform transitions and task migrations (Shin, 2016). Majrashi and Hamilton (2015) conceptualized perceived fluency in omnichannel retailing as “how the customer feels when traveling between the channels of business interaction without interruptions and impediments”. Shen et al. (2018) pointed out that channel fluency is a critical component in omnichannel retailing as stimulating positive impacts on omnichannel service usage. In the online shopping environment, fluency has significant influences on trust, cognitive effort, and choice outcome judgments (Mainardes et al., 2020; Mosteller et al., 2014).

In order to measure perceived fluency, the current research utilizes the approach of Majrashi and Hamilton (2015) when reviewing this concept under five dimensions. The first dimension is *task fluency* which documents the smooth perception of customers as switching tasks between various channels. *Content fluency* relates to the continuous experience of accessing content and information when migrating from one channel to another one. Thirdly, *interaction fluency* is regarded as the extent of continuous and interconnected interactions between various service channels. The follow-up dimension is *cognition fluency* which describes customers' unchanged awareness about services as switching channels and *feeling fluency* refers to customers' consistent feelings towards the services after migrating between various channels.

2.5. Assurance quality

Numerous scholars have treated assurance quality as a particularly important attribute in financial services because safety and security are customers' primary concerns (Glavee-Geo et al., 2019; Kundu & Datta Saroj, 2015). Assurance quality in multichannel services relates to the capability of creating belief and confidence for customers by using various channels (Hossain et al., 2019). Consumers tend to be interested in the security and privacy of their individual information and shopping history when carrying out transactions on different channels (Hossain et al., 2020). These characteristics are the core of omnichannel consumption intention (Y. Chen et al., 2018). As a result, assurance quality which represents the extent of security and privacy by utilizing different channels is essential for omnichannel retailing in banking (Gao & Huang, 2021; Hossain et al., 2020).

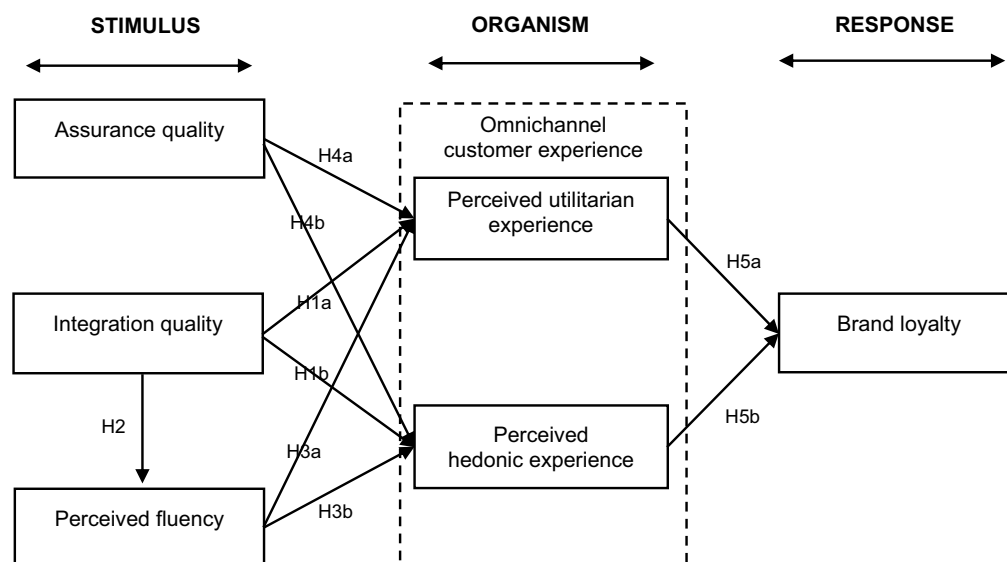
Based on the suggestions by Hossain et al. (2019), assurance quality is a multi-dimensional construct relating to *privacy*, *security*, and *service recovery accessibility* within all channels. *Privacy* describes the extent to which customers' individual information is protected in the multichannel environment. *Security* relates to the level of safety when carrying out transactions on different channels. In a multichannel environment, consumer information is automatically synchronized on channels such as websites, apps, ATMs, or branches. Multilayer security systems could be employed to increase online security while cameras or guards are the means of ensuring physical security (Hossain et al., 2020). Ultimately, *service recovery accessibility* is associated with the capability of supporting and collecting customer feedback conveniently during transactions at omnichannel banks (Hossain et al., 2019, 2020).

3. Hypotheses development

3.1. The stimulus—organism—response (S-O-R) theory

In the marketing literature regarding the influences of environmental stimuli on personal behavior, the stimulus—organism—response (S-O-R) theory (Mehrabian & Russell, 1974) has long been acknowledged as a solid background for relevant research. In this framework, the stimulus (S) refers to a set of attributes influencing customers' perceptions. While the organism (O) explains the intervention of stimuli on internal reactions. Such stimuli are converted into meaningful information before resulting in approach or avoidance responses (R). Although this theory

Figure 1. The research framework.



originated from the psychological field, its application has been employed to interpret the importance of environmental cues on consumer behavior in different contexts (Islam et al. 2020). When applied to a multichannel retail environment, atmospheric cues are regarded as the stimuli that impact the emotional and cognitive states of consumers and then exert behavioral outcomes including the demand for exploring or purchase intention (Hao Suan Samuel et al., 2015; Pantano & Viassone, 2015; Zhang et al., 2018). From an omnichannel banking perspective, numerous scholars have employed this background for their works (Cheah et al., 2020; Gasparin, 2020; Loureiro & Sarmento, 2018).

Similarly, an omnichannel bank (online and offline) could be treated as a place where the banking products are introduced, the omnichannel service is delivered and clients have interacted with the stimuli of banking experiences (Loureiro & Sarmento, 2018). This study considers *integration quality*, *perceived fluency*, and *assurance quality* as significant stimuli (S) in contemporary banking settings to influence customers' internal states. The organism relates to cognitive and affective states that intervene between stimulus and behavioral responses. Thereby, the current research attempts to enrich the relevant literature of S.O.R theory by considering both *utilitarian experience* and *hedonic experience* (O) as the organism factors that motivate external responses. Lastly, *brand loyalty* (R) is regarded as the "individual responses" under the impacts of experiential aspects.

Previous publications found that demographic characteristics might exert significant differences in customers' attitudes and behaviors in terms of the service industry (Hossain et al., 2020; Z. W. Lee et al., 2019). Therefore, demographic factors including gender, age, job, and educational level should be treated as control variables in the current study. The research model is presented in Figure 1.

3.2. Integration quality and omnichannel customer experience

Abundant research denoted that a higher level of integration may result in increasing experience quality as well as improving customer outcomes in omnichannel banking (Hamouda, 2019; Hossain et al., 2017; Mainardes et al., 2020). Lacking channel integration may cause inconsistent information during service encounters, constraining the pleasure consumer experience (Saghiri et al., 2017; Shen et al., 2018). The capability of accessing seamless touchpoints may induce hedonic responses (J.-S. Chen et al., 2019). Customer engagement in multichannel search also brings playful experiences (Srisuwan & Barnes, 2008). Using integrated channels might strengthen utilitarian

experiences by searching for information, checking prices, and purchasing products with more options (J.-S. Chen et al., 2019; Mainardes et al., 2020). Therefore, it is assumed that high integration quality leads to increasing the experiential quality of both hedonic and utilitarian aspects in omnichannel banking, two hypotheses are suggested as follows:

H1a: Integration quality positively influences customers' utilitarian experience in omnichannel banking

H1b: Integration quality positively influences customers' hedonic experience in omnichannel banking

3.3. Integration quality and perceived fluency

According to Shen et al. (2018), integration quality may exert positive impacts on perceived fluency and omnichannel service usage. Banerjee (2014) denoted that channel integration enables customers to freely choose different options to meet their needs. Channel choice breadth facilitates the continuity of service, information, and content after channel transactions in omnichannel settings (H.-H. Lee & Kim, 2010). Channel transparency and familiarity with current channels might strengthen the efficiency and accuracy of channel transition, thus leading to a fluent channel transition (Wu & Chang Ya, 2016). While process consistency enables customers to remain unchanged judgments after switching channels, hence creating a smooth feeling and cognition (Shen et al., 2018). Based on the above arguments, the following hypothesis is postulated:

H2: Integration quality positively influences perceived fluency in omnichannel banking

3.4. Perceived fluency and omnichannel customer experience

Mosteller et al. (2014) stated that perceived fluency is likely to influence customers' cognitive and affective experience in the online shopping setting. Continuous information and interconnected content help customers achieve a more enjoyable state. Fluency in the process makes customers perceive that less effort and time was required for their shopping task, exerting positive utilitarian experiences (Im & Ha, 2018). Further, fluency in a purchase journey may stimulate pleasure experiences as well as enhance positive behavior outcomes (Barwitz & Maas, 2018; Shen et al., 2018). Regarding the banking context, making multichannel service encounters simpler and more practical can increase perceptual fluency between channels, and then result in positive affect experiences (Mainardes et al., 2020). Under the above analysis, two hypotheses are assumed:

H3a: Perceived fluency positively influences customers' utilitarian experience in omnichannel banking

H3b: Perceived fluency positively influences customers' hedonic experience in omnichannel banking

3.5. Assurance quality and omnichannel customer experience

Security and safety are primary concerns in financial services, especially in the online environment (Jun & Palacios, 2016; Loureiro & Sarmento, 2018; Martins et al., 2014). Financial organizations have spent more funds on minimizing perceived risk which may exert negative experiences (Mbama & Ezepue, 2018). Further, Wagner et al. (2017) concluded that risk assessment and transparency are the foremost determinants of experience in the banking context. For internet banking, customers tend to be worried about uncertain things, they thus expect more efforts to protect financial transactions and private information (Liao & Wong, 2008). Higher security results in a more positive experience towards the service of mobile banking (Jun & Palacios, 2016). Based on these, this research assumes that assurance quality makes sense to both utilitarian and hedonic aspects of customer experience in omnichannel banking:

H4a: Assurance quality positively influences customers' utilitarian experience in omnichannel banking

H4b: Assurance quality positively influences customers' hedonic experience in omnichannel banking

3.6. Omnichannel customer experience and brand loyalty

Brand loyalty is understood as “the customer's positive feelings towards the brand, willingness to continuously purchase it, and long-term usage of that brand” (Tatar & Eren-Erdogmus, 2016). Creating loyal customers is a challenging duty in the banking sector (Mainardes et al., 2020). Customer experience has been recognized as a critical antecedent of customer loyalty in various studies. Positive affect experience positively influences behavioral outcomes like loyalty in retail banking (Reydet & Carsana, 2017). Pleasure responses in emotion are influential in the development of future brand loyalty and consumption decisions (Morrison & Crane, 2007). A positive experience might long-term impact on brand loyalty and competitive advantages (Srivastava & Kaul, 2016). In omnichannel banking, brand loyalty could be produced by the attempts of creating memorable experiences through integrated multichannel interactions (Hamouda, 2019; Mainardes et al., 2020). Further, Lewis and Soureli (2006) identified customer loyalty as the consequence of cognitive and affective experience journeys in omnichannel banks. As a result, the authors predict that brand loyalty may be shaped by both two aspects of customer experience in omnichannel banking as follows:

H5a: Customers' utilitarian experience positively influences brand loyalty in omnichannel banking

H5b: Customers' hedonic experience positively influences brand loyalty in omnichannel banking

4. Research methodology

4.1. Sampling process and data collection

In order to collect data, the authors carried out an online survey of banking clients in Vietnam. In this study, the non-probabilistic sampling technique was applied because the target population was unknown. The self-administered questionnaires were distributed to the clients who used multichannel banking services over a link shared on social media or emails between July and October 2021. The target of this sample concentrated on communities or groups relating to financial service consumption. A control question was used to ensure that respondents must interact with a specific bank at least over two channels including an online channel (websites or apps) and a physical channel (branches or ATMs). The respondents who were not suitable for the above characteristics could be excluded from the sample. After the collection process, the research group obtained 1780 questionnaires from respondents. Yet only 1547 questionnaires were available with the subsequent analysis, yielding a response rate of 87%.

4.2. Measurement

The measurement of the constructs was developed from previous research (Hamouda, 2019; Hossain et al., 2020; Shen et al., 2018). The first construct was *omnichannel integration quality*, considered as a second-order factor. It included channel choice breadth, channel service transparency, process consistency, and content consistency. While each dimension was measured by three statements, a total of 12 affirmations for integration quality. This scale was referenced from the research validated by Shen et al. (2018). The second factor, *perceived fluency*, was also treated as a second-order factor with five dimensions comprising task fluency, content fluency, interaction fluency, cognition fluency, and feeling fluency. While task fluency and content fluency were represented by three variables each, the remaining dimensions had two statements each. All statements of this scale were adapted from Shen et al. (2018). Likewise, *assurance quality* was

a second-order construct containing privacy, security, and service recovery accessibility adapted by Hossain et al. (2020). Privacy and service recovery accessibility had three statements each, and security included two statements. The fourth construct was *omnichannel customer experience* which was measured through utilitarian and hedonic aspects. Five statements were employed for each aspect, all variables were based on Hamouda (2019) and Mainardes et al. (2020). Lastly, *brand loyalty* was measured by Hamouda (2019) with five statements. The five-point Likert scale was applied to the measurement of the above statements, presenting from 1 = strongly disagree to 5 = strongly agree.

In front of the mass study, the questionnaire was initially reviewed by two marketing professors at a business university and was then checked about reliability and validity by the pilot test with a small sample of 20 bank clients in Vietnam. The present study employed SPSS 22.0 and Smart PLS-SEM 3.0 as two main applications for the analysis. The structural equation modeling (SEM) technique with the partial least squares (PLS) method was utilized to verify the proposed hypotheses in the research model.

4.3. Preliminary analysis

According to the recommendations from previous scholars about the data collected from a sole source via questionnaires (Harman, 1976), the researchers should ensure that the common method bias (CMV) is no threat to the validity of the research data. First, Harman's single-factor test was employed to examine the issues from CMV by the principal component analysis. The results denoted that the first unrotated factor accounted for smaller than 50% of the variance and revealed no single dominant factor. Second, the authors used a variance inflation factor (VIF) of the collinearity test in partial least square—structural equation modeling as an index to check CMV. These values should be lower than 3.3 (Kock & Lynn, 2012). The findings drawing from the collinearity test showed the range of VIFs distributed from 1.000 to 2.908. Based on two preliminary analyses, it could be concluded that the common method bias was not an issue in the datasets.

5. Data analysis and results

5.1. Profile of the sample

According to demographic statistics (Table 1), it showed that the respondents were mostly female (68.8%), while the male group only accounted for 30.6%. Almost the participants aged from 18 to 30 years old with 90.8%. In terms of occupation, students hold the largest rate with 64.3%, followed by institution staff with 11.4%, enterprise employees with 7.4%, and businesses with 5.8%. The findings pointed out a high level of education since the majority of the respondents were at the undergraduate level. Besides, mobile apps and ATMs were the two main channels used by the respondents in omnichannel transactions (64.4% and 22.9%, respectively). Nearly 80% of the respondents have frequently used omnichannel bank services.

5.2. Measurement model analysis

According to instructions suggested by Anderson and Gerbing (1988) for the PLS-SEM technique, the analysis procedure was carried out via two steps: the measurement model was first assessed through the validity and reliability of the items, followed by estimating the structural model to evaluate both the model's theoretical explanatory power and the significance levels of hypothesized relationships. In order to test the construct reliability and validity, several indexes including indicator loadings, composite reliability (C.R), convergent validity, and discriminant validity were used in this study (Hair et al., 2016).

The findings in Table 2 showed that all loadings exceeded the recommended threshold value of 0.7. CR values for all constructs were also found to be well above the cutoff value of 0.70 (Hair et al., 2016). Hence, the scales achieved internal consistency. Moreover, each construct's average variance extracted (AVE) value was all higher than 0.50 (Hair et al., 2016). Next, Fornell and

Larcker's (1981) criterion was employed to examine the discriminant validity of research constructs, represented in Table 3. It indicated that all the square roots of AVE values were greater than the corresponding correlation coefficients. Hence, the discriminant validity was satisfactory in this research. Consequently, the measurement model was suitable for the next steps.

In the research model, three constructs including integration quality, perceived fluency, and assurance quality were regarded as second-order factors. The analysis of relational weights between the first-order constructs and the second-order constructs was carried out and represented in Table 4. It demonstrated that integration quality was significantly recognized as a second-order factor with four first-order factors comprising the breadth of channel service choice, transparency of channel service, content consistency, and process consistency. Similarly, perceived fluency and assurance quality were treated as second-order factors with their first-order constructs in this study.

5.3. Structural model analysis

The criteria for evaluating the quality of the PLS-SEM model as well as the hypothesis testing steps in this study are based on the recommendations of Hair et al. (2017). First, the results of the variance inflation factor (VIF) were less than 5, confirming that the collinearity between explanatory variables was not a serious problem in the structural model (Hair et al., 2016). It was, therefore, possible to continue the next steps of the evaluation. The assessment of the coefficient

Table 1. The demographic characteristics of respondents (N = 1547)

Factor	Variable	Frequency (n)	Percentage (%)
Gender	Male	473	3.6
	Female	1064	68.8
	Prefer not to answer	10	0.6
Age	From 18 to 22	1023	66.1
	From 23 to 30	382	24.7
	From 31 to 60	138	8.9
	More than 60	4	0.3
Current employment	Students	995	64.3
	Enterprise employees	114	7.4
	Institution staff	176	11.4
	Businesses	89	5.8
	Retired	79	5.1
	Others	94	6.1
Level of education	Junior college	118	7.6
	Undergraduate	1271	82.2
	Postgraduate	118	7.6
	Others	40	2.6
The banking channel used most frequently	Branches	107	6.9
	Websites	90	5.8
	ATMs	354	22.9
	Mobile apps	996	64.4
Frequency for using omnichannel bank services	First time	48	3.1
	Seldom	156	10.1
	Sometime	763	49.3
	Usually	580	37.5
TOTAL		1547	100%

Table 2. The results of confirmatory factor analysis				
Constructs	Variables	Loading	C.R	AVE
PASS (Assurancequality)	APR (Privacy)		0.913	0.777
	APR1-My personal information across various channels of the bank is protected.	0.867		
	APR2-My personal information across various channels of the bank is not shared with others.	0.894		
	APR3-My financial information across various channels of the bank is not shared with others.	0.883		
	ASE (Security)		0.904	0.825
	ASE1-All the channels of the bank have adequate security features.	0.910		
	ASE2- I feel secure about using this bank's multiple channels.	0.906		
	ARE (Service recovery accessibility)		0.901	0.752
	ARE1-If there is any service problem, I can use multiple channels of the bank to report service failure.	0.869		
	ARE2-The bank provides the means whereby I can voice my complaints.	0.885		
	ARE3-I am aware of the channels through which I can report service issues to the bank.	0.846		

(Continued)

Table 2. (Continued)				
Constructs	Variables	Loading	C.R	AVE
IQUA (Integration quality)	IBR (Breadth of channel service choice)		0.886	0.722
	IBR1- At my bank, I can choose alternative channels for a given service	0.882		
	IBR2- At my bank, I can carry out primary transactions through various channels of my choice	0.862		
	IBR3- At my bank, regardless of the channel I choose, I can use other channels to get information or help	0.804		
	ITR (Transparency of channel service)		0.880	0.710
	ITR1- I know all the service channels available from my bank	0.831		
	ITR2- I am aware of the differences between service attributes across different channels.	0.872		
	ITR3- I know how to use my bank's different service channels to meet my needs	0.825		
	ICT (Content consistency)		0.891	0.732
	ICT1- I obtain the same result or information regardless of the service channel that I use	0.827		
	ICT2- When I interact with one channel, my interactions with other channels are always taken into account.	0.879		
	ICT3- The information is consistent across different channels	0.860		
	IPR (Process consistency)		0.875	0.700
	IPR1- The service feelings are consistent across different channels of the bank	0.839		
	IPR2- The service images are consistent across different channels of the bank	0.852		
	IPR3- The service performance is consistent across different channels of the bank	0.818		
(Continued)				

Table 2. (Continued)				
Constructs	Variables	Loading	C.R	AVE
PFLU (Perceived fluency)	FTA (Task fluency)		0.863	0.677
	FTA1- I can migrate my transactions smoothly across different channels	0.858		
	FTA2- I can carry out my transactions smoothly from one channel to another	0.848		
	FTA3-The channel integration allows for fluently continuing on the task across different channels.	0.761		
	FCT (Content fluency)		0.880	0.710
	FCT1- My bank supports my continuity of seeing/reading the same information on the new channel after my channels transition	0.826		
	FCT2- My bank supports my continuity of seeing/reading certain content/information from where I left off after my channels transition	0.854		
	FCT3- After the channels transition, I can easily find what I was seeing/reading on the previous channel	0.847		
	FIN (Interaction fluency)		0.858	0.751
	FIN1- My interactions with the transaction across different channels are continuous	0.872		
	FIN2- When I interact with my bank, there is no need to think about which service channel I am using	0.862		
	FCO (Cognition fluency)		0.884	0.793
	FCO1- After the channel transition, I have the same understanding of the transactions	0.891		
	FCO2- After the channel transition, I can correctly perform the transactions on the new channel	0.889		
	FFE (Feeling fluency)		0.914	0.841
	FFE1- After the channel transition, I have the same level of satisfaction	0.919		
	FFE2- After the channel transition, I have the same level of likeness	0.915		

(Continued)

Table 2. (Continued)				
Constructs	Variables	Loading	C.R	AVE
Perceived utilitarian experience	EUT			
	EUT1- Using multiple channels of this bank creates a positive value for its customers	0.785	0.912	0.674
	EUT2- Using multiple channels of this bank offers value for money	0.838		
	EUT3- Using multiple channels of this bank saves my time	0.853		
	EUT4- Using multiple channels of this bank is quick and easy	0.825		
	EUT5- Using multiple channels of this bank is convenience	0.803		
Perceived hedonic experience	EHE			
	EHE1- When I experience the various service channels in an integrated way, I feel satisfied	0.793	0.908	0.663
	EHE2- When I experience the various service channels in an integrated way, I feel enjoyable	0.822		
	EHE3- When I experience the various service channels in an integrated way, I feel excited	0.827		
	EHE4- When I experience the various service channels in an integrated way, I feel pleasure	0.818		
	EHE5- When I experience the various service channels in an integrated way, I feel interested	0.810		
Brand Loyalty	BLO			
	BLO1-I say positive things about this bank to other people	0.837	0.923	0.706
	BLO2- I recommend this bank to others	0.855		
	BLO3- I encourage friends and relatives to do business with this bank	0.861		
	BLO4- I consider this bank my first choice to avail of banking services	0.828		
	BLO5- I will do more business with this bank in the future and also	0.819		

Table 3. Discriminant validity assessment

	APR	ARE	ASE	BLO	EHE	EUT	FCO	FCT	FFE	FIN	FTA	IBR	ICT	IPR
APR	.882													
ARE	.607	.867												
ASE	.715	.669	.908											
BLO	.490	.528	.501	.840										
EHE	.486	.572	.542	.623	.814									
EUT	.603	.588	.634	.636	.749	.821								
FCO	.458	.537	.510	.550	.654	.620	.890							
FCT	.465	.520	.502	.561	.669	.643	.615	.843						
FFE	.397	.488	.424	.541	.596	.547	.615	.602	.917					
FIN	.450	.542	.488	.524	.648	.612	.667	.647	.583	.867				
FTA	.503	.549	.481	.572	.633	.631	.644	.631	.590	.643	.823			
IBR	.607	.614	.616	.550	.537	.614	.504	.497	.399	.494	.558	.850		
ICT	.571	.594	.607	.513	.500	.588	.515	.507	.395	.491	.520	.672	.856	
IPR	.504	.602	.523	.505	.543	.474	.498	.489	.482	.499	.529	.577	.602	.837

Notes: The main diagonal shows the square of the AVE (averaged variance extracted). Significance at $p < 0.05$ level is shown in bold.

APR = Privacy; ASE = Security; ARE = Service recovery accessibility; IBR = Breadth of channel service choice; ITR = Transparency of channel service; ICT = Content consistency; IPR = Process consistency; FTA = Task fluency; FCT = Content fluency; FIN = Interaction fluency; FCO = Cognition fluency; FFE = Feeling fluency; EUT = Perceived utilitarian experience; EHE = Perceived hedonic experience; BLO = Brand loyalty.

Table 4. Relation weights between first-order constructs and second-order constructs

Second-order constructs	C.R	AVE	First-order constructs	Weights	T-values
Integration quality (IQUA)	0.923	0.501	IBR-Breadth of channel service choice	0.838	**82.063
			ITR- Transparency of channel service	0.811	**65.062
			ICT-Content consistency	0.867	**107.328
Perceived fluency (PFLU)	0.929	0.521	IPR-Process consistency	0.826	**66.546
			FTA-Task fluency	0.850	**83.748
			FCT-Content fluency	0.854	**80.754
			FIN-Interaction fluency	0.832	**74.936
			FCO-Cognition fluency	0.837	**74.346
Assurance quality (PASS)	0.924	0.604	FFE-Feeling fluency	0.800	**67.397
			APR-Privacy	0.889	**110.105
			ASE-Security	0.882	**114.313
			ARE-Service recovery accessibility	0.869	**92.473

Notes: *p < 0.05, **p < 0.01.

of determination (R^2) could be considered to be a crucial part of structural model evaluation. In this study, brand loyalty was the main construct of interest, and its overall R^2 value (0.454) was found to be a moderate one in behavior-related- research, according to many scholars (Hair et al., 2012; Henseler et al., 2009). It implied that independent variables could jointly explain 45.4% of the variance of the endogenous construct-brand loyalty. Furthermore, the R^2 value of utilitarian experience value and hedonic experience value were 0.613 and 0.607, regarded as quite strong values. Next, as expected, all of the research hypotheses had path coefficients that were statistically significant at t-values above 1.96, indicating support for these hypotheses on data. The results of the path coefficient analysis are presented in Figure 2.

The empirical results indicated that two aspects of experience values had positive impacts on brand loyalty with equal degrees ($\beta_{5a}=0.385$ and $\beta_{5b}=0.335$, respectively). Therefore, both H5a and H5b were supported in this study. Meanwhile, for the premises of these experience values in the omnichannel banking context, all three factors comprising assurance quality, integration quality, and perceived fluency significantly predicted both the utilitarian aspect and hedonic aspect, in which the customer perception of fluency had the strongest effect ($\beta_{3a}=0.467$ and $\beta_{3b}=0.623$) by comparison with perceived assurance quality ($\beta_{4a}=0.313$ and $\beta_{4b}=0.117$) and integration quality ($\beta_{1a}=0.084$ and $\beta_{1b}=0.094$). Notably, the findings also pointed out the prominent role of integration quality in enhancing the customer perception of fluency toward banking transactions when the relationship between these two variables was significantly positive ($\beta_2=0.696$). Additionally, the effects of control variables in the research model were analyzed. The findings revealed that all control variables (age, income, gender, and education) exerted no significant impact on dependent factors (utilitarian experience, hedonic experience, and brand loyalty). Table 5 presents the results of the testing hypotheses.

5.4. Analysis of the mediating effects

To assess the mediating roles of omnichannel customer experience in the structural model, the indirect-effect test was performed by Smartpls 3.0 software and bootstrapping procedures (Preacher & Hayes, 2008). The findings drawing the mediating test for the indirect effects of omnichannel customer experience was exhibited in Table 6. For the utilitarian experience aspect, the bootstrapping estimation supported its mediating role for the relationship between the quality of omnichannel properties (assurance quality, integrated quality, and perceived fluency) and brand loyalty when all t-values were larger than 1.96 and p-values were lower than 0.05 (Preacher & Hayes, 2008). The same conclusion was revealed for the mediating role of the hedonic experience towards the relationship between omnichannel quality and brand loyalty.

Table 6 The results of mediating role test

Figure 2. The results of the structural model.

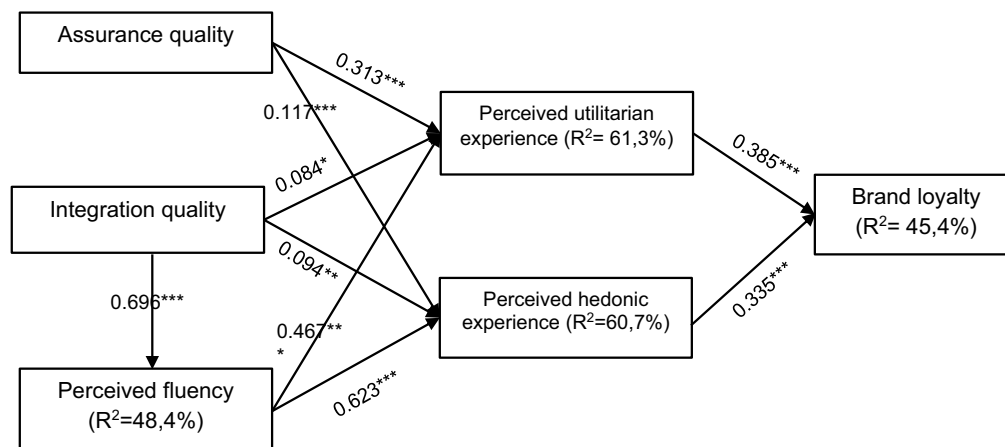


Table 5. The results of the structural model

Hypotheses	Std. β	T-values	VIF	Result
H1a: Integration quality \rightarrow Perceived utilitarian experience	0.084	*2,496	2.908	Supported
H1b: Integration quality \rightarrow Perceived hedonic experience	0.094	*3,013	2.908	Supported
H2: Integration quality \rightarrow Perceived fluency	0.696	**32,149	1.000	Supported
H3a: Perceived fluency \rightarrow Perceived utilitarian experience	0.467	**15,203	2.102	Supported
H3b: Perceived fluency \rightarrow Perceived hedonic experience	0.623	**22,432	2.102	Supported
H4a: Assurance quality \rightarrow Perceived utilitarian experience	0.313	**10,553	2.693	Supported
H4b: Assurance quality \rightarrow Perceived hedonic experience	0.117	**3,837	2.693	Supported
H5a: Perceived utilitarian experience \rightarrow Brand loyalty	0.385	**13,417	2.278	Supported
H5b: Perceived hedonic experience \rightarrow Brand loyalty	0.335	**10,250	2.278	Supported

Notes: * $p < 0.05$, ** $p < 0.01$.

5.5. Moderating effects of transaction channels

Multigroup analysis (MGA) was utilized to explore the significant differences between clients when using different channels including physical channels (Branches, ATMs) and digital channels (Websites, apps). According to Henseler et al. (2016), the measurement invariance of composites (MICOM) method was suitable for PLS-SEM as a composite-based analysis technique. MICOM was carried out through three steps including (1) configural invariance assessment, (2) the establishment of a compositional invariance assessment, and (3) an assessment of equal means and variances.

Based on Table 6, the findings revealed that the measurement invariance of two groups (physical channels and digital channels) has been partially established. Table 7 represents MGA results using both Henseler's MGA method and the permutation test. For Henseler's MGA, the p -value lower than 0.05 or higher than 0.95 indicates a significant difference between specific path coefficients across two groups at a significance level of 5%. In the Permutation test, the p -value lower smaller than 0.05 shows the difference at the 5% level of significance. Both methods pointed out significant differences in the effects of interaction quality on perceived fluency; perceived fluency on perceived utilitarian experience; and perceived fluency on perceived hedonic experience. These effects in physical channels were all stronger than in digital channels.

Table 6. Results of invariance measurement testing using permutation

Constructs	Configural invariance (sample algorithms for both groups)	Compositional invariance (Correlation = 1)		Partial measurement invariance established	Equal mean assessments			Equal variance assessments			Full measurement invariance established
		Original correlation	Confidence Interval		Mean original differences	Confidence interval	Equal	Variance original differences	Confidence interval	Equal	
PASS	Yes	1.000	[1.000; 1.000]	Yes	0.169	[-0.109;0.108]	No	-0.410	[-0.201;0.210]	No	No
IQUA	Yes	1.000	[1.000; 1.000]	Yes	0.218	[-0.106;0.112]	No	-0.526	[-0.206;0.213]	No	No
PFLU	Yes	1.000	[1.000; 1.000]	Yes	0.170	[-0.111;0.111]	No	-0.470	[-0.208;0.248]	No	No
EUT	Yes	1.000	[1.000; 1.000]	Yes	0.219	[-0.123;0.116]	No	-0.349	[-0.217;0.239]	No	No
EHE	Yes	1.000	[1.000; 1.000]	Yes	0.216	[-0.115;0.114]	No	-0.330	[-0.191;0.239]	No	No
BLO	Yes	1.000	[1.000; 1.000]	Yes	0.259	[-0.114;0.107]	No	-0.262	[-0.182;0.221]	No	No

Table 7. Multigroup analysis results

Relationship	Coefficient —physical channels	Coefficient —digital channels	Coefficient difference	p-value different (Two- tailed)		Supported
				Henseler's MGA	Permutation test	
IQUA → EUT	0.055 ^{n.s}	0.094 [*]	0.039	0.595	0.636	No/No
IQUA → EHE	0.101 ^{n.s}	0.086 [*]	−0.015	0.843	0.852	No/No
IQUA → PFLU	0.756***	0.649***	−0.107	0.022	0.038	Yes/Yes
PFLU → EUT	0.565***	0.414***	−0.150	0.025	0.032	Yes/Yes
PFLU → EHE	0.713***	0.575***	−0.319	0.024	0.030	Yes/Yes
PASS → EUT	0.285***	0.330***	0.045	0.490	0.504	No/No
PASS → EHE	0.070 ^{n.s}	0.139***	0.069	0.308	0.354	No/No
EUT → BLO	0.342***	0.389***	0.056	0.401	0.398	No/No
EHE → BLO	0.368***	0.324***	−0.044	0.565	0.538	No/No

Notes: *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$; n.s = not support.

6. Discussions and contributions

6.1. Discussions

The present study brings significant findings for creating customer experience and brand loyalty in omnichannel banking by analyzing the importance of integration quality, perceived fluency, and assurance quality. Firstly, the perception of fluency is proved to remarkably impact omnichannel customer experience comprising utilitarian and hedonic aspects. These parallel the conclusions of past studies (Im & Ha, 2018; Mosteller et al., 2014; Shen et al., 2018), whose findings indicated that fluency in the transaction journey enables customers to satisfy their economic benefits and generate enjoyable experiences. Similarly, this study confirms the significant relationship between assurance quality and customer experience in omnichannel banking. It validates previous propositions when considering security, safety, and privacy as the determinants of financial service experiences (Bhattacharya et al., 2019; Jun & Palacios, 2016).

As expected, the findings point out that integration quality plays a critical role in shaping both hedonic and utilitarian experiences when using omnichannel banking services. These results are consistent with prior studies revealing that the capability of accessing seamless multichannel services may stimulate playful emotions and strengthen utilitarian values (J.-S. Chen et al., 2019; Hamouda, 2019; Mainardes et al., 2020). The result also identifies the positive effect of integration quality on perceived fluency in omnichannel banking. This finding strongly supports the conclusions by Shen et al. (2018) that increasing integration quality between various channels leads to enhancing the fluent and smooth perception in bank transactions.

Another finding is that both hedonic and utilitarian experiences are regarded as essential components to constitute brand loyalty in omnichannel banks. Pleasure emotional responses originating from multichannel experiences could induce long-term behavioral commitments between clients and bank brands (Reydet & Carsana, 2017; Srivastava & Kaul, 2016). Moreover, this study indicated that various channels might be considered as a critical factor that exerted considerably moderating effects on between PFLU and EUT; PFLU and EHE. These effects were strengthened on physical channels rather than digital channels. It implies that customers may get higher experiential values through fluency in transaction procedures via ATMs and branches compared with interaction by digital platforms. This could be partially interpreted by the intervention of the human aspects in physical channels. Banking employees are professionally educated to support their clients in direct encounters. On contrary, customers have to solve the problems when interacting online by themselves because of distance or time causes.

6.2. Theoretical implications

The findings make several critical contributions to the current literature. The first contribution is offering a better understanding of the omnichannel banking model. In addition to integration quality; perceptual fluency and assurance quality could be regarded as the determinants of success when carrying out the omnichannel model in banking. Further, it extends the S-O-R theory by Mehrabian and Russell (1974) in a particular context of omnichannel retailing in banking. Meanwhile, integration quality, perceived fluency, and assurance quality are treated as the external cues of retailing environment that then stimulate omnichannel experiential responses (hedonic and utilitarian aspects), these experiences lastly strengthen brand loyalty in omnichannel banking.

Moreover, this study advances prior works referring to the perceived fluency construct (Mainardes et al., 2020; Shen et al., 2018). This research validates the significant relationship between integration quality and perceived fluency by Shen et al. (2018) in another sector like banking. The results illustrated that integration quality is influential to the development of perceived fluency in omnichannel banking, and two factors importantly contribute to generating omnichannel service experience. Hence, perceptual fluency is worth attention to as a key to omnichannel banking.

Another contribution is enhancing the knowledge of customer experience, which is considered as the centrality of omnichannel retailing in banking. The findings denote that seamless integration, smooth transactions, and security quality remain very essential roles to constitute a pleasurable experience in multichannel banking. Customers tend to achieve a better experience when various channels are highly integrated and security-related problems are ensured. Continuity and fluency between various channels enable customers to obtain greater utilitarian benefits by reducing the time for interactions and increasing shopping opportunities with more options. In other words, customer experience quality is particularly critical in forming brand loyalty in the omnichannel banking context. Enhancing the hedonic and utilitarian attributes of service experiences may remarkably contribute to generating brand loyalty in omnichannel banking. Customer experience is also a critical factor that generates significant moderating effects for the interrelationships between omnichannel properties quality and brand loyalty. The knowledge gained from the current research will help to better understand the customer experience in the literature on omnichannel services.

Furthermore, this study attempts to bring new knowledge about the importance of different channels in the omnichannel banking experience. It was found that various channels (physical and digital channels) in omnichannel banking could be critical moderators for the effects of fluency on customer experience in omnichannel banking. The findings suggest that the impacts of perceived fluency on both hedonic and utilitarian experiences are higher for physical channels. Clients are likely to achieve a better experience based on fluency in interactions on physical channels rather than digital ones.

6.3. Managerial implications

In the era of technological innovations and intensive competition, the banking sector is facing numerous emerging challenges. These findings may provide a deeper understanding of the relationship between omnichannel characteristics, customer experience, and brand loyalty in banking. Firstly, it implies that omnichannel experiences could become a competitive advantage to create differences from rivals in the same industry. Achieving positive omnichannel experiences through satisfying hedonic and utilitarian values may strengthen the long-term engagement between customers and omnichannel banks. It is thus recommended that bank managers could incorporate omnichannel strategies into their plans, inducing pleasurable customer experiences that help to create a profitable customer base.

Based on the research findings, it reveals that one of the ways to develop positive experiences is by increasing integration quality between various channels. This result points out the need for seamlessly integrating channels and implementing financial transactions into a simple and practical process. Further, perceived fluency is also proved as a critical component that can differentiate banks that adopt the omnichannel strategy. Its implication calls for the attempts of investments to make service channels more effective operations, free of problems, and no interruptions. Moreover, the results highlighted the importance of perceived assurance in a sensitive sector such as banks. Given bank managers should pay close attention to privacy, security, and recovery accessibility in omnichannel services. In the banking context, customers' personal and financial information should be protected and respected. Security and safety when carrying out transactions between service channels have to be treated as primary priorities. More efforts for feedback and support in emergency cases are essential to be invested.

Besides, various transaction channels were confirmed as significant moderators in the research model. This conclusion suggests various policies for managers to improve customer experience in the setting of omnichannel banking through the effects of perceived fluency. For physical interactions, the role of service employees needs to be regarded as a critical component to bring a better omnichannel experience. They must be trained behaviorally and professionally, and updated with the latest technology applications aiming to assist customers quickly. For digital interactions, artificial intelligence may be applied to improve interaction quality and customer support capabilities. It helps to provide a smooth and fluent experience in conducting a transaction on digital platforms.

7. Limitations and future studies

Even though this study attempts to bring significant findings, this work presents certain limits which need to be improved. The first limitation relates to the geographic concentration of the respondents who mostly live in large cities. This problem can constrain the representation of the research sample. A study containing a larger cross-section of geographic locations is expected to be carried out in the future. Furthermore, the sampling technique of non-probability for accessibility is another limitation of the current study. It may result in several difficulties in generalizing the findings. In the future, the proposed model should be replicated in different sectors that are applying the omnichannel approach for their customers. Also, further studies may broaden the dimensions of the omnichannel model by including new components.

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Data availability statement

The data that support the findings of this study are available from the corresponding author, upon reasonable request.

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