Do People Really Care if it's Phygital Retail? Exploring the Relationship Between Customer Experiences and Customer Behaviors[☆]

LiMei Liu, Seong Ho Lee *

Department of Business Administration, Hanbat National University Daejeon, Korea

Abstract

Phygital is an approach that integrates digital technology into physical retail spaces to provide innovative and interactive customer experiences. As this approach becomes more widespread, understanding its effects on consumer behavior is crucial. This study aims to bridge this gap by investigating the factors that influence cognitive, emotional, technological, sensory, and social experiences in phygital retail. It also seeks to understand how these factors influence customer engagement, ultimately impacting customers' patronage intentions and recommendation intentions. The study surveyed 380 customers in China who had experienced phygital retail. The results show that various dimensions of customer experience influence customer engagement, with sensory and social encounters having the greatest impact. Customer engagement, in turn, affects customers' patronage intention and recommendation intentions. Importantly, this study examines how specific sub-dimensions of customer experience impact recommendation intentions in a phygital retail environment. These insights provide valuable strategic guidance for service-oriented retailers.

Keywords: Phygital retailing, Customer experiences, Customer engagement, Intention to recommend, Patronage intention

1. Introduction

With the explosive advancement of technological innovations and the continuous evolution of consumer behavior, the retail industry is undergoing an unprecedented transformation. According to the NilsenIQ 2022 survey report, the Chinese retail industry has shown positive signs of recovery and adaptation. Although the offline retail market has demonstrated strong resilience and growth, it has not yet reached expected levels. Meanwhile, the continuous expansion of e-commerce continues to challenge traditional retail formats, and its widespread influence cannot be ignored. As an integral part of brick-and-mortar retail, supermarkets must carefully consider their future direction. For traditional retail, it is crucial to devise and implement new strategies that are attuned to the dynamic landscape of contemporary retail in order to maintain competitiveness in the digital age. This signifies a trend towards the integration of phygital elements, where digital advancements enhance physical shopping experiences.

Phygital refers to the evolution of physical establishments into digital environments, blending physical and digital elements. This approach comprises a total redesign of store concepts along with the use of digital resources for sales support in order to offer a distinctive customer experience (Batat 2019). For instance, in other phygital retail environments, the usage of smart shopping carts makes scanning and checkout easier. Consumers can pay with their phones before leaving the store, avoiding the usual checkout lines. These smart shopping carts also include functions such as navigation to product locations and promotional information. Other phygital retail venues, such as North Face stores, offer unique experiences to customers. Customers can use virtual reality headsets in some establishments to simulate

a trek around Yosemite National Park (Dua 2015). These distinctive experiences not only make shopping more enjoyable, but also highlight the potential for combining technology with actual store settings in physical retail spaces. Ultimately, the quality of the customer experience has a significant impact on obtaining a competitive advantage (Homburg, Jozić, and Kuehnl 2017).

Since extensive research on the application of the phygital experience across a variety of fields such as education, banking and insurance, aviation, healthcare, hospitality, dining, and entertainment, the studies have clearly proved the experience's numerous contributions. Van (2019) emphasized its enhanced role in the educational process, Kumar et al. (2024) investigates into how customers' involvement and intentions to keep using the bank are impacted by phygital experiences. Additionally, Akmermer (2022) investigated the specific applications of phygital experiential marketing in the tourism industry and examines how tourism businesses should utilize phygital marketing to enhance visitor engagement and satisfaction.

While in the retail sector, the phygital strategies has spurred widespread application and growth, its specific impact has not been fully analyzed. Banik and Gao (2023) revealed the forms of experiences customers enjoy in the phygital retail environment. Batat (2019) found how this environment could be used to create a luxurious shopping experience. Pangarkar, Arora, and Shukla (2022) detailed the critical role of social interaction in creating immersive shopping experiences, and Lawry (2022) found that customers' pursuit of status and fashion leadership significantly influenced their interactive behavior in the phygital shopping experience.

Despite retailers have acceptance of this new concept, comprehensive evaluation and documentation of its efficacy have yet to achieve the expected breadth and depth. Future research should thoroughly investigate many parts of this framework in order to more properly quantify and actualize the numerous components of customer experience. Touni et al. (2020) suggested that future study would focus on optimizing the combination of phygital elements, as studies demonstrated that this integration can significantly enhance customer engagement.

This study seeks to bridge a research gap by offering retailers strategic guidance for effectively deploying and optimizing phygital retail models. While the literature extensively discusses the broad impacts of phygital experiences, few studies delve into how these experiences specifically affect customer behavior. Thus, what is the effect of customer experiences on customer engagement in phygital environments?

How does customer engagement influence their patronage intentions and recommendation intentions? To address these questions, this study will explore customer experiences from sensory, emotional, cognitive, technological, and social dimensions based on experiential marketing theory. Through an analysis of surveys conducted at Freshippo, this study will reveal how these dimensions translate into enhanced customer engagement and long-term business success. Our objective is to provide deeper insights and improve customer experience. By understanding the dynamic relationship between customer experience and engagement, retailers can develop more effective market strategies, thereby enhancing customer loyalty and gaining a competitive edge.

This study explores the impact of many subdimensions of experience in the phygital retail environment, an area that existing literature has not adequately studied. The results will provide strategic guidance for retailers, helping them design more effective market strategies for improving customer loyalty and competitive advantage. This study's implications, both theoretical and practical, will offer important insights to the future development of the retail industry and provide practical guidance and viable strategies for retailers committed to improving customer experience.

The next part will provide a comprehensive review of the relevant structures and their interrelationships, laying the groundwork for our research hypotheses. These hypotheses will guide the development of our research model. Section 4 details the methodology, which is followed by results in Section 5. The last section will emphasize our research's contribution to existing theoretical knowledge and its practical significance for marketing practitioners. Finally, this study will reflect on its limitations and propose future directions for exploration of this topic.

2. Literature review

2.1. Customer experience

In customer behavior research, experience is characterized as a personal event with significant emotional meaning based on the interaction between consumers and products or services (Grundey 2008). These experiences span the entire process before and after the purchase, serving as key factors driving customer decisions and forming purchase intentions (Carù and Cova 2003). In the retail industry, creating exceptional customer experiences faces many challenges, requiring the management and optimization of multiple touch points. Therefore, designing engaging and systematic customer experiences has

emerged as an emphasis priority for marketing researchers and practitioners.

Customer experience emphasizes on the emotional, cognitive, social, and sensory reactions of customers to retailers (Honora, Wang, and Chih 2024). Additionally, Stein and Ramaseshan (2016) argue that technological experiences play an important role in consumer relations with stores and should be a key focus of customer experience research. In their qualitative comparative analysis, Pekovic and Rolland (2020) divided customer experience into six dimensions: emotional, cognitive, sensory, social, behavioral, and technological.

Customer experience is critical to keeping an edge over competitors (Gao et al. 2021). Some researchers believe that customer experience significantly affects brand equity and loyalty (Biedenbach and Marell 2010). Similar line, Roy et al. (2022) showed that customer experience positively influences customer commitment and engagement behavior. Moreover, Groth (2005) found that customers with a good store experience maintain good relationships with the store. Through the emotional dimension of in-store purchasing experience, phygital experiences provide significant value to customers (Batat 2019). Bitner (1992) believes that customer sensory experience in the service environment have a favorable impact on service providers.

Through the perspective of consumer psychology, sensory experiences may stimulate psychological and behavioral responses (Huang and Chen 2022). In the initial stages of customer experience, emotions may play a more significant role; however, as consumers progress and gain additional knowledge, cognitive assessments play a bigger role (Kranzbühler et al. 2018). As a component of customer experience management, cognitive processes (such as searching, product/service selection, or pricing) are crucial because they can be controlled by retailers (Verhoef et al. 2009). Mele et al. (2021) explores the strong correlation between phygital retail experience, particularly in the sense of social and emotional experiences. This multi-dimensional experience model has led to a transition from basic service points to technology-driven stores, emphasizing principles of technology, interaction, and entertainment touchpoints (Pantano 2016). This shift reduces the hassles of in-store shopping and enhances positive experiences (Aggarwal, Saini, and Gupta 2023).

Therefore, this study primarily focuses on the five dimensions of cognitive, emotional, sensory, social, and technological, positing that these dimensions can more accurately reflect the overall consumer experience.

2.1.1. Cognitive experience

Cognitive experience refers to the information processing that occurs in the brain after an individual interacts with stimuli (Rose et al. 2012). In the study of environmental psychology, cognitive responses typically include the thinking, reasoning, and evaluation processes that individuals engage in when faced with stimuli. Particularly in retail contexts, cognitive experience mainly involves consumers' evaluation of their shopping experience, which is often closely related to their expectations (Lipkin 2016).

Research has shown that cognitive experience can significantly improve customer engagement and loyalty, whether in online or offline contexts (Brun et al. 2017). Consumers' cognitive experience directly influences their purchasing behavior, especially when it aligns with or exceeds their expectations (Gentile, Spiller, and Noci 2007).

2.1.2. Emotional experience

Emotion plays a constructive role in human experiences, representing a psychological state that influences behavior. We define emotion as a series of emotional responses triggered throughout the customer journey, shaped by interactions with both the digital and physical aspects of a service or product (Mele et al. 2024). These emotional responses can vary in intensity, ranging from mild to strong and encompassing both positive and negative emotions (Schmitt 1999).

Understanding the role of emotions in the shopping environment allows retailers to gain deeper insights into their customers, providing valuable guidance for effective store management (Bagdare and Jain 2013). This is particularly true in luxury retail settings, where emotional experiences play a central role in shaping consumer outcomes (Prestini and Sebastiani 2021).

2.1.3. Social experience

Gentile, Spiller, and Noci (2007) pointed out that social experience is the response of consumers to their relationship with the company and their social identity during the consumption process. However, with the advancement of technology, the patterns of social interaction are changing. Lemon and Verhoef (2016) highlighted that the social domain is now shaped by interactions between customers, employees, and partners, often occurring through various non-human interfaces. This trend has sparked discussions about social experience in phygital environments.

Puntoni et al. (2021) have demonstrated the significant impact of social experience on customer engagement, loyalty, and well-being. However, the

existing literature still has shortcomings in exploring social interactions in the complex context of Phygital environments. Specifically, current research mainly focuses on traditional social experiences and has less discussion on how effective social interactions can be achieved through non-human interfaces in phygital environments.

Based on the Computers Are Social Actors theory, research shows that even the slightest social cues can prompt people to view computers as social actors rather than mere inanimate tools. However, whether this phenomenon applies to phygital environments remains an unresolved mystery. Therefore, this study aims to fill this research gap by deeply exploring customers' social experiences with machines in phygital environments.

2.1.4. Sensory experience

Sensory experience refers to the overall experience obtained through the five senses (sight, hearing, touch, taste, and smell). According to Chang and Cheng (2023), an individual's sensory experience and their judgment of it directly influence their attitude toward the products or services being offered, indicating that sensory experience plays an important moderating role in consumer behavior.

Schmitt (1999) explored how companies can influence consumer purchasing behavior through sensory stimuli such as sight, hearing, and touch. Hermes and Riedl (2021) found that optimizing sensory stimuli like lighting, sound, and smell in complex shopping environments can enhance the consumer experience and boost sales. Additionally, Wakefield and Blodgett (2016) demonstrated through empirical research how sensory elements affect customers' shopping behavior, especially impulse buying and shopping duration, thereby increasing consumption opportunities.

2.1.5. Technological experience

Technological experience plays a crucial role in modern customer experience. McCarthy and Wright (2004) were the first to propose technological experience as a dimension of customer experience, emphasizing the importance of technology in interactions between customers and brands. Technological experience refers to the overall experience that customers gain through their interaction with technology, including the convenience, enjoyment, and ease of information access they feel during the shopping process through various technological means (such as automated services, virtual reality).

As digital technology has become more prevalent, technological experience has become an integral part of the consumer shopping journey (Verhoef et al. 2009). This shift allows customers to engage with brands in more personalized and interactive ways, enhancing the depth and satisfaction of their shopping experience. Research indicates that technological experience indirectly influences customers' repurchase intentions by boosting customer satisfaction (Rose et al. 2012).

2.2. Consumer experience in phygital retailing

As more and more consumers seek not only products but also experiences formed in environments that combine physical and digital elements—so-called phygital environments—a new kind of consumer experience is swiftly emerging. This experience transcends the single physical or digital form, integrating the characteristics of both into a unified ecosystem (Batat 2019). The phygital concept refers to the symbiotic relationship between physical and virtual spaces, offering a more enriched and immersive experience (Ballina, Valdes, and Del Valle 2019).

Freshippo combines supermarket, convenience store, and restaurant scenarios into an integrated online-offline operation mode. Customers can place orders via a mobile app, enjoy free delivery services within a 3 km radius of the store, and also opt for in-store pickup. Inside Freshippo supermarkets, electronic price tags offer not only prices but also coupons, nutritional data, and featured video advertising. Customers can use the store's app to easily locate products and trace their origin by scanning QR codes on RFID tags, which also provide information such as product ratings and reviews. Additionally, Freshippo has experimented with facial recognition payments and robot delivery at self-service terminals. By leveraging big data analysis of customers' purchase history and personal characteristics, Freshippo delves deeper into consumer behavior and sends promotional information about new products to targeted customer groups through its app.

2.3. Customer Engagement (CE)

CE developed as a key construct in recent years, increasingly gaining attention from practitioners and scholars due to its potential influence on consumer buying behavior (Brodie et al. 2011). CE has been widely used in a variety of disciplines such as management, psychology, and organizational behavior. CE is a psychological condition caused by interactive and collaborative engagements between customers and a specific agent or object within the context of service relationships (Brodie et al. 2011). This concept presents the behavioral manifestations of customers' reactions to specific products, brands, or organizations (Ting, Abbasi, and Ahmed 2021).

In marketing literature, CE is frequently seen as either a unidimensional or multidimensional construct, primarily incorporating the felling, cognitive, and/or behavioral components of the relationship customer-brand or company connection (Brodie et al. 2011). For example, Mollen and Wilson (2010) view customer engagement as a psychological state that originates from the emotional and cognitive connections customers have with brands in specific contexts. Additionally, Kumar et al. (2010) established customer engagement from a value perspective, using the phrase customer engagement value. It is noteworthy that Prentice, Wang, and Loureiro (2019) multidimensional perspective dominates the literature, particularly focusing on the behavioral dimension (Mollen and Wilson 2010).

Within studies on the antecedents of customer engagement, store engagement includes customers' passion, social interaction, and aware involvement with store projects (Vivek, Beatty, and Morgan 2012). These engagement behaviors not only influence purchase intentions (Prentice, Wang, and Loureiro 2019) but also comprise giving assistance and promoting products through WOM. (Hollebeek and Chen 2014), corporate profits (Kumar et al. 2010), and usage intention (Brodie et al. 2011). Additionally, they involve civic behavior, social media participation, participation in surveys, or developing new products (Van Doorn et al. 2010), and also loyalty (Brodie et al. 2011). In this study, we chose a unidimensional structure for analysis.

2.4. Patronage intentions

Patronage in consumer behavior research is defined as "all possible dynamic intrinsic characteristics in the process of store selection" (Laaksonen 1993). The profitability of an organization largely depends on the positive patronage intentions of its customers. Research on patronage intention has been widely applied in retail, service industries such as, hotels, and tourism, and has also been increasingly used in e-commerce studies in recent years.

Reynolds and Sundström (2014) reported that European retailers have improved customer attitudes by offering new services, thereby directly or indirectly influencing consumers' patronage intentions. Pan and Zinkhan (2006) categorized the factors influencing retail patronage into product-related, market-related, and personal factors, noting that product quality, service quality, and variety are most closely related to consumers' decisions in choosing a particular store. Additionally, customer patronage intentions are influenced by the opinions of other customers

and social interactions (Islam, Rahman, and Hollebeek 2018).

2.5. Intention to recommend

Research on recommendation intention has been widely explored across various fields, including marketing, healthcare, banking, and tourism. Recommendation intention refers to a behavioral tendency where users are willing to recommend a product or service to others (Cheung and Thadani 2012). Pi and Huang (2011) argue that the intention to recommend products or services to the public is a behavior of customer loyalty and serves as an important measure of it. Customers with recommendation intention usually support the product or service through positive word-of-mouth or favorable reviews (Xu and Gursoy 2020).

In other words, recommendation intention can be conceptualized as traditional WOM, which has long been regarded as an effective marketing tool for acquiring new customers and increasing revenue (Keiningham et al. 2007). Moreover, studies suggest that interpersonal WOM may have a greater influence than electronic WOM in shaping customers' behavioral intentions, enhancing the credibility of the message, and improving customers' attitudes toward the company (Meuter, McCabe, and Curran 2013). Therefore, this study uses recommendation intention as the outcome variable to examine whether customer experiences in the phygital retail environment tend to generate recommendation intention.

3. Research hypotheses hypothesis development

3.1. Conceptual framework

This study has built upon previous research and discusses how in the phyigtal customer experience influences customer engagement and patronage intentions and intention to recommend. The model as Fig. 1.

3.2. Hypotheses development

3.2.1. Customer experience and customer engagement

Numerous studies have demonstrated that customer engagement and experience are closely related (Rasool, Shah, and Tanveer 2021) Positive customer experiences can strengthen the connection between stores and their customers, thereby increasing their engagement with the retailer (Mohd and Omar 2017). Bowden (2009) posits engagement with customers requires a positive customer experience.
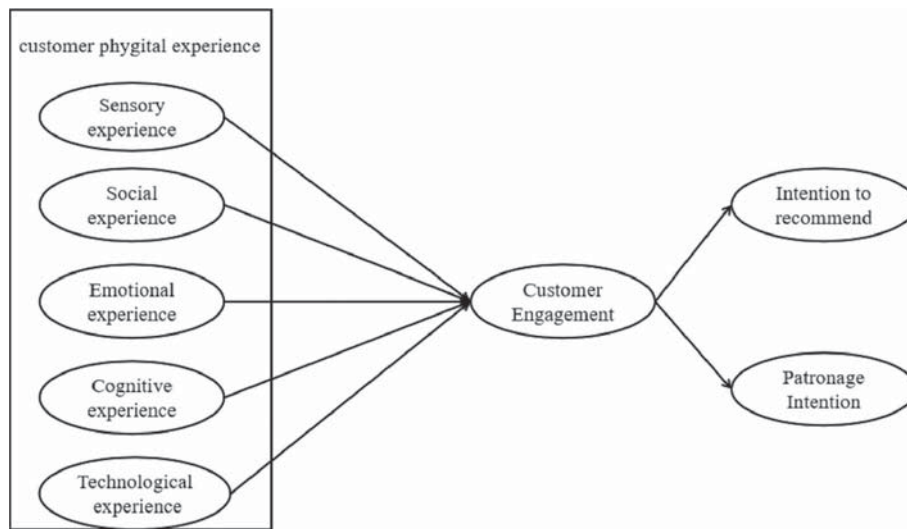
Fig. 1. Research model.

An and Han (2020) found that customer engagement may be greatly increased by designing an excellent purchase experience to optimize hedonic value and enhance happy shopping memories. Pleasant experiences act as stimuli that enhance customer interaction with brands, increasing engagement (Hayes and MacLeod 2007).

Johnson and Barlow (2021) contend that phygital encounters need to shape consumers' ideas of a shopping experience that is both autonomous and independent, but also particularly cozy and emotional. Customers' perceptions of value can be influenced, trust can be built, and the so-called "pain of payment" can be lessened with the help of phygital experiences that are innovative and smooth (Johnson and Barlow 2021).

Customer experience is a holistic process involving both rational and emotional aspects of interacting with products or brands (Ullah, Aimin, and Ahmed 2018). In the emotional dimension of experience, emotional customer experiences elicit affective responses (Méndez et al. 2020). Research indicates that when emotional stimulation is a key consumption goal, sensory experiences positively influence product evaluations (Cohen and Areni 1991). Hultén et al. (2009) proposed the potential positive outcomes of sensory marketing. Customer experience can lead to both emotional and cognitive outcomes of customer interactions with the company (Godovykh and Tasci 2020). Zaid and Patwayati (2021) realized that customer experience, including both emotional and cognitive aspects, positively influences customer engagement.

Positive interactions with store features are anticipated to motivate customers to engage more enthusiastically with the store, actively seek out information related to the store, and grow more inclined to shop because of the opportunity for social engagement (Vivek 2012). Integrating customer experience management into brand strategies can drive positive behavioral and attitudinal intentions, promoting customer satisfaction, trust, and commitment (Saini and Singh 2019). Rasool, Shah, and Islam (2020) analyzed key research themes on customer engagement in the digital age, emphasizing the importance of technology in promoting customer engagement. Their study pointed out that technology-enhanced customer experiences significantly boost customer engagement. The technological aspect of customer experience indirectly influences repeat purchase intentions through customer satisfaction (Rose et al. 2012). We believe that combining physical and digital retail can create memorable shopping experiences, ultimately leading to higher customer engagement with the store. According to these findings, we propose the next hypotheses:

H1a. *Phygital customer cognitive experience positively influences customer engagement.*

H1b. *Phygital customer emotional experience positively influence customer engagement.*

H1c. *Phygital customer social experience positively influence customer engagement.*

H1d. *Phygital customer sensory experience positively influence customer engagement.*

H1e. *Phygital customer technological experience positively influence customer engagement.*

3.2.2. Customer engagement and patronage intention

Many service firms consider customer retention a critical strategic priority (Khan and Rahman 2017). Patronage intention is the most closely related to actual patronage and predicts whether customers will return or transfer stores (Zeithaml, Berry, and Parasuraman 1996). Customer engagement fosters specific behaviors that help form robust and favorable relationships between customers and brands (Van 2019), ultimately influencing patronage intention (Kumar et al. 2024).

According to Groth (2005), consumers who have a good experience with a merchant continue to have a reciprocal relationship. Literature suggests that customer-based brand reviews, as a form of customer engagement, can reduce perceived purchase risk for other customers, thereby influencing their repurchase intention (Zhu and Zhang 2010). Additionally, customer engagement activities offered by a brand are significant drivers of subsequent customer repatronage intentions (Islam et al. 2019). The hypothesis that follows is put out in light of the literature review:

H2. *Customer engagement positively affects patronage intention.*

3.2.3. Customer engagement and intention to recommend

Intention to recommend is a form of behavioral intention. If consumers are happy with the service they encounter, they are more likely to suggest your brand to others (Hennig et al. 2002). Islam and Rahman (2016) contend that engaged customers are more inclined to discuss their experiences, offer feedback, and suggest the product to other potential customers. Furthermore, highly engaged consumers frequently serve as spokespersons, sharing their great experiences with others (Vivek, Beatty, and Morgan 2012).

According to Reichheld (2003), the best predictor of loyalty is intention to refer. Previous studies have shown that customer engagement influences WOM in both offline and online environments (Islam and Rahman 2016). Positive experiences not only allow customers to perceive higher service quality but also encourage them to provide more feedback and suggestions to other customers and retailers (Bendapudi and Leone 2003). Additionally, customers who establish interactive relationships with companies are more likely to participate in collaborative creation, influence and recommendations (Libai et al. 2010).

Consumers depend more heavily on advice and ideas from others who have used such services (Kinard and Capella 2006) and regard such communication more trustworthy than that from the corporation (Zeithaml, Berry, and Parasuraman 1996). Depending on the literature review, following hypothesis can be suggested:

H3. *Customer engagement positively affects Intention to recommend.*

4. Methodology

4.1. Survey design and respondents

This study delves into the customer experience within the phygital retail environment, with a particular focus on Freshippo, which is hailed as China's inaugural phygital retail supermarket chain specializing in fresh produce. Since its inception in Shanghai in 2015, Freshippo has shown remarkable growth, with its store count surpassing 400 by 2024. The unique business model of Freshippo marries physical stores with an online shopping platform, providing high-quality products and a seamless digital consumer experience. By leveraging technology, the model not only integrates online and offline experiences but also enhances supply chain management and utilizes data analysis to meet consumer demands more effectively. To gain a thorough understanding of the multifaceted nature of customer experience, field research was conducted in Shanghai and Beijing. These cities host the highest number of Freshippo stores, offering a rich and varied pool of data.

Data collection was carried out from April 20 to 30, 2024. The research team gathered relevant data through a questionnaire survey. During this process, the team posed a critical screening question to identify the target audience: "Have you visited and made a purchase at a Freshippo in the past six months?" Only those who responds "yes" to this question were considered in the final analysis. The final data set comprised 380 responses. Table 1 describes the sample's attributes.

4.2. Measurement of scale items

For this study, the measurement scales for these factors were contextualized and modified from earlier studies (see Table 3). With the exception of the demographic items, each measuring item was scored using a 5-point Likert scale (1 = strongly disagree; 5 = strongly agree). Sensory experience were measured with five items adapted from Pekovic and Rolland (2020); Cachero and Vázquez (2017); Cognitive elements was measured using four items adapted from (Pekovic and Rolland 2020); emotion elements was measured using a three-item scale based on Pekovic and Rolland (2020); and social experience was measured with six items Pekovic and Rolland

Table 1. Respondents demographic information.

Criterion	Characteristics	Frequency	(%)
Age	under 20s	24	6.30
	21s–30s	199	52.30
	31–40s	76	20.00
	41–50s	40	10.50
	51–60	27	7.10
	over 60s	14	3.70
Education	Under high school	94	24.80
	College	96	25.30
	Bachelor's degree	155	40.80
	Master degree or high	35	9.20
Gender	Male	192	50.50
	Female	188	49.50
Marital	Married	131	34.50
	Not Married	216	56.80
	Others	33	8.70
Monthly income	Less than RMB5000($700)	168	41.68
	RMB5000-8000($700–$1100)	153	37.97
	RMB8000-10000($1100–$1400)	53	13.15
	RMB10000-15000($1400–$2100)	13	3.23
	Above RMB 15000($2100)	16	3.97

Table 2. EFA results.

	Factor							
	1	2	3	4	5	6	7	8
PCX Social4	**.772**	.118	.168	.090	.065	−.002	.022	.155
PCX Social 1	**.764**	.101	.099	.161	.080	.168	.120	.065
PCX Social5	**.742**	.175	.068	.183	.106	.043	.060	−.002
PCX Social6	**.739**	.133	.119	.147	.131	−.026	.065	.062
PCX Social2	**.723**	.141	.145	.099	.034	.069	.150	.093
PCX Social3	**.712**	.122	.154	.155	.167	.198	.020	.052
PCX Sensory2	.118	**.784**	.052	.130	.146	.092	.142	.052
PCX Sensory4	.114	**.774**	.103	.164	.135	.104	.110	.074
PCX Sensory3	.162	**.768**	.152	.185	.057	.049	.143	.050
PCX Sensory1	.209	**.766**	.127	.151	.068	.118	.096	.103
PCX Sensory5	.185	**.755**	.186	.108	.150	.019	.029	.167
PCX Technological3	.133	.064	**.787**	.102	.129	.025	.089	.069
PCX Technological1	.145	.080	**.785**	.125	.080	.062	.010	.043
PCX Technological 5	.128	.130	**.763**	.123	.100	.131	.071	.062
PCX Technological 4	.141	.164	**.746**	.147	.093	.132	.048	.056
PCX Technological2	.134	.137	**.707**	.178	.071	.156	.117	.099
Customer Engagement 4	.223	.123	.077	**.760**	.085	.109	.107	.015
Customer Engagement 2	.173	.148	.135	**.759**	.074	.115	.033	.141
Customer Engagement 5	.173	.189	.179	**.755**	.062	.088	.067	.010
Customer Engagement3	.093	.144	.145	**.751**	.159	.054	.111	.126
Customer Engagement1	.154	.134	.186	**.748**	.144	.115	.091	.090
PCX Cognitive 1	.184	.098	.095	.105	**.789**	.053	.111	.098
PCX Cognitive 2	.110	.129	.070	.077	**.769**	.216	.117	.080
PCX Cognitive 4	.120	.145	.089	.153	**.767**	.181	.161	.088
PCX Cognitive 3	.095	.149	.241	.153	**.741**	.013	.114	.123
PCX Emotional1	.143	.091	.122	.131	.187	**.830**	.070	.111
PCX Emotion3	.061	.122	.161	.120	.150	**.813**	.140	.083
PCX Emotional2	.121	.102	.163	.153	.079	**.731**	.085	.141
IR1	.138	.121	.129	.059	.158	.069	**.797**	.121
IR3	.082	.136	.124	.163	.114	.140	**.797**	.109
IR2	.140	.197	.035	.127	.196	.089	**.781**	.088
Patronage Intention2	.021	.097	.082	.102	.095	.064	.163	**.783**
Patronage Intention3	.159	.148	.139	.087	.119	.147	.016	**.773**
Patronage Intention1	.149	.097	.052	.100	.114	.107	.110	**.768**

Note: PCX: Phygital Customer Experience; IR: Intention to Recommend.

(2020); technological experience was measured with five items Pekovic and Rolland (2020). Customer engagement items were measured with five items Kosiba et al. (2018). Patronage intention measurement from Baker et al. (2002) and Tan, Khan, and Lau (2018) and items measuring intention to recommend were adapted from Prayag et al. (2017).

5. Results

5.1. Common method bias

We examined common method bias in the data using Harman's single-factor test, which is the method frequently employed by researchers (Podsakoff et al. 2003). If the first-factor loading factor explains the majority of the covariance (<50%), it suggests that common method bias is not present. As a result, our study show that the first-factor loading was 31.134% of below the 50%, confirming that common method bias isn't a threat to our research (Podsakoff et al. 2003).

5.2. Measurement model

5.2.1. Exploratory Factor Analysis (EFA)

The EFA was carried out using SPSS 29, with Principal Component Analysis as an extraction method and varimax for the rotation process, as the study preferred non-correlation between each factor. In the factor extraction process, factors were extracted based on a factor loading over 0.6 and an eigenvalue of over 1.0 (Costello and Osborne 2005). The findings of the EFA are shown in Table 2. The KMO test value was .917, and Bartlett's test was significant (p < 0.001). The minimum factor loading for all 34 items was .707, exceeding the limit of 0.6. Therefore, all 34 items were retained in the final analysis.

5.2.2. Confirmatory Factor Analysis (CFA)

Similarly, the result of the CFA showed an acceptable fit (χ^2/df = 1.457, GFI = .883, CFI = .964, TLI = .960, NFI = .892, RMSEA = .035). Table 3 shows the values of the Cronbach's alphas for all constructs varied from .764 to .889, and the composite reliability (CR)ranged from .765 to .889. Similarly, the AVE value for each construct ranged from .521 to .615. The CR values are greater than .70, and the AVE values are exceeding the .50 minimum requirement (Hair et al. 2010). Therefore, the model demonstrates high reliability and convergent validity. Finally, discriminant validity was examined by comparing the square correlations between constructs with their respective AVE (Fornell and Larcker 1981). Table 4 shows that the square roots of the AVE were higher than the correlation for the constructs. Thus, the discriminant validity is confirmed.

5.3. Hypotheses testing

Table 5 presents the path coefficients of the structural analysis results and the overall model of the hypothesized relationships. The proposed model demonstrates adequate overall fit: χ^2/df = 1.637 (p < .00), GFI = .870, CFI = .949, NFI = .880, IFI = .950, TLI = .944, and RMSEA = .041. To test the research hypotheses, t-values, p-values, and path coefficients were used. According to the results of the direct pathways hypothesis testing (see Table 5), every hypothesis was supported. Thus, customer sensory experience (β = .231, t = 3.834, p < .01), social experience (β = .226, t = 2.856, p < .01), cognitive (β = .144, t = 2.429, p < .01) emotion (β = .130, t = 2.119, p < .01) and technological (β = .186, t = 3.102, p < .01), were found to have a favorable effect on customer engagement, confirming H1a, H1b, H1c, H1d and H1e. Additionally, customer engagement had a significant effect on customers' patronage intention (β = .434, t = 6.700, p < .01) and recommendation intentions (β = .464, t = −7.466, p < .01); this supported H2 and H3.

6. Discussion and implications

6.1. Discussion

As the retail industry continues to evolve, customer experience has become a critical factor for business success. However, customer behavior and decision-making processes in a phygital retail experiences are integrated and likely more complex than in purely physical or digital settings. Therefore, we measured the relationship between new retail customer experience and customer behavioral intentions across different dimensions.

Our research findings indicate that in a phygital retail environment, consumers' cognitive, emotional, technological, sensory, and social experiences play significant roles in customer engagement. Among these, sensory and social experiences have the greatest effect on customer engagement. This supports the results of Zaheer and Rizwan (2022), who noted that sensory and social experiences significantly enhance customer engagement. Also, there is a great effect of technology experiences on consumer engagement. Additionally, Verhoef et al. (2009) supports our findings, demonstrating that technology and social interaction significantly enhance customer experience and engagement in a multichannel retail environment. Our results, emotional and cognitive experiences have the least effect on customer engagement.

Furthermore, our results show that patronage intention and recommendation intention are both

Table 3. Confirmatory factor analysis.

Construct	Item	Factor loading	C.R.	AVE	α
PCE Sensory	1. Browsing the Freshippo using the technology made a strong impression on my visual sense or other senses.	.799			
	2. Freshippo appeals to engage my senses.	.773	.889	.615	.889
	3. Freshippo integrates all parts into a harmonic whole.	.789			
	4. The cleanliness of Freshippo draws me in.	.783			
	5. Freshippo smells good.	.776			
PCE Social	1. In Freshippo, the selfcheckout's interface is user-friendly	.787			
	2. In Freshippo, the system respects my preferences	.717			
	3. In Freshippo, the system's behavior instills confidene in me.	.754	.883	.556	.882
	4. Freshippo provides accurate information.	.745			
	5. Freshippo's system show interest in addressing my needs.	.743			
	6. Freshippo's system provides reliable service.	.726			
PCE Emotion	1. I get a great feeling in Freshippo.	.786			
	2. I feel happy in Freshippo.	.772	.815	.594	.830
	3. I feel enthusiastic in Freshippo.	.754			
PCE Cognitive	1. Freshippo's quality is simple to assess.	.757			
	2. I can rely on this Freshippo.	.764			
	3. Freshippo offers a quick product delivery method.	.743	.852	.590	.852
	4. Freshippo offers a quick check-out process.	.808			
PCE Technological	1. The technology ofFreshippo provides personalized information.	.736			
	2. The technology of Freshippo provides enough freedom of mobility.	.751			
	3. The technology of Freshippoallows complete transactions quickly.	.747	.868	.570	.868
	4. The technology of Freshippo is easy to use.	.779			
	5. The technology of Freshippo is reliable.	.758			
Customer Engagement	1. Pay more attention to Freshippo services.	.786			
	2. Intention to learn more about Freshippo services.	.772			
	3. The positive feeling while trying Freshippo services	.754	.878	.591	.878
	4. Thinking before buying Freshippo products.	.758			
	5. Freshippo services stimulate my interest.	.772			
Patronage intention	1. I will continue my patronage to Freshippo.	.765			
	2. When I go supermarkets, I like to go to Freshippo.	.684			
	3. I would like to purchase products from the Freshippo in the future.	.714	.765	.521	.764
Intention to Recommend	1. I will recommend others to go Freshippo.	.755			
	2. I will say positive things about Freshippo to others.	.801	.822	.606	.822
	3. I will encourage friends and relatives to Freshippo.	.778			

Table 4. AVE and correlations matrix.

Variables	1	2	3	4	5	6	7	8
Sensory	.784**							
PCE Social	.431*	.746**						
PCE Emotion	.324*	.320*	.771**					
PCE Cognitive	.389*	.368*	.395*	.768**				
PCE Technological	.379*	.400*	.373*	.358*	.755**			
CE	.445*	.449*	.373*	.380*	.423*	.769**		
PI	.334*	.309*	.337*	.342*	.286*	.309*	.722**	
IR	.394*	.329*	.337*	.422*	.297*	.345*	.332*	.778**

Note: **The values on the diagonal represent the AVEs' square roots; *p < .05.
PCX: Phygital Customer Experience; CE: Customer Engagement; PI: Patronage Intention; IR: Intention to Recommend.

Table 5. Hypotheses testing results.

	Structural path	β	S.E.	C. R.	p-value	Results
H1-1	CE Sensory → Customer Engagement	.231	.056	3.834	***	Supported
H1-2	CE Social → Customer Engagement	.226	.060	3.716	***	Supported
H1-3	CE Emotion → Customer Engagement	.144	.051	2.429	.015	Supported
H1-4	CE Cognitive → Customer Engagement	.130	.052	2.119	.034	Supported
H1-5	CE Technological → Customer Engagement	.186	.057	3.102	.002	Supported
H2	Customer Engagement → Patronage intention	.434	.064	6.700	***	Supported
H3	Customer Engagement → Intention to Recommend	.464	.066	7.466	***	Supported

$\chi^2/\text{df} = 1.637$, GFI $= .870$, CFI $= .949$, NFI $= .880$, IFI $= .950$, TLI $= .944$, RMSEA $= .041$.
***$p < .001$.

highly impacted by customer engagement. Specifically, customers with higher engagement levels are more probably to visit and suggest store to others. This confirms the results of Vivek, Beatty, and Morgan (2012) pointed out that high levels of customer engagement lead to stronger patronage intentions. Furthermore, Brodie et al. (2011) discovered a direct correlation between recommendation intention and customer engagement. In order to keep their views and behaviors consistent, consumers are more likely to promote companies that they strongly identify with and are content with, according to the cognitive consistency theory.

In particular, our results point out that recommendation intention is more impacted by customer engagement than patronage intention. The reason might be that in a phygital retail environment, customers' experiences are often shared through social media and WOM. Positive experiences from highly engaged consumers are more likely to be shared, thereby influencing others' purchasing decisions. This social influence amplifies the recommendation intention.

In summary, our study, by analyzing different dimensions of customer experience in a phygital retail environment, reveals the impact of various experiential factors on customer engagement and behavioral intentions. These findings not only enrich the existing literature but also provide empirical evidence for businesses to optimize customer experience and enhance customer engagement in a phygital retail environment.

6.2. Theoretical implications

This study focuses on the connections among the following five customer experience dimensions, customer engagement, and customer behavior, contributing significantly to both theory and practice. In a setting of phygital retail, this research enriches the knowledge on customer experience marketing. Previous studies have lacked exploration of the association between customer experience and engagement in the phygital retail environment, hindering a comprehensive understanding of this topic. This study demonstrates that customer behavior is influenced by customer experience, urging scholars and practitioners to reassess customer experience in the new retail context.

Existing research often focuses on isolated aspects of customer experience, overlooking the multifaceted nature of these experiences and their varied impacts. Earlier studies have underscored the importance for businesses to map the entire experience process (Lusch et al. 2007). This study emphasizes the crucial function of customer experience in encouraging customer engagement. These findings not only support established consumer behavior theories, but also provide new insights into how varied customer experiences might influence involvement via several pathways. The findings of this study further enhance the existing literature on customer experience.

The research also found that customer engagement positively influences patronage intentions and recommendation intentions. This finding provides a theoretical basis for understanding how customer engagement translates into customer loyalty and word-of-mouth promotion. It aligns with social exchange theory, where customer investment in a brand translates into positive promotional behavior. Moreover, this finding encourages businesses to focus on the strategic design of customer engagement to enhance recommendation intentions. By strategically enhancing customer engagement, businesses can improve brand marketing effectiveness and expand their customer base. This involves creating memorable sensory and social experiences, as well as leveraging technology and cognitive engagement to build strong emotional connections with customers.

6.3. Managerial implications

This study provides practical and strategic insights for retail industry managers, illustrating how many parts of the customer experience can attract customers and increase their intent to visit and recommend. This study offers managers a solid foundation for comprehending the complicated concept of customer experience (Tasci and Milman 2019). Because phygital

retail allows customers to interact with both the real and digital worlds, the study is crucial the five aspects of the phygital retail customer experience. This understanding is vital for the retail business, as consumer engagement and perception play a key role in determining company success.

Sensory and social experiences have the biggest effects on these kinds of experiences. According to Gensler et al. (2013), marketers operating in the physical retail space ought to prioritize in-store social interactions as a means of augmenting the customer experience. Retail managers can greatly enhance the social experience of customers by, for instance, optimizing self-checkout interfaces, presenting correct information, enhancing system reliability, and providing tailored services (DeLone and McLean 2003). Furthermore, marketers ought to concentrate on drawing clients with tactile, visual, and other sensory merchandise (Roy et al. 2022). The results show that offering smooth online and physical interactions, tailored services, and cutting-edge technical applications can increase consumer engagement and impact their intention to return and refer others. Such emerging technologies would greatly improve customer service and lead to positive customer experiences. By analyzing the impact of technological experience on customer engagement, companies can more accurately apply and improve technologies, reducing negative experiences related to technology and increasing customer acceptance and willingness to use these technologies.

Avoiding negative emotions and creating positive emotions should constitute a fundamental priority for every successful company (Batat 2022), ensuring that customers do not experience negative emotions during their journey. Combining these roles will help customers better engage and eventually guarantee the development of phygital retail stores through customer patronage.

These insights can help companies better understand how different aspects of customer experience affect customer engagement, thereby optimizing the management of customer experience strategies to enhance customer loyalty. Empirical evidence supports new retail businesses in better integrating online and offline resources to enhance overall competitiveness and market performance. This integration allows companies to utilize various resources more effectively in their operations, enhancing market competitiveness.

6.4. Limitations and future research

This study presents valuable information about phygital retail experiences; however, it has several drawbacks. Firstly, in phygital retail customer experi-

ences, customers interact with the brand both online and offline. However, this study only focuses on offline technology-driven experiences. To fully understand customer behavior, including their patronage and recommendation intentions, we should incorporate both online and offline experiences into our research. This approach not only offer a more comprehensive view of customer experience while also reveal how the interaction between different channels affects overall customer satisfaction and loyalty.

Additionally, we categorized customer experience into five dimensions. However, because retail experiences depend not only on factors controlled by the retailer but also on external factors such as the impact of other customers and the intention of shopping (Verhoef et al. 2009), future research could explore whether these factors play a role in attracting customers in a phygital retail environment.

While we often emphasize the positive effects of technology, various technologies can also negatively impact consumers, such as causing stress and information overload. Future research should explore how these negative impacts affect customer satisfaction and overall experience. Specifically, studies should focus on how technology induces stress in different usage environments and whether this stress diminishes the positive effects of technology.

Finally, the study systematically investigates the effect of customer experience on engagement and recommendation intentions, but the supermarket retail environment is only one of many service contexts. Future research could extend to other settings, such as banks, restaurants, and museums, to validate and deepen the findings of this study. In these different environments, the components of customer experience may vary, and studying these differences can provide businesses with more targeted customer experience optimization strategies. By doing so, businesses can effectively enhance customer satisfaction and loyalty across different service environments, thereby achieving better market performance and competitive advantage.

Conflict of interest

References

Aggarwal, N., B. S. Saini, and S. Gupta (2023), "Role of Artificial Intelligence Techniques and Neuroimaging Modalities in Detection of Parkinson's Disease: A Systematic Review," *Cognitive Computation*, 1–38.

Akmermer, B. (2022), "The Phygital Experiential Marketing Practices: The Conceptual Framework and Applications for Tourism

Industry," in Handbook of Research on Interdisciplinary Reflections of Contemporary Experiential Marketing Practices. IGI Global. 289–309.

An, M. A. and S. L. Han (2020), "Effects of Experiential Motivation and Customer Engagement on Customer Value Creation: Analysis of Psychological Process in the Experience-based Retail Environment," *Journal of Business Research*, 120, 389–397.

Bagdare, S. and R. Jain (2013), "Measuring Retail Customer Experience," *International Journal of Retail & Distribution Management*, 41 (10), 790–804.

Baker, J., A. Parasuraman, D. Grewal, and G. B. Voss (2002), "The Influence of Multiple Store Environment Cues on Perceived Merchandise Value and Patronage Intentions," *Journal of Marketing*, 66 (2), 120–141.

Ballina, F. J., L. Valdes, and E. Del Valle (2019), "The Phygital Experience in the Smart Tourism Destination," *International Journal of Tourism Cities*, 5 (4), 656–671.

Banik, S. (2021), "Exploring the Involvement-patronage Link in the Phygital Retail Experiences," *Journal of Retailing and Consumer Services*, 63, 102739. https://doi.org/10.1016/j.jretconser.2021.102739

Banik, S. and Y. Gao (2023), "Exploring the Hedonic Factors Affecting Customer Experiences in Phygital Retailing," *Journal of Retailing and Consumer Services*, 70, 103147.

Batat, W. (2019), Experiential Marketing: Consumer Behavior, Customer Experience and the 7Es. Routledge.

Batat, W. (2022), Strategies for the Digital Customer Experience: Connecting Customers with Brands in the Phygital Age. Edward Elgar Publishing.

Bendapudi, N. and R. P. Leone (2003), "Psychological Implications of Customer Participation in Co-production," *Journal of Marketing*, 67 (1), 14–28.

Biedenbach, G. and A. Marell (2010), "The Impact of Customer Experience on Brand Equity in a Business-to-business Services Setting," *Journal of Brand Management*, 17, 446–458.

Bitner, M. J. (1992), "Servicescapes: The Impact of Physical Surroundings on Customers and Employees," *Journal of marketing*, 56 (2), 57–71.

Brodie, R. J., L. D. Hollebeek, B. Jurić, and A. Ilić (2011), "Customer Engagement: Conceptual Domain, Fundamental Propositions, and Implications for Research," *Journal of Service Research*, 14 (3), 252–271.

Brun, I., L. Rajaobelina, L. Ricard, and B. Berthiaume (2017), "Impact of Customer Experience on Loyalty: A Multichannel Examination," *The Service Industries Journal*, 37 (5–6), 317–340.

Cachero-Martínez, S. and R. Vázquez-Casielles (2017), "Living Positive Experiences in Store: How It Influences Shopping Experience Value and Satisfaction?," *Journal of Business Economics and Management*, 18 (3), 537–553.

Carù, A. and B. Cova (2003), "Revisiting Consumption Experience: A More Humble but Complete View of the Concept," *Marketing Theory*, 3 (2), 267–286.

Chang, K. C. and Y. S. Cheng (2023), "How Sensory Perceptions and Sensory Brand Experience Influence Customer Behavioral Intentions in the Context of Cartoon-themed Restaurants," *International Journal of Hospitality Management*, 115, 103604.

Cheung, C. M. and D. R. Thadani (2012), "The Impact of Electronic Word-of-Mouth Communication: A Literature Analysis and Integrative Model," *Decision Support Systems*, 54 (1), 461–470.

Cohen, J. B. and C. S. Areni (1991), Affect and Consumer Behavior. Prentice-Hall.

Costello, A. B. and J. W. Osborne (2005), "Best Practices in Exploratory Factor Analysis: Four Recommendations for Getting the Most from Your Analysis," *Practical Assess Res & Eval*, 10 (7), 173–178.

DeLone, W. H. and E. R. McLean (2003), "The DeLone and McLean model of Information Systems Success: A Ten-year Update," *Journal of Management Information Systems*, 19 (4), 9–30.

Dua, T. (2015). The North Face Brings Virtual Reality to Retail. https://digiday.com/marketing/north-face-brings-virtual-reality-retail/

Flavián, C., S. Ibáñez-Sánchez, and C. Orús (2019), "The Impact of Virtual, Augmented and Mixed Reality Technologies on the Customer Experience," *Journal of Business Research*, 100, 547–560.

Fornell, C. and D. F. Larcker (1981), "Evaluating Structural Equation Models with Unobservable Variables and Measurement Error," *Journal of Marketing Research*, 18 (1), 39–50.

Gao, W., H. Fan, W. Li, and H. Wang (2021), "Crafting the Customer Experience in Omnichannel Contexts: The Role of Channel Integration," *Journal of Business Research*, 126, 12–22.

Gensler, S., F. Völckner, Y. Liu-Thompkins, and C. Wiertz (2013), "Managing Brands in the Social Media Environment," *Journal of Interactive Marketing*, 27 (4), 242–256.

Gentile, C., N. Spiller, and G. Noci (2007), "How to Sustain the Customer Experience: An Overview of Experience Components that Co-create Value with the Customer," *European Management Journal*, 25 (5), 395–410.

Godovykh, M. and A. D. Tasci (2020), "Customer Experience in Tourism: A Review of Definitions, Components, and Measurements," *Tourism Management Perspectives*, 35, 100694.

Groth, M. (2005), "Customers as Good Soldiers: Examining Citizenship Behaviors in Internet Service Deliveries," *Journal of Management*, 31 (1), 7–27.

Grundey, D. (2008), "Experiential Marketing vs. Traditional Marketing: Creating Rational and Emotional Liaisons with Consumers," *The Romanian Economic Journal*, 29 (3), 133–151.

Hair, J. F., W. C. Black, B. J. Babin, and R. E. Anderson (2010). Multivariate Data Analysis, 7th ed. Prentice Hall.

Hayes, D. and N. MacLeod (2007), "Packaging Places: Designing Heritage Trails Using an Experience Economy Perspective to Maximize Visitor Engagement," *Journal of Vacation Marketing*, 13 (1), 45–58.

Hermes, A. and R. Riedl (2021), "Influence of Personality Traits on Choice of Retail Purchasing Channel: Literature Review and Research Agenda," *Journal of Theoretical and Applied Electronic Commerce Research*, 16 (7), 3299–3320.

Hennig-Thurau, T., K. P. Gwinner, and D. D. Gremler (2002), "Understanding Relationship Marketing Outcomes: An Integration of Relational Benefits and Relationship Quality," *Journal of Service Research*, 4 (3), 230–247.

Hollebeek, L. D. and T. Chen (2014), "Exploring Positively-versus Negatively-valenced Brand Engagement: A Conceptual Model," *Journal of Product & Brand Management*, 23 (1), 62–74.

Homburg, C., D. Jozić, and C. Kuehnl (2017), "Customer Experience Management: toward Implementing an Evolving Marketing Concept," *Journal of the Academy of Marketing Science*, 45, 377–401.

Honora, A., K. Y. Wang, and W. H. Chih (2024), "The Role of Customer Forgiveness and Perceived Justice in Restoring Relationships with Customers," *Service Business*, 1–31.

Hsieh, S. H. and A. Chang (2016), "The Psychological Mechanism of Brand Co-creation Engagement," *Journal of Interactive Marketing*, 33 (1), 13–26.

Huang, C. C. and S. E. Chen (2022), "Establishing and Deepening Brand Loyalty through Brand Experience and Customer Engagement: Evidence from Taiwan's Chain Restaurants," *Journal of Quality Assurance in Hospitality & Tourism*, 23 (1), 217–239.

Hultén, B., N. Broweus, M. Van Dijk, B. Hultén, N. Broweus, and M. van Dijk (2009), "What is Sensory Marketing?," *Palgrave Macmillan UK*, 1–23.

Islam, J. U. and Z. Rahman (2016), "The Transpiring Journey of Customer Engagement Research in Marketing: A systematic Review of the Past Decade," *Management Decision*, 54 (8), 2008–2034.

Islam, J. U., L. D. Hollebeek, Z. Rahman, I. Khan, and A. Rasool (2019), "Customer Engagement in the Service Context: An Empirical Investigation of the Construct, its Antecedents and Consequences," *Journal of Retailing and Consumer Services*, 50, 277–285.

Islam, J. U., Z. Rahman, and L. D. Hollebeek (2018), "Consumer Engagement in Online Brand Communities: A Solicitation of Congruity Theory," *Internet Research*, 28 (1), 23–45.

Johnson, M. and R. Barlow (2021), "Defining the Phygital Marketing Advantage," *Journal of Theoretical and Applied Electronic Commerce Research*, 16 (6), 2365–2385.

Keiningham, T. L., B. Cooil, L. Aksoy, T. W. Andreassen, and J. Weiner (2007), "The Value of Different Customer Satisfaction and Loyalty Metrics in Predicting Customer Retention, Recommendation, and Share-of-wallet," *Managing Service Quality: An International Journal*, 17 (4), 361–384.

Khan, I. and Z. Rahman (2017), "Development of a Scale to Measure Hotel Brand Experiences," *International Journal of Contemporary Hospitality Management*, 29 (1), 268–287.

Kinard, B. R. and M. L. Capella (2006), "Relationship Marketing: The Influence of Consumer Involvement on Perceived Service Benefits," *Journal of Services Marketing*, 20 (6), 359–368.

Kosiba, J. P. B., H. Boateng, A. F. O. Amartey, R. O. Boakye, and R. Hinson (2018), "Examining Customer Engagement and Brand Loyalty in Retail Banking: The Trustworthiness Influence," *International Journal of Retail & Distribution Management*, 46 (8), 764–779.

Kranzbühler, A. M., M. H. Kleijnen, R. E. Morgan, and M. Teerling (2018), "The Multilevel Nature of Customer Experience Research: An Integrative Review and Research Agenda," *International Journal of Management Reviews*, 20 (2), 433–456.

Kumar, J., S. Rana, G. Rani, and V. Rani (2024), "How Phygital Customers' Experience Transforms the Retail Banking Sector? Examining Customer Engagement and Patronage Intentions," *Competitiveness Review: An International Business Journal*, 34 (1), 92–106.

Kumar, V., L. Aksoy, B. Donkers, R. Venkatesan, T. Wiesel, and S. Tillmanns (2010), "Undervalued or Overvalued Customers: Capturing Total Customer Engagement Value," *Journal of Service Research*, 13 (3), 297–310.

Laaksonen, M. (1993), "Retail Patronage Dynamics: Learning about Daily Shopping Behavior in Contexts of Changing Retail Structures," *Journal of Business Research*, 28 (1–2), 3–174.

Lawry, C. A. (2022), "Blurring Luxury: The Mediating Role of Self-gifting in Consumer Acceptance of Phygital Shopping Experiences," *International Journal of Advertising*, 41 (4), 796–822.

Lemon, K. N. and P. C. Verhoef (2016), "Understanding Customer Experience throughout the Customer Journey," *Journal of Marketing*, 80 (6), 69–96.

Libai, B., R. Bolton, M. S. Bügel, K. De Ruyter, O. Götz, H. Risselada, and A. T. Stephen (2010), "Customer-to-customer Interactions: Broadening the Scope of Word of Mouth Research," *Journal of Service Research*, 13 (3), 267–282.

Lipkin, M. (2016), "Customer Experience Formation in Today's Service Landscape," *Journal of Service Management*, 27 (5), 678–703.

Lusch, R. F., S. L. Vargo, and M. O'brien (2007), "Competing through Service: Insights from Service-dominant Logic," *Journal of Retailing*, 83 (1), 5–18.

Méndez, A. M. D., Z. A. Jiménez, Y. A. Izquierdo, and R. J. J. Blazquez (2020), "Customer Experience and Satisfaction in Private Insurance Web Areas," *Frontiers in Psychology*, 11, 2591.

McCarthy, J. and P. Wright (2004), Technology as Experience. The MIT Press.

Mele, C., I. Di Bernardo, A. Ranieri, and T. Russo Spena (2024), "Phygital Customer Journey: A Practice-Based Approach," *Qualitative Market Research: An International Journal*, 27 (3), 388–412.

Mele, C., T. Russo-Spena, M. Tregua, and C. C. Amitrano (2021), "The Millennial Customer Journey: A Phygital Mapping of Emotional, Behavioural, and Social Experiences," *Journal of Consumer Marketing*, 38 (4), 420–433.

Meuter, M. L., D. B. McCabe, and J. M. Curran (2013), "Electronic Word-of-Mouth Versus Interpersonal Word-of-mouth: Are all Forms of Word-of-mouth Equally Influential?," *Services Marketing Quarterly*, 34 (3), 240–256.

Mohd, R. S. and N. A. Omar (2017), "Exploring the Influence of Store Attributes on Customer Experience and Customer Engagement," *International Journal of Retail & Distribution Management*, 45 (11), 1138–1158.

Mollen, A. and H. Wilson (2010), "Engagement, Telepresence and Interactivity in Online Consumer Experience: Reconciling Scholastic and Managerial Perspectives," *Journal of Business Research*, 63 (9–10), 919–925.

Molinillo, S., R. Aguilar-Illescas, R. Anaya-Sanchez, and E. Carvajal-Trujillo (2022), "The Customer Retail App Experience: Implications for Customer Loyalty," *Journal of Retailing and Consumer Services*, 65, 102842.

Nilsen, I. Q. (2022). China Retail Market Review and Outlook in 2022. http://www.199it.com/archives/1569809.html

Pangarkar, A., V. Arora, and Y. Shukla (2022), "Exploring Phygital Omnichannel Luxury Retailing for Immersive Customer Experience: The Role of Rapport and Social Engagement," *Journal of Retailing and Consumer Services*, 68. https://doi.org/10.1016/j.jretconser.2022.103001

Pantano, E. (2016), "Engaging Consumer through the Storefront: Evidences from Integrating Interactive Technologies," *Journal of Retailing and Consumer Services*, 28, 149–154.

Pan, Y. and G. M. Zinkhan (2006), "Determinants of Retail Patronage: A Meta-Analytical Perspective," *Journal of Retailing*, 82 (3), 229–243.

Pekovic, S. and S. Rolland (2020), "Recipes for Achieving Customer Loyalty: A Qualitative Comparative Analysis of the Dimensions of Customer Experience," *Journal of Retailing and Consumer Services*, 56, 102171.

Petzer, D. J. and E. Van Tonder (2019), "Loyalty Intentions and Selected Relationship Quality Constructs: The Mediating Effect of Customer Engagement," *International Journal of Quality & Reliability Management*, 36 (4), 601–619.

Pi, W. P. and H. H. Huang (2011), "Effects of Promotion on Relationship Quality and Customer Loyalty in the Airline Industry: The Relationship Marketing Approach," *African Journal of Business Management*, 5 (11), 4403.

Podsakoff, P. M., S. B. MacKenzie, J. Y. Lee, and N. P. Podsakoff (2003), "Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies," *Journal of Applied Psychology*, 88 (5), 879.

Prayag, G., S. Hosany, B. Muskat, and G. Del Chiappa (2017), "Understanding the Relationships between Tourists' Emotional Experiences, Perceived overall Image, Satisfaction, and Intention to Recommend," *Journal of Travel Research*, 56 (1), 41–54.

Prentice, C., X. Wang, and S. M. C. Loureiro (2019), "The Influence of Brand Experience and Service Quality on Customer Engagement," *Journal of Retailing and Consumer Services*, 50, 50–59.

Prestini, S. and R. Sebastiani (2021), "Embracing Consumer Ambivalence in the Luxury Shopping Experience," *Journal of Consumer Behaviour*, 20 (5), 1243–1268.

Puntoni, S., R. W. Reczek, M. Giesler, and S. Botti (2021), "Consumers and Artificial Intelligence: An Experiential Perspective," *Journal of Marketing*, 85 (1), 131–151.

Rasool, A., F. A. Shah, and J. U. Islam (2020), "Customer Engagement in the Digital Age: A Review and Research Agenda," *Current Opinion in Psychology*, 36, 96–100.

Rasool, A., F. A. Shah, and M. Tanveer (2021), "Relational Dynamics between Customer Engagement, Brand Experience, and Customer Loyalty: An Empirical Investigation," *Journal of Internet Commerce*, 20 (3), 273–292.

Reichheld, F. F. (2003), "The One Number You Need to Grow," *Harvard Business Review*, 81 (12), 46–55.

Reynolds, J. and M. Sundström (2014), "Digitalisation, Retail Transformation and Change: What Will European Consumers Want from Their Future Shopping Centre Experience?," in The 4th Nordic Retail and Wholesale Conference Hosted by Center for Retailing. Stockholm School of Economics, 5–6.

Rose, S., M. Clark, P. Samouel, and N. Hair (2012), "Online Customer Experience in E-retailing: An Empirical Model of Antecedents and Outcomes," *Journal of Retailing*, 88 (2), 308–322.

Roy, S. K., R. L. Gruner, and J. Guo (2022), "Exploring Customer Experience, Commitment, and Engagement Behaviours," *Journal of Strategic Marketing*, 30 (1), 45–68.

Saini, S. and J. Singh (2019), "Cultivating Emotional Branding through Customer Experience Management: From the Holistic Experience Perspective," in Brand Culture and Identity: Concepts, Methodologies, Tools, and Applications. IGI Global. 1346–1361

Schmitt, B. (1999), "Experiential Marketing," *Journal of Marketing Management*, 15 (1–3), 53–67.

Stein, A. and B. Ramaseshan (2016), "Towards the Identification of Customer Experience Touch Point Elements," *Journal of Retailing and Consumer Services*, 30, 8–19.

Tan, B. C., N. Khan, and T. C. Lau (2018), "Investigating the Determinants of Green Restaurant Patronage Intention," *Social Responsibility Journal*, 14 (3), 469–484.

Tasci, A. D. and A. Milman (2019), "Exploring Experiential Consumption Dimensions in the Theme Park Context," *Current Issues in Tourism*, 22 (7), 853–876.

Ting, D. H., A. Z. Abbasi, and S. Ahmed (2021), "Examining the Mediating Role of Social Interactivity between Customer Engagement and Brand Loyalty," *Asia Pacific Journal of Marketing and Logistics*, 33 (5), 1139–1158.

Touni, R., W. G. Kim, H. M. Choi, and M. A. Ali (2020), "Antecedents and an Outcome of Customer Engagement with Hotel Brand Community on Facebook," *Journal of Hospitality & Tourism Research*, 44 (2), 278–299.

Ullah, A., W. Aimin, and M. Ahmed (2018), "Smart Automation, Customer Experience and Customer Engagement in Electric Vehicles," *Sustainability*, 10 (5), 1350.

Van Doorn, J., K. N. Lemon, V. Mittal, S. Nass, D. Pick, P. Pirner, and P. C. Verhoef (2010), "Customer engagement behavior: Theoretical Foundations and Research Directions," *Journal of Service Research*, 13 (3), 253–266.

Van, T. B. (2019), The role and opportunities of Phygital in the Digital Omni-Channel Strategy. Louvain School of Management.

Verhoef, P. C., K. N. Lemon, A. Parasuraman, A. Roggeveen, M. Tsiros, and L. A. Schlesinger (2009), "Customer Experience Creation: Determinants, Dynamics and Management strategies," *Journal of Retailing*, 85 (1), 31–41.

Vivek, S. D., S. E. Beatty, and R. M. Morgan (2012), "Customer Engagement: Exploring Customer Relationships beyond Purchase," *Journal of Marketing Theory and Practice*, 20 (2), 122–146.

Wakefield, K. L. and J. Blodgett (2016), "Retrospective: The Importance of Servicescapes in Leisure Service Settings," *Journal of Services Marketing*, 30 (7), 686–691.

Xu, X. and D. Gursoy (2020), "Exploring the Relationship between Servicescape, Place Attachment, and Intention to Recommend Accommodations Marketed through Sharing Economy Platforms," *Journal of Travel & Tourism Marketing*, 37 (4), 429–446.

Zaheer, N. and M. Rizwan (2022), "Engaging the Customers through Social Mobile Application Experience," *Business Review*, 17 (1), 69–84.

Zaid, S. and P. Patwayati (2021), "Impact of Customer Experience and Customer Engagement on Satisfaction and Loyalty: A Case Study in Indonesia," *The Journal of Asian Finance, Economics and Business*, 8 (4), 983–992.

Zeithaml, V. A., L. L. Berry, and A. Parasuraman (1996), "The Behavioral Consequences of Service Quality," *Journal of Marketing*, 60 (2), 31–46.

Zhu, F. and X. Zhang (2010), "Impact of Online Consumer Reviews on Sales: The Moderating Role of Product and Consumer Characteristics," *Journal of Marketing*, 74 (2), 133–148.