



Phygital marketing strategies and consumer engagement: Bridging the gap between physical and digital retail experiences

Dr. J Umadevi

Head (i/c), Department of Commerce (A&F), SRMASC, Kanchipuram, Tamil Nadu, India

Abstract

The integration of physical and digital channels, termed integrated physical-digital marketing, has become a planned imperative for retailers seeking to deliver smooth, high-value consumer experiences. This study examines the impact of integrated physical-digital marketing strategies on customer interaction and involvement within the Indian retail sector. Using a descriptive study conceptual model, data were collected from 100 respondents through a structured questionnaire administered both digital and in-store. Key variables measured included in-store digital experience, digital-in-store integration, personalization, and speed and convenience. The results show strong positive correlations between all dimensions of integrated physical-digital marketing and customer interaction and involvement, with speed and convenience ($r = 0.74$) and in-store digital experience ($r = 0.72$) emerging as the most influential factors. The results underscore the significance of integrating technology-enhanced in-store experiences with efficient, consistent digital touchpoints to foster engagement, satisfaction, and loyalty. The study reinforces Service-Dominant Logic, Customer Experience, and Technology Acceptance Model viewpoints, offering both theoretical and managerial implications for retailers.

Keywords: Phygital marketing, Consumer engagement, Omnichannel retail, In-store digital experience, Service-Dominant Logic, Technology Acceptance Model

Introduction

The rapid transformation of the retail sector within the digital economy has progressively blurred the distinction between physical and digital commerce, leading to the emergence of integrated physical-digital marketing—a strategic convergence of in-store and online touchpoints designed to deliver unified, high-value customer experiences. Enabled by technological advancements such as augmented reality (AR), virtual reality (VR), the Internet of Things (IoT), and AI-driven personalization, retailers are now able to combine the efficiency and convenience of e-commerce with the experiential richness of brick-and-mortar environments. In today's highly competitive market, consumers move seamlessly across channels, expecting consistent brand communication, instant access to product information, and personalized engagement at every stage of the purchase journey.

Although the adoption of phygital strategies is accelerating, many retailers face challenges in designing experiences that extend beyond technological novelty and generate measurable business outcomes through meaningful customer interaction and engagement. Previous research has examined omnichannel retailing, technological adoption, and experiential marketing as separate domains; however, limited empirical evidence explains how integrated physical-digital marketing strategies directly influence customer interaction and involvement outcomes such as brand loyalty, purchase intention, and customer lifetime value. Addressing this gap is essential for retailers seeking to avoid fragmented experiences that may reduce customer satisfaction, weaken competitive advantage, and negatively impact revenue potential in an increasingly experience-driven economy.

Objectives

- This study seeks to:
1. Identify the core components of integrated physical-digital marketing strategies within the retail sector.
 2. Evaluate the influence of phygital experiences on cognitive, emotional, and behavioral dimensions of customer interaction and involvement.
 3. Examine the technological, experiential, and organizational factors that mediate or moderate the phygital-engagement relationship.
 4. Recommend planned approaches for retailers to design and optimize phygital experiences to enhance brand equity and drive sustainable revenue growth.

Brief Theoretical Framing

The study is anchored in the Service-Dominant Logic (SDL), which positions value as co-created through dynamic interactions between retailers and consumers across integrated touchpoints. It also leverages the Customer Experience (CX) Framework to capture the multidimensional nature of engagement — spanning sensory, affective, cognitive, and social dimensions — within phygital environments. Furthermore, the Technology Acceptance Model (TAM) provides a lens to understand how perceived ease of use and usefulness of phygital technologies influence consumer responses and adoption behaviors. Integrating these theoretical viewpoints enables a comprehensive understanding of how integrated physical-digital marketing strategies can strengthen customer relationships and deliver superior commercial outcomes in the modern retail landscape.

Literature Review

Phygital marketing, which refers to the seamless fusion of physical and digital customer touchpoints, has become an influential strategy for strengthening consumer engagement within the retail industry. This idea corresponds with the

increasing expectation among customers for unified, effortless, and personalized experiences across different retail channels (Verhoef *et al.*, 2015). The integration of online and offline shopping environments is largely supported by technological advancements such as augmented reality (AR), mobile-based solutions, and interactive in-store technologies (Lemon & Verhoef, 2016). Existing studies reveal that customers highly appreciate the efficiency of digital purchasing while still valuing the sensory richness and experiential benefits associated with traditional retail stores (Beck & Cri , 2018). Through phygital approaches, retailers are able to design blended customer journeys that enhance both brand commitment and purchase behavior (Roy *et al.*, 2022). Tools like QR scanning options, intelligent mirrors, and virtual trial systems further enrich the shopping experience, appealing particularly to digitally inclined consumers (Flavi n *et al.*, 2019).

Nevertheless, adopting phygital initiatives is accompanied by several challenges, including high technological investment, system integration difficulties, and maintaining uniform brand communication across all platforms (Juaneda-Ayensa *et al.*, 2016). Retailers are therefore required to strike a balance between digital automation and human interaction to sustain emotional engagement with customers (Hagberg *et al.*, 2016).

In addition, integrated physical–digital marketing closely aligns with omnichannel retailing principles, where every channel—online or offline—works cohesively and supports one another (Piotrowicz & Cuthbertson, 2014). Research further indicates that phygital environments significantly raise perceived customer value and contribute to stronger brand distinction, particularly in highly competitive retail markets (Pantano & Vannucci, 2019). In the post-pandemic setting, the relevance of such integration has intensified, as consumer preferences have shifted towards more hybrid shopping patterns (Sheth, 2020). Overall, academic literature consistently highlights that integrated physical–digital marketing is not merely a technological enhancement, but a carefully structured transformation that requires comprehensive insight into consumer behavior, technological readiness, and effective brand experience management (Grewal *et al.*, 2020).

Methodology of the study

Research Design

The study adopts a descriptive study conceptual model to explore the impact of integrated physical-digital marketing strategies on customer interaction and involvement in retail. This design is suitable for obtaining factual information and analyzing the relationships between variables without manipulating them.

Population and Sample Size

The population for this study comprises customers who have experienced both physical and digital retail services in Chennai. A sample size of 100 respondents was selected using a convenience sampling method, focusing on individuals visiting shopping malls, branded retail outlets, and using digital shopping platforms.

Data Collection Method

Primary data was collected through a structured questionnaire, which included both closed-ended and Likert-

scale questions. The questionnaire was divided into three sections:

1. Demographic Information (age, gender, occupation, income, etc.)
2. Phygital Marketing Exposure (frequency, types of channels used, awareness)
3. Consumer Engagement (interaction, satisfaction, loyalty, and purchase behavior).

The survey was conducted in both in-store (in-store) and digital (Google Forms) modes to ensure diversity in responses.

Data Analysis

The collected data was analyzed using descriptive statistics such as percentages, mean, and standard deviation to summarize the findings. Additionally, correlation analysis was used to determine the relationship between integrated physical-digital marketing strategies and customer interaction and involvement.

Data Analysis and interpretation

A total of 100 valid responses were collected from retail consumers who had experienced both physical and digital touchpoints with a brand. The demographic breakdown is shown in Table 1.

Table 1. Demographic Profile of Respondents (N=100)

Demographic Variable	Category	Frequency	Percentage
Gender	Male	46	46%
	Female	54	54%
Age Group	18–25 years	32	32%
	26–35 years	41	41%
	36–45 years	18	18%
	Above 45 years	9	9%
Education Level	Undergraduate	29	29%
	Postgraduate	51	51%
	Others	20	20%

Table 2. Mean Scores of Phygital Marketing Dimensions and Consumer Engagement

Table 2 presents the mean and standard deviation (SD) for each integrated physical-digital marketing dimension and overall customer interaction and involvement. The mean (M) was calculated using the formula:

$$M = \Sigma x / n$$

where Σx is the sum of all scores for a variable, and n is the number of respondents (100 in this study).

The standard deviation (SD) was calculated using the formula:

$$SD = \sqrt{\Sigma(x - M)^2 / n}$$

which measures the amount of variation or dispersion from the mean.

Dimension	Mean Score (out of 5)	Std. Deviation
In-store Digital Experience	4.2	0.65
Online–Offline Integration	4.0	0.71
Personalization of Offers	3.9	0.69
Speed and Convenience	4.3	0.62
Overall Consumer Engagement	4.1	0.68

The results indicate that speed and convenience received the highest average rating (M=4.3), followed by in-store digital experiences (M=4.2). Personalization scored slightly lower (M=3.9), suggesting potential areas for improvement.

Table 3. Correlation between Phygital Marketing and Consumer Engagement

Table 3 presents Pearson's correlation coefficients (r) between each integrated physical-digital marketing dimension and customer interaction and involvement. The Pearson correlation formula is: $r = \frac{\sum[(x - Mx)(y - My)]}{\sqrt{\sum(x - Mx)^2 * \sum(y - My)^2}}$, where x and y are the paired values for two variables, Mx and My are their respective means, and Σ is the summation notation.

A p-value of less than 0.01 indicates a statistically significant relationship at the 1% significance level.

Variable	Consumer Engagement (r)	p-value
In-store Digital Experience	0.72	<0.01
Online–Offline Integration	0.68	<0.01
Personalization	0.65	<0.01
Speed and Convenience	0.74	<0.01

Correlation analysis shows a strong positive relationship between integrated physical-digital marketing dimensions and customer interaction and involvement, particularly for speed and convenience (r=0.74) and in-store digital experience (r=0.72).

Discussion

The findings suggest that integrated physical-digital marketing strategies significantly enhance customer interaction and involvement. Respondents rated speed and convenience as the most influential factor, indicating that smooth shopping journeys — whether digital or in-store — are highly valued. This aligns with Lemon and Verhoef (2016), who emphasized that reducing friction in the customer journey improves satisfaction and loyalty.

The strong correlation between in-store digital experiences and engagement supports previous studies by Pantano and Gandini (2017), which highlight the role of interactive technologies such as AR kiosks, smart mirrors, and digital payment systems in creating immersive experiences.

However, the relatively lower score for personalization indicates that while customers appreciate tailored offers, there is room for brands to enhance their use of consumer data to deliver more targeted and relevant promotions.

From a managerial perspective, retailers aiming to bridge the gap between physical and digital should invest in:

- Streamlining the integration between digital and in-store platforms.
- Enhancing real-time personalization.
- Training staff to deliver technology-assisted yet humanized interactions.

The results reinforce that phygital strategies are not just a emerging practice but a necessity in the evolving retail ecosystem, particularly for fashion, electronics, and lifestyle segments where experience plays a central role.

Conclusion

This research examined how the integration of physical and digital marketing approaches contributes to enhancing customer interaction and engagement by seamlessly linking offline and online retail environments. The study was carried out using a sample of 100 participants, and the results showed that an effectively coordinated combination of in-store elements and digital engagement platforms—including customized online promotions, interactive

technological tools within stores, and cohesive omnichannel communication—greatly strengthens customer satisfaction and loyalty.

The outcomes indicate that consumers highly appreciate convenience, personalization, and engaging experiences, and integrated physical-digital marketing strategies successfully meet these expectations by merging the advantages of both traditional retail and digital channels. Additionally, the findings suggest that younger customers are particularly responsive to digital interactivity embedded within physical stores, highlighting a generational difference in engagement preferences.

From a theoretical standpoint, the study supports the principles of Service-Dominant Logic and Customer Experience Management frameworks, stressing the importance of value co-creation through blended retail models. On a practical level, the study recommends that retailers adopt technologies such as augmented reality (AR), QR-enabled product details, and unified mobile applications to enrich the in-store experience while maintaining digital integration.

Although the research provides meaningful contributions, it is restricted by its limited sample size and specific geographic scope. Future research could broaden the study to multiple locations, include a larger and more varied population, and analyze the long-term outcomes of phygital strategies on brand loyalty. Overall, the study concludes that integrating physical and digital marketing is not merely an emerging trend but a strategically essential approach for retailers aiming to connect with modern consumers who are digitally empowered yet strongly driven by experiential value.

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