

## A LITERATURE REVIEW ON UNDERSTANDING THE CONSTITUENTS OF PHYGITAL RETAIL

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### ABSTRACT

The Indian Retail Sector is at a juncture where the juxtaposition of the physical and the digital has resulted in an eminent hybrid structure known as Phygital retail. Retailers are incorporating newly innovated technologies in their physical and online stores to face competition, keep up with the evolving demands of consumers influenced by technological innovation, and remain relevant in the market. The efficacy of these technologies is a matter of question. While smartphones and digital payments have streamlined the shopping experience exponentially, the impact of other technologies like Augmented Reality, Virtual Reality, and Artificial Intelligence that further blurs the line between physical and digital are a few areas where research is sparse. This paper aims to explore, ascertain and understand the various constituents of phygital retail and analyze the efficiency of these constituents. The research follows an exploratory research design that studies research papers, theses, and reports published by the media.

**Keywords:** Retail, Phygital retail, Omni-channel, Digital Payments, Augmented Reality, Artificial Intelligence, Virtual Reality, Innovation, and Creativity.

### Introduction

The entire world came to a standstill as waves of the Covid-19 pandemic hit humankind one after the other leaving people stranded and confined to their homes for months. However, the wave of digitalization has bridged the gap between offline and online by creating an ecosystem where both coexist, namely the Phygital Retail. India witnessed a 35% growth in its internet users from 500 million in 2018 to 630 million in 2019.

Globally, luxury brands like Burberry, and Prada have been using Augmented Reality, Virtual Reality, and gamification create a rather enriching experience for consumers with the help of 3D assistance. Home brands like Sugar and the e-commerce platform Purple in the cosmetic industry, for instance, are also including advanced features like facial recognition that help consumers to choose a shade of lipstick best suited based on their skin tone from the comfort of their home. Retail shops like D-mart have created a convenient shopping ecosystem where one can order online and pick up the delivery products from the store in person thus saving time and effort.

It has been observed that the progress in technology has influenced consumers' preferences as they are on the lookout for more experiential, engaging, and interesting shopping options both offline and online. For instance, they gain information about the availability of products, and unique selling points about it and make an informed decision. However, traditional retailers with traditional customers and brick-and-mortar shops are the ones lagging and incurring losses due to their reluctance to integrate advanced technical solutions. As the customer is browsing for options, a quick and easier course will be preferred even if that means scanning a barcode to make payments at a Kirana store.

The Economic Times has reported that UPI (unified Payment Interface) in India has increased by 50 percent since last year where currently 360 million daily transactions are made daily as opposed to 240 million transactions in February 2022. The value of these transactions is worth Rupees 6200 billion. UPI being introduced in 2016 has been a success as it is used in retail shops, kiranas, vendors on the street. The user-friendly feature of these payments deserves merit in terms of marketing innovation and creativity.

However, in a few urban and semi-urban areas, transitioning into a phygital is still a work in progress as the government's initiative of turning rural India digital is underway. Resistance to use digital methods by the older generation of consumers, complex user interfaces, fleeting attention spans and fear of online frauds/scams are a few of the perceptions that hold them back. Therefore, the need for companies to build trust among customers. This research paper tries to identify the various constituents of phygital and analyze the efficiency of the same during the consumers' purchase journey when exposed to these modern technologies at different touchpoints.

### **Objectives**

The key objectives of the paper are as follows:

- To ascertain the different instruments/constituents of Phygital Retail that streamline the consumer shopping experience.
- To understand the efficiency of these instruments/constituents.

### **Literature Review**

The concept of phygital is explained as the combination of elements of two modes of retail, the online and the offline which serves as an alternative entry (Serrano, García, 2023) It is also observed that the behavior of the consumers is also changing from the consumption point of view as the mode of communication and exchange of information has evolved. The point has been further strengthened in recent years since the COVID pandemic as consumers are more at ease to make online payments and purchases online. It is a result of technological innovation directed towards an enhanced shopping experience for consumers.

This establishes that consumers are on the lookout for such shopping experiences where the physical is blending with the digital world similar to artificial intelligence in a few video games where they are the focal point of this experience. Hence, the consumer's wants act as one of the drivers for traditional marketers to gradually adopt new ways and technology and primarily focuses on providing diversified, and quality experiences through constant innovation, renovation, and implementation of the same.

Johnson, Barlow (2021), say that Phygital is not just limited to physical and digital combination, but is to be viewed as an amalgamation or a hybrid structure. It explains that the adoption of smart-technologies and phygital resources these days influences a customer's decision-making as it blurs the line between real and the virtual. This means that the boundaries of geography and time are reduced thus increasing the engagement between the brands implying that incorporating digital technologies in the purchase journey enhances the consumer experience and a sense of ownership is established instantly toward the product.

Therefore, the increased attention paid to the adoption of phygital retailing techniques presents the potential in combining the physical and digital aspects and offering unique shopping experiences to consumers which ultimately boosts sales. It was understood that the advantage of it is the considerable reduction in the payment pain as and when digital strategies and digital modes of payments are implemented during purchase. The simulated in-person experience combining the best of the physical and the digital features creates an attachment between the consumer and the product where product pain is diminished.

### **Omni-Channel**

With the help of effective social strategies, user-friendly mobile shopping experience, and insightful advanced logistical support and supply chain, the omni-channel is one of the interactive and innovative foundations of phygital as it caters to the expectation of Indian customers (Hole, Pawar, & Khedkar, 2019). Omnichannel is one of the tools that retailers use to compete in the evolving market that enables a seamless purchase journey. 68% of Indians await customer support virtually regardless of the medium of the channel of service they use. Therefore, companies are encouraged to undertake efficient after-sale services to strengthen the loyalty of consumers and meet their demands.

It is understood that omnichannel interactive technology offers a better shopping experience to consumers and helps in bridging the gap between anticipated real-time expectations of consumers. While the strategies and adoption of new technological support in the omni-channel ensure consumer loyalty and frequent repurchases, a properly integrated channel will serve the demands of the consumers. This is because it is implied that no matter what the retailers are expected to serve customers even with limited resources at any given point in time and place, failing to do so will only result in loss of customers as they will be diverted to different channels.

### **Smartphones**

The evolution of smartphones has paved the way for a reformed buying behavior among consumers and hence innovative marketing and selling strategies have been formulated to meet their needs (Van Tichelen, 2019). It has been noted that customers, especially Millennials and Gen-Z nowadays, prefer shopping through showrooming and webrooming to get better deals on products. While webrooming is when consumers compare the products and their prices online and then make the final purchase offline. Showrooming, is when consumers visit physical stores first and then make purchases. Push notifications, messages, delivery-tracking, and online payments have made the experience coherent as they are more comfortable using their mobile phones. Google (2016), in their consumer insights review, shows that 82% of consumers are consulting their smartphones while making purchases at a store. This arises from the fact that consumers want to make informed choices even

during their “I want to buy moments”. Therefore, smartphones are the building blocks of growing phygital in India.

Therefore, in recent times, it is not just the looping screens that invoke consumer loyalty. It is the omnipresence of end-to-end technological solutions which consumers receive on their smartphones that connects Gen-Z as they are always dependent on their smartphones. It sheds light on the importance of smartphones as a major contributor in the phygital retailing world as it helps in better engagement between the brands and the customers and creates a comfortable space for them when they use their phones instead of unknown technology.

### **Digital Payments**

Reports by the National Payments Corporation of India (2023) depicts the volume of UPI transactions at 8,685.30 (in Mn) as on March 2023. Digitalization of the payment systems has certainly been a contributor to green marketing and maximizes the boundaries of phygital. Chawla, Dasgupta, & Chakraborty (2021), says that as more focus is given to ensuring safe online payments, the interest among customers to go cashless is also increasing. The applications also provide offers, discounts, promo codes, and cashback attracts customers. Using digital payment methods reduces the risk of carrying cash, and the wastage of paper receipts becomes minimal as online bills are generated. Additionally, the government's initiative of Digital India also motivates people to use e-wallets.

On the contrary, it is also seen that consumers belonging to different regions of the country do not use these digital wallets or payment systems due to the lack of education, advanced banking systems, and awareness about the same. Despite the initiatives, and strategies adopted by the companies, semi-urban and rural areas are still behind when it comes to adopting online payments indicating the need to integrate into a nationwide electronic network since a small pool of banks is a part of the NEFT, IMPS, and UPI network (Kumar & Singh, 2023)

### **Contactless Self-checkouts**

Mukerjee, Deshmukh, & Prasad (2019), shed light on retail stores adopting self-checkout technologies and customers' readiness to adapt to them at retail stores in Hyderabad. Self-checkouts are an innovative and sustainable concept where customers can make payments by scanning the barcodes displayed in the checkouts through Internet banking, debit/credit cards, or UPI and receive instant e-bills on their registered mobile numbers. Positive correlations were also observed between the customers who were willing to explore the new mode of checkouts and their as it is perceived to be an easier and time-saving technology.

Hence, it highlights the fact that Indian customers are ready to adopt self-checkout technology due to the ease with which payments are made digitally through their smartphones. This not only reduces the time taken to stand in long queues at checkout points, but reduces the hassle of carrying cash and change, and also drives the customers to use the same as it makes the shopping journey easier and more convenient for them. However, the insecurity and risk of payment failures do create discomfort among consumers as they are still adapting to the new payment systems and interfaces.

### **Artificial Intelligence**

Artificial Intelligence is paving its way in the retail sector and calls for credit as it involves creativity and innovation to be incorporated in stores. The ease, precision, and speed of data analysis with the help of AI enable companies like Amazon, and Alibaba to provide better and seamless services (Kaur, Khullar, & Verma, 2020).

The inclusion of technologies like Chatbots, Interactive chatbots, and automatic kiosks in physical stores creates a personal relationship between the customers and brands which boosts the business. It is advised though that the business, however, should adopt these technologies according to their needs and consumer preferences.

This brings to light the evolution of digital communication, smartphones, and devices along with its impact on the consumer's expectations, preferences, and how they shop. The introduction of Siri, Cortana, or Alexa into the world has transformed the way consumers interact with voice recognition, quick weather updates, or just quick check the availability of the product. This has raised the expectations in their shopping journey and has become pertinent for retailers to meet consumers' demand as smart technologies help in building better interpersonal relations. Consequently, from the company's point of view, the data collected by employing advanced technological solutions helps in analysis of the data and formulate efficient strategies.

### **Virtual Reality**

Virtual reality is shaping and enhancing the customer's shopping experience phygitally along with evolving technology (Kumar, 2021). A few of the tools include the use of screens which are interactive in nature, projection screens, portable headsets, 3D in-store layouts, and user-friendly interfaces. Employing creative technological instruments in the retailing sector has grasped the customer's attention, strengthened retention, and enriched the shopping experience. The utilization of VR helps in easy navigation and improved human interaction not only online but also in physical shops. However, data privacy and security concerns must be taken into consideration and dealt with care.

The integration of virtual reality, on the one hand, contributes to a coherent shopping experience, as consumers can experience retail stores from the comfort of their homes with the help of VR headsets as predicted by Mark Zuckerberg, the founder of Meta that these headsets will be similar to a pair of looking glass. However, on the other hand, not all retailers in India can integrate virtual reality technology into their setups this is because of funds constraints, space constraints, and lack of technical expertise. Additionally, the acceptance of advanced technology by all segments of the market and adopting it in everyday life is a point of concern. It hence needs to be evaluated before getting implemented.

### **Augmented Reality**

The use of Augmented Reality technology in retail remolds the way customers experience the brand and therefore boosts sales especially online (Tan, Chandukala, & Reddy, 2022). AR technology bridges the gap between the apprehension that consumers may have regarding a product and instills confidence about a product. As the technology integrates virtual products and gives the user an experience of how they would appear in real-time in the physical world, the blending of the virtual and physical environment enriches the customer's journey. Technologies like face recognition, hand gestures, and 2D, and 3D view prove effective for customers who are new to a certain product category and give clarity to consumers. Therefore, it is evident that the incorporation of Augmented Reality technology is effective in those product categories where the level of uncertainty is high and customers need to rely on AR to bridge the gap as it helps the shopper to try out the products from their respective homes. While the use of augmented reality in retailing creates leverage for the brands, the efficacy of this technology will be limited to those customers who are used to online shopping and have ordered in the past in contrast to those who are offline shoppers and are new to it and may take time to get accustomed to the new shopping technique.

### **Research Methodology**

The research study is exploratory in nature. It is based on reviews of research papers, articles, and reports published by the media. Statistical figures presented have been collected from websites and reports in line with the recent data and included wherever deemed necessary.

### **Research Gap Identified**

From the above literature review, it has been identified that there is limited research on phygital retail and the building blocks that constitute the system. There are finite studies in the Indian context with reference to Indian retailers. Also, the papers are limited to secondary research which does not gauge consumer perceptions and their behavior towards the different variables of Phygital retail. While there are many findings on the evolution of technologies in shopping methods, there is a dearth of the efficacy of these and how well it is accepted and adopted by consumers. Additionally, there is limited knowledge on the acceptability of the adaption of phygital retailing in rural areas as rural India consists of a huge population and contributes to the GDP of the country. Furthermore, the lack of study with large sample pf respondents which represents the varied categories and demography to get an overview creates a gap. There is also a deficiency in research relating to the interaction and relationship between the multiple elements of phygital retail and the motivation and consumer purchase intentions in a detailed manner through laboratory tests, and field tests, and interviews. Lastly, to bridge the gap, profits of the retailer, sales figures, and financial outcomes through longitudinal studies will help in further investigation of the success or the failure of the integration of the phygital methods by the retailers over a period.

### **Secondary Data Analysis**

The covid-19 has firmly created a strong relationship between technology and consumers in their day-to-day shopping through mobile phones like ordering online or making payments with the help of digital wallets. It has been observed that consumer behavior has changed over decades along with their preferences. Similarly, transformation in technology has also taken the world from mere telephones to digital phones. It presents opportunities and possibilities for companies to integrate digital into their traditional brick-and-mortar shops and vice-versa thus eliminating the boundaries of time and location which is a boon to consumers. At the same time,

it places the retailers in a competitive market where other retailers offer modern selling experiences starting with digital payments and continuing after sale.

Creating a phygital retail environment creates a space where the physical and digital worlds get integrated, thus offering a unique shopping experience for the consumers. We present a conceptual model of the different constituents that make up the phygital retail.

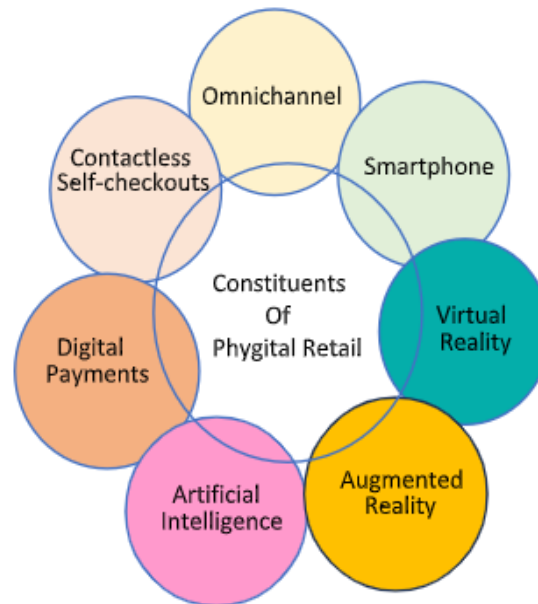


Fig1. Constituents of Phygital Retail (generated by the authors)

Based on secondary research conducted, the diagram depicts that the phygital retail environment comprises of omnichannel, smartphones, digital payments, contactless self-checkouts, artificial intelligence, virtual reality, and augmented reality. **Omni-channel** is a part of phygital retailing as it strives to integrate the communication channel so that consumers can choose one according to their preferences. Where the blend of the physical with digital in the omni-channel enables consumers to avail prompt and customized services catering to their demands. **Smartphones** are the major drivers in the transformation wave, as everything is made available to consumers with just one touch starting with product availability, information, and ordering online. As mentioned earlier, 82% of consumers use smartphones to find information before making a purchase indicating their dependence on smartphones as they want to make informed decisions. Another constituent of phygital retail is the **digital payment methods** which have boosted customers to switch to cashless transactions due to the ease of payments, more discounts, and also the government’s initiatives to increase awareness. Adding to a coherent shopping experience are **contactless self-checkouts** that have replaced the old ways of standing in long queues at shopping marts with quick payments through barcodes, and UPI payments kiosks, hence diminishing the overall time spent in shopping. Lastly, induction of **artificial intelligence, virtual reality, and augmented reality** into retailing is paving the way for consumers to experience the products, and brands and establish an emotional connection with them through better interaction through virtual try-on options, in-store navigation, online catalog of products. The interaction between the brand and the consumer is further amplified through chatbots, interactive bots online and intuitive lighting, selfie mirrors at physical stores, thus providing a memorable experience.

### Conclusion

The research paper establishes the fact that consumer demands have evolved in sync with technological advancements as well. From consumers' point of view, the retailers are expected to provide the best and most seamless quality shopping experience to the consumer as they will switch to brands that meet their expectations. The phygital is inclusive and has blended the physical with the digital. However, the efficiency of these constituents comes with its pros and cons. While a segment of the market is adaptive and ready to accept technologically advanced offerings in the form of cashless transactions, self-checkouts, trying out the shade of

lipstick virtually, and ordering online. Another segment is yet to be exposed to even the basic digital payment methods, for example: in rural areas where very few central cooperative banks have facilities like UPI, IMPS, and NEFT. Therefore, the managerial implication here is the fact that retailers must efficiently merge the physical with the digital, based on not only customer demands and expectations, but also on their own capabilities and technological expertise along with strong capital investments for integrating different constituents.

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