



Technology for Omnichannel Retailing – A Systematic Literature Review

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Abstract

The introduction of new channels in the market and the continuous advancement of technology have led to a significant change in customer shopping behavior. To satisfy these customers, many retailers had to opt for omni-channel strategy. This review paper systematically summarises 241 articles of different types that have been published since 2011 and are indexed by Scopus. These papers discuss the importance of omnichannel retail technology. We have organized research developments and related research issues in order to direct future research.

Keywords: Omnichannel retailing, consumer behavior, channel integration, technology

Introduction

The existence of multiple retail formats, varieties of communication mediums, available devices, and various technologies has changed shopping. The new way of shopping has led retailers to think innovatively, to adapt their strategies, and to establish a customer-driven format that gives rise to the concept of Omnichannel Retailing (de la Fuente, 2019).

Omnichannel retailing connects all the channels (traditional stores, e-commerce, mobile apps, and social media) that facilitate customers to seek information from one channel and buy from another (Lazaris et al., 2014). Besides, the omnichannel concept has evolved to engage customers with a retailer, minimizing the channel's perceived mediating role (Piotrowicz & Cuthbertson, 2014).

Moreover, in the current scenario, the idea of omnichannel retailing is developed to its best as the global health crisis has significantly intensified customer usage of online and offline channels in tandem, whether for click-and-collect, contactless delivery, or several other delivery alternatives. The customers have evolved into mega online users, even though they occasionally continue to shop in conventional brick-and-mortar shops.

Hence, Omnichannel retailing's advanced technology can attract and retain more customers and contribute to more engagement, participation, and entertainment (Pantano & Viassone, 2015).

Hence, it will be interesting to carry out a systematic literature review of the technical advances in omnichannel retailing sub-areas.

Research Methodology

This research paper is focused on a detailed literature study of the technical aspects of omnichannel retail. The Scopus database was consulted on peer-reviewed articles and conference proceedings from 2011 to 2020.

The literature search was performed on the abstract, title, and keyword fields of the research papers "Omnichannel" OR "Omni-channel" OR "Omni channel" in combination with "R/retail" or "R/retailing" under the subject filtering as business management & accounting. This search leads to a total of 241 peer-

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reviewed journal articles, conference proceedings. After reviewing and using the keyword analysis of these articles, we found significant domains under omnichannel retailing.

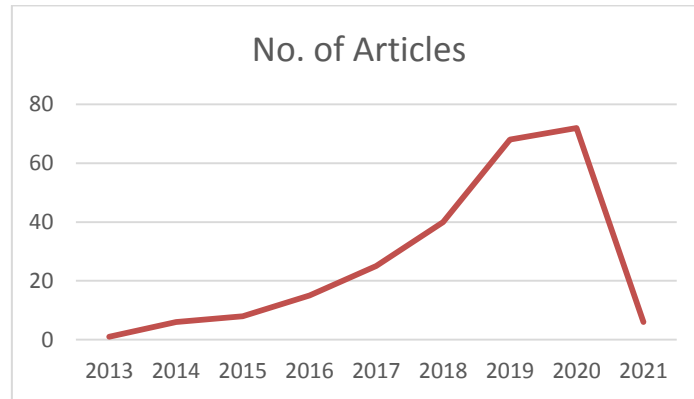


Figure 1 Documents by year

We found that from Figure 1, there is a progressive growth in academic papers on Omnichannel retailing since 2013.

Top Journals

Figure 2 shows that the International Journal of Retail and Distribution Management, the Journal of Retailing and Consumer Services, has shown a strong academic interest in Omnichannel retail across the various sub-areas.

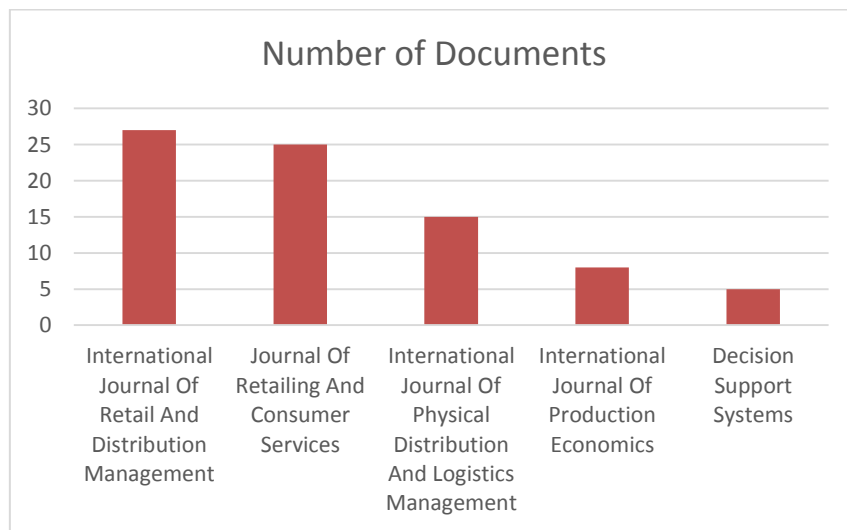


Figure 2 Top journals publishing most articles across thrust areas

Discussion

There are numerous ways technological developments contribute to a shift in the conventional retail structure (Luo et al., 2016). In the current market, customers' income and spending have been significantly curtailed due to unemployment, furloughing, or other COVID-19-related challenges. Today, these customers have grown into super-online users, even though they occasionally continue to shop in traditional brick and mortar shops. However, the customer does not know what omnichannel is, but now they expect the ease of shopping in person, versatility in ordering choices, and a broad range of items. So, they'll use all the platforms simultaneously and expect to get both customization and comfort from their shopping experience.

The organizing framework shown in figure 3 represents the sub-areas of Omnichannel retailing that have been identified in the literature review. The renowned authors have emphasized the importance of channel integration, technological advancement, and effective supply chain (Abrudan et al., 2020; Cai and Lo, 2020; Grewal et al., 2017; Hickman et al., 2020; Jocovski et al., 2019; Larke et al., 2018; Shubham Jain, Daniel Mora, 2019).

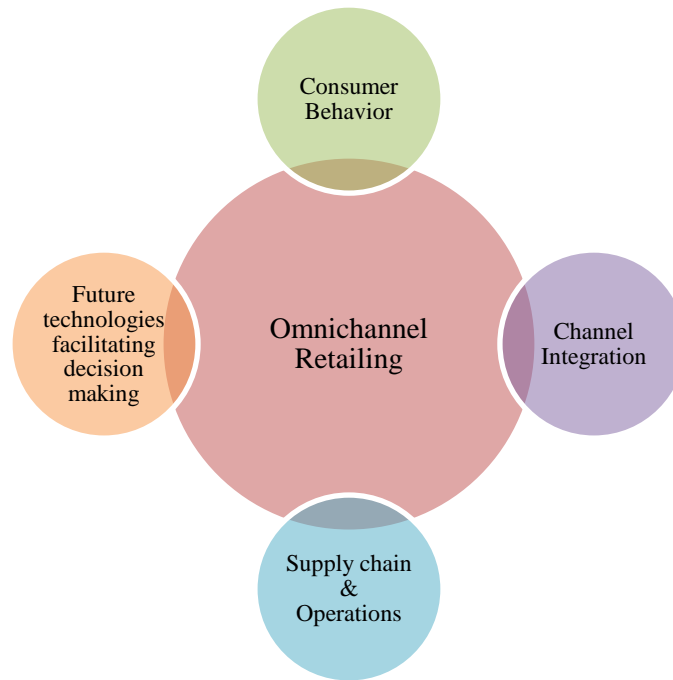


Figure 3 Areas of Omnichannel retailing

Consumer Behavior

Consumer behavior has shifted drastically since the onset of the pandemic. Their needs and expectations are changing rapidly across various categories of technology and media. This change in customer behavior is not spontaneous but has been exacerbated by the existence of Covid-19. Because of which transition is happening through several business verticals all at the same time. Businesses also need to consider the larger patterns, predict the resulting changes, and be prepared to exploit the opportunities when they arise (Mathers, 2020).

Channel Integration

Channel Integration influences the conduct of customer shopping. Integrated channels are driving positive revenue growth. Various research has shown that an interactive platform empowers customers to browse online and provides more benefits when shopping offline. It gives them a sense of pride as they feel superior to the salesmen (Shakir Goraya et al., 2020). It will motivate customers and increase their loyalty (Zhang et al., 2018). Besides, it increases their happiness and improves their purchasing intention. Integrated new in-store technology and mobile devices provide customers with greater accessibility and unlimited shopping options. It also enables different shopping networks to be creatively complemented (Bèzes, 2019; McCormick et al., 2014; Mladenow et al., 2018).

Supply chain & Operations

The growing importance of omnichannel retailing means that physical store retailers/pure online players need to create new distribution systems to serve customers through integrated channels. As it integrates online and offline stores to provide the customer with a seamless experience. For example, retailers may fulfill orders via cross-channel fulfillment as it allows a physical store to perform online orders from any venue. A further omnichannel retailing goal is price transparency, which lets customers equate online pricing with store prices (Harsha et al., 2019).

Future technologies facilitating decision making

Technologies offer retailers a foundation to gather, store and evaluate data from each channel. As a result, retailers can more effectively gain market insights that fuel customer preference and loyalty. Omnichannel retail provides customers with a customized and immersive experience of shopping across platforms. Leveraging technologies such as Artificial Intelligence, Augmented Reality/Virtual Reality, and IoT makes it possible to engage customers (Verhoef et al., 2017) through various platforms. All these technologies help brands communicate with consumers in a physical environment (Berman, 2019; Simone &

Sabbadin, 2017; Zagel et al., 2017). Research should also be undertaken to analyze the relationship between the consumer and these technologies (von Briel, 2018; Sun et al., 2020).

Conclusion

Omnichannel is the need for an hour. The identified areas of omnichannel retail need attention from retailers to best serve consumer desires, preferences, and buy-in behavior. Besides, new technology can play a crucial role in the current scenario. It will make the retailer prepare for any potential pandemic so that their company will not be affected. Such as Covid-19 has increased the probability of paying cashless. Small retailers would also understand its value and add various platforms, ordering and distribution options, and payment options to their business model. Simultaneously, the primary brand would promote the innovations used and discover which technologies they are investing in, as this awareness is a crucial indicator of purchasing intention (Juaneda-Ayensa et al., 2016).

References

1. Berman, B. (2019). Flatlined: Combatting the death of retail stores. *Business Horizons*, 62(1), 75–82. <https://doi.org/10.1016/j.bushor.2018.08.006>
2. de la Fuente, A. M. (2019). *Omnichannel Retailing and Changing Habits in Consumer Shopping Behavior*.
3. Harsha, P., Subramanian, S., & Uichanco, J. (2019). Dynamic pricing of omnichannel inventories. *Manufacturing and Service Operations Management*, 21(1), 47–65. <https://doi.org/10.1287/msom.2018.0737>
4. Lazaris, C., Vrechopoulos, A., Fraidaki, K., & Doukidis, G. (2014). Exploring the “Omnichannel” Shopper Behaviour. *AMA SERV SIG, International Service Research Conference, 13-15 June, June*. <https://doi.org/10.13140/2.1.1278.2089>
5. Mathers, K. (2020). *As consumers drive cross-industry acceleration, how can marketers keep up? Think with Google*.
6. Pantano, E., & Viassone, M. (2015). Engaging consumers on new integrated multichannel retail settings: Challenges for retailers. *Journal of Retailing and Consumer Services*, 25, 106–114. <https://doi.org/10.1016/j.jretconser.2015.04.003>
7. Piotrowicz, W., & Cuthbertson, R. (2014). Introduction to the special issue information technology in retail: Toward omnichannel retailing. *International Journal of Electronic Commerce*, 18(4), 5–16. <https://doi.org/10.2753/JEC1086-4415180400>
8. Shakir Goraya, M. A., Zhu, J., Akram, M. S., Shareef, M. A., Malik, A., & Bhatti, Z. A. (2020). The impact of channel integration on consumers’ channel preferences: Do showrooming and webrooming behaviors matter? *Journal of Retailing and Consumer Services*, April 2019, 102130. <https://doi.org/10.1016/j.jretconser.2020.102130>
9. Simone, A., & Sabbadin, E. (2017). The New Paradigm of the Omnichannel Retailing: Key Drivers, New Challenges and Potential Outcomes Resulting from the Adoption of an Omnichannel Approach. *International Journal of Business and Management*, 13(1), 85. <https://doi.org/10.5539/ijbm.v13n1p85>
10. Verhoef, P. C., Stephen, A. T., Kannan, P. K., Luo, X., Abhishek, V., Andrews, M., Bart, Y., Datta, H., Fong, N., Hoffman, D. L., Hu, M. M., Novak, T., Rand, W., & Zhang, Y. (2017). Consumer Connectivity in a Complex, Technology-enabled, and Mobile-oriented World with Smart Products. *Journal of Interactive Marketing*, 40, 1–8. <https://doi.org/10.1016/j.intmar.2017.06.001>
11. Zagel, C., Niels, A., & Bodendorf, F. (2017). Using smartphones for information retrieval in omnichannel scenarios—Assessing the effectiveness of technological triggers. *Advances in Intelligent Systems and Computing*, 494, 151–159. https://doi.org/10.1007/978-3-319-41947-3_15