

The Effect of Integrating Augmented Reality to Omni-Channel Retailing and Its Impact on Customers Shopping Experience

Tandy Christoforou^a, Yioula Melanathiou^b and Ioanna Papasolomou^c

^a *University of Nicosia, Department of Marketing, School of Business, University of Nicosia, 46 Makedonitissas Ave., CY-2417. Email: a.boldurchidi@gmail.com*

^b *University of Nicosia, Department of Marketing, School of Business, University of Nicosia, 46 Makedonitissas Ave., CY-2417. Email: Melanathiou.y@unic.ac.cy*

^c *University of Nicosia, Department of Marketing, School of Business, University of Nicosia, 46 Makedonitissas Ave., CY-2417. Email: papasolomou.i@unic.ac.cy*

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The constant transformation in the customers shopping experience in retail is phenomenal as it saw a dramatic difference over the last decade (Christiaans, 2016). The current retailing trend is known as ‘retail 4.0’. This technique requires a seamless unification of all the digital and offline channels, by providing to the consumers the freedom to choose the ways they prefer to interact with the retailer. This was the explosion of the phenomenon known as Omni-channel retailing (Lee, 2016). This alteration in retailing both online and offline is largely responsible due to the rapid technological advancements (Moorhouse et al., 2017; Y. Lee & Cheon, 2019) and specifically to the innovative technology known as augmented reality (AR), which according to Bonetti et al., (2017), can be defined as a method ‘to combine real and computer-generated digital information into the user’s view of the physical world in such a way they appear as one environment’. AR brings together the virtual and real world by utilising images, texts, and videos to the consumer’s sight of physical setting in real time (Cruz et al., 2018).

As stressed by Perannagari & Chakrabarti (2019), further research is essential in exploring the different ways that Augmented Reality would be integrated into an organization’s Omni-channel retailing strategy. As an Omni-channel strategy provides an all-in experience to the consumers and blurs the lines between online and offline worlds (Y. Lee & Cheon, 2019), (AR) can be described as the ideal link between these online and offline channels as it embeds digital content into the customer’s physical environment, being interactive and in real time (Hilken et al., 2018). In other words, AR

application thins the breach between online and offline shopping (Iftikhan, Pourzolfaghar, Helfert, 2019), as a result, retailers utilize AR by implementing it within the ‘brick and mortar’, by installing in-store technology for instance; AR virtual mirrors gives to the consumers an immersive, pleasant and memorable experience. Sephora introduced this technology in the physical stores and consumers through this technology can see what they would look like wearing, for example, different kinds of make-up (Christoforou & Melanthiou, 2019). Mister Spex, provides an AR virtual mirror where customers can experience virtually different glasses by trying them on from their online assortment (Iftikhan, Pourzolfaghar, Helfert, 2019).

The biggest challenging component is for retailers to overcome the implementation process of AR. Further research is required to understand the ways customers experience AR, in order for companies to overcome the process of designing AR applications (Perannagari & Chakrabarti, 2019). Retailers should focus on supporting their customers throughout their shopping experience and develop and design the AR application according to the customers shopping behaviour and preferences. Further to this, brands need to take advantage of the existing brand–customer interaction through Smartphone’s, as well as to recognize customers’ preferences to personalize the customers shopping experience using new technologies (Mosquera, Olarte-Pascual, Juaneda Ayensa, & Sierra Murillo, 2018).

According to Bonetti et al. (2019), by installing in-store AR, showed that the customers experience within the store had an increase in brand perception thus leading to an increase in brand engagement. Further, the authors stressed that future research is needed in exploring whether consumers would spend more time in store due to an enhanced overall experience. Retailers can put into practise promotions that boost the participation of customers by employing AR applications, for example, Blippar apps which are utilized in mobiles to expose objects by just pointing the mobile to the products. Plentiful virtual information that is relevant to tangible products will emerge on the mobiles display as if the viewer would be in a fantasy world. Consequently, customers will be encouraged to download AR applications that enhance reality along with promotions

For the purpose of this study, qualitative research is proposed to further understand customers’ shopping experience. The method to be employed thus answering research questions is the use of two sets of focus groups; heterogeneous in nature, in other words,

consisting of consumers of both genders in the ages of 22-37 years old who are in the Millennials generation. Research questions were set, but will not be limited to:

RQ1: Would the addition of augmented reality in the ‘brick and mortar’ drive the customers to spend more time in the store or enhance the customers overall shopping experience?

RQ2: What are the possible ways of implementing augmented reality in the physical world in an Omni-channel retailing strategy?

The findings are expected to reveal the influence that in-store AR will have on customers overall shopping experience, as well as showing the relationship that AR and Omni-channel retailing have. In addition to this, solutions could possibly be presented for the current challenges that retailers face in implementing AR correctly in ‘brick and mortar’ stores, taking into consideration customers’ shopping behaviour and preferences.

References

- Bonetti, F., Pantano, E., Warnaby, G., Quinn, L., & Perry, P. (2019). Augmented Reality in Real Stores: Empirical Evidence from Consumers’ Interaction with AR in a Retail Format. *Augmented Reality and Virtual Reality*, 3–16.
- Bonetti, F., Warnaby, G., & Quinn, L. (2017). Augmented Reality and Virtual Reality in Physical and Online Retailing: A Review, Synthesis and Research Agenda. *Augmented Reality and Virtual Reality*, 119–132. https://doi.org/10.1007/978-3-319-64027-3_9
- Christiaans, H. (2016). The Future of Retail and Retail Design. In A. Petermans & A. Kent (Eds.), *Retail Design: Theoretical Perspectives* (pp. 212–226). Retrieved from https://books.google.com.cy/books?hl=en&lr=&id=ZioIDwAAQBAJ&oi=fnd&pg=PA212&dq=omni+channel+retailing+augmented+reality&ots=R0Modz5e1J&sig=uGJgg-naqdBpjJvOcXINvCESrAw&redir_esc=y#v=onepage&q=omni%20channel%20retailing%20augmented%20reality&f=false
- Christoforou, T., & Melanthiou, Y. (2019). The Practicable Aspect of the Omni-Channel Retailing Strategy and Its Impact on Customer Loyalty. *Palgrave Studies in Cross-Disciplinary Business Research*, In Association with EuroMed Academy of Business, 239–260. https://doi.org/10.1007/978-3-030-17523-8_11
- Cruz, E., Orts-Escolano, S., Gomez-Donoso, F., Rizo, C., Rangel, J. C., Mora, H., & Cazorla, M. (2018). An augmented reality application for improving shopping experience in large retail stores. *Virtual Reality*, 23(3), 281–291. <https://doi.org/10.1007/s10055-018-0338-3>
- Hilken, T., Heller, J., Chylinski, M., Keeling, D. I., Mahr, D., & de Ruyter, K. (2018). Making omnichannel an augmented reality: the current and future state of the art.

- Journal of Research in Interactive Marketing, 12(4), 509–523.
<https://doi.org/10.1108/jrim-01-2018-0023>
- Iftikhar, R., Pourzolfaghar, Z., & Helfert, M. Omnichannel Value Chain: Mapping Digital Technologies for Channel Integration Activities.
- Lee, C. K. H. (2016). A GA-based optimisation model for big data analytics supporting anticipatory shipping in Retail 4.0. *International Journal of Production Research*, 55(2), 593–605. <https://doi.org/10.1080/00207543.2016.1221162>
- Lee, Y., & Cheon, H. (2019). A Study on the Factors Affecting the User Intention of Omnichannel Shopping Based on Information Technology. *Proceedings of the 2019 5th International Conference on E-Business and Applications - ICEBA 2019*. <https://doi.org/10.1145/3317614.3317623>
- Moorhouse, N., tom Dieck, M. C., & Jung, T. (2017). Technological Innovations Transforming the Consumer Retail Experience: A Review of Literature. *Augmented Reality and Virtual Reality*, 133–143. https://doi.org/10.1007/978-3-319-64027-3_10
- Mosquera, A., Olarte-Pascual, C., Juaneda Ayensa, E., & Sierra Murillo, Y. (2018). The role of technology in an omnichannel physical store. *Spanish Journal of Marketing - ESIC*, 22(1), 63–82. <https://doi.org/10.1108/sjme-03-2018-008>
- Perannagari, K. T., & Chakrabarti, S. (2019). Factors influencing acceptance of augmented reality in retail: insights from thematic analysis. *International Journal of Retail & Distribution Management*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/ijrdm-02-2019-0063>
- Poushneh, A., & Vasquez-Parraga, A. Z. (2017). Discernible impact of augmented reality on retail customer's experience, satisfaction and willingness to buy. *Journal of Retailing and Consumer Services*, 34, 229–234. <https://doi.org/10.1016/j.jretconser.2016.10.005>