EFFECT OF AUGMENTED REALITY ON ONLINE BEAUTY ACCESSORY PURCHASE DURING COVID 19 PANDEMIC: A STUDY OF L'ORÉAL PARIS MAKEUP GENIUS

Ashima Jaswal, Apeejay School of Management

ABSTRACT

The COVID-19 pandemic that happened in the course of 2020 affects financial area in the cosmetic Industry. Shoppers can generally utilize on-line channels to diminish eye to eye contact with consumers. This examination expects to interrupt down the result of Augmented Reality during COVID-19 pandemic on retail customer conduct. This research utilizes subjective ways with auxiliary data sources no heritable from Delhi NCR working professionals and University students were taken. For this research qualitative analytical technique have been used with the help of questionnaire and data has been collected with the help of online voice records through social media, so this research is an exploratory cum descriptive research the outcomes show that the patterns during the COVID-19 pandemic are internet rooming and pure web primarily based shopping. This exploration is needed to be valuable for advertisers however Augmented Reality helps in rising retail showcasing procedures throughout the COVID-19 pandemic and increase a superior agreement and a lot of in-depth viewpoints how this new innovation (AR) creates interest in web based looking and make it more powerful for the corrective business.

Keywords: Augmented Reality, COVID-19, Cosmetic Industry, Experiential Value, L'Oréal Brand.

INTRODUCTION

In contrast to previous reality technologies, augmented reality (AR) occupies a central position in the mixed reality continuum, bridging the gap between the actual and virtual worlds. In this improved version of reality, live direct or indirect views of physical real-world environments are substituted with superimposed computer-generated pictures over a user's perspective of the real-world (Azuma et al., 2001).

Augmented Reality allows a customer to connect, control, and envision a product digitally in a real world, allowing for online purchases without the need to visit a store, as well as the emergence of new and different ways to market and advertise goods and brands. Advancement has a major effect on a company or store's marketing strategy. Despite the fact that the Covid-19 pandemic seemed to be over for a while, the turnaround took a significant hit. Retailers are developing cutting-edge innovations that will make customers' experiences inconceivably pleasant while still adhering to pandemic guidelines. Previous research has looked at the use of augmented reality in retail. Azuma (1997). Online electronic apps, in-store apps, and portable applications are the three categories of AR retail applications recognized. In addition, the authors defined the approach they took in leading a writing audit of business-related research on the use of augmented reality in retail.

When it comes to lifetime customers, brand loyalty is also essential. In shopping malls, AR-based commencements will encourage customers to engage in events, resulting in increased store visits and commitment. Additionally, AR-enabled customer-facing facade showcases can be viewed from a variety of angles to help bring customers into the shop (Papagiannidis et al., 2017).

L'Oréal Paris is a well-known cosmetics company that sells its products in department stores, is perhaps the most well-known brand within the L'Oréal Group. It sells a wide range of cosmetic products, including makeup, skin care, styling, and hair tone. Its proverb "Because you are worth it" is well-known among women, and it aims to convey the brand's overarching message of enabling quality, which has evolved over the last 40 years. L'Oréal Paris strives towards assist each lady loves embracing her own brilliance and building her trust in herself, as well as making creative things available to everyone. In terms of creativity, research, and development, L'Oréal Paris is acknowledged as a leader. The logical soul of the company has become a core part of its brand identity, empowering them to become leaders in creating business sector transformations (Rogers, 2004) Figure 1.

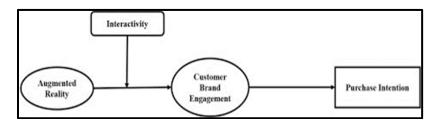


FIGURE 1
RESEARCH AND INNOVATION

According to the COVID-19 natural event encompasses a significant detrimental influence on all public health issues admire wellness as well as mental health and different economic pursuits admire economic retailers' employment and flow. Out of the Fortune 1,000 companies, 9,038 were affected by the epidemic (Williamson et al., 2003). Figure out that because of the pandemic, the economic process has also been slowed. According to the global economy could fall by 5.2 percent. Everywhere in the world, policymakers are attempting to find ways to mitigate the impact on the economy and commercial enterprises. Academics are looking into how to recoup the losses that businesses and their retailers have suffered as a result of the crisis. Says that, this outbreak has engulfed most of the world's retailers, as multiple participants from many regions are involved during a retailer's operation. Retailers are dealing with a number of challenges. To achieve competitive benefits, managing disturbances and ensuring resilience is critical. This epidemic is unprecedented, shattering all previous records for the degree of a retailer's operational disruption. This natural occurrence has an impact on all participants in the retail industry (Kumar et al., 2020).

The COVID-19 pandemic that happened all through 2020 has become a spic and span history for human progress. Customer behavior is also affected in this way. In general, clients will need to use online media to complete various purchasing cycles (Lin et al., 2020). This saves time and allows customers to conduct thorough research on items. Some customers can make cautious purchases while receiving information from sophisticated media (pure on-line shopping), while others can make purchases in physical stores while receiving computerized data (web rooming) for instant item confirmation. As previously stated in previous studies, on-line

retailers do not appear to have the ability to satisfy all of a customer's cravings in the same way that traditional/physical businesses do. Customer desires that do not appear to be met in online retailers exemplify the need to see, touch, and feel the product's standard in its whole (Solomon, 2007).

During the COVID-19 crisis, retailers suffer difficulties getting items from their suppliers due to limited transportation, government limitations, and restricted activities of distributors and wholesalers. At this time, proper management of this supply to ensure resilience is critical, as ordinary customers may panic if the product is not available. During the lockdown, online purchases grew in strength, with increased sales (Baliyan, 2017). Consumers are increasingly turning to digital media to find product details before making a purchase. Companies promote their AR/VR practices as a cutting-edge feature, and they use the innovations to build their brands and send the message that they stand for innovation, discovery, and creativity, in the hopes of attracting long-term customers (Ariely, 2015).

LITERATURE REVIEW

According to a recent a study more a than 1,400 outbreaks have affected business operations. Blosa and Wee (2020) also mention two major dangers in the retail sector: rain and infectious agent epidemics (Ariely, 2000). This emphasizes the importance of factoring in the effects of disease outbreaks in supply chain resilience plans. The new COVID-19 outbreak puts further more pressure on academics to look towards offering chain resilience in the face of epidemic and pandemic outbreaks. While the current epidemic has affected all businesses, including small businesses, there are currently no clear guidelines for small business owners. Ivanov's findings (2020a) make prognostication and planning for the retail sector easier during a pandemic (Jia et al., 2009).

Another study suggested that a company should prepare for its customers, community, team, and business continuity in the event of a pandemic. Throughout the epidemic, there are two types of disruptions: demand variation and offer variation. It is also stated that the COVID-19 pandemic will have a long-term impact. In a highly offer chain, risks reduce value creation assuming that all provision chains were non-continuous throughout COVID-19 (Cho & Schwarz, 2010).

This COVID-19 pandemic happens all through 2020 secretly when it will end. 2020 is the time of another human advancement for people, in light of the fact that the COVID-19 pandemic that is clearing the world powers people to embrace new practices to stifle the spread of the infection. This conduct change additionally happens in buyer conduct in retail exchange. With several stores closed and a large number of buyers on lockdown, the L'Oréal company said it was concerned about the market's prospects. However, it predicts that the 4.8 percent nearly identical deal growth seen in the first three months of 2020 will continue into the second quarter. In the Omni channel era, shopping methods like as web rooming and showrooming are becoming more popular. Showrooming and web rooming are online shopping techniques that bring together disparate divergences in the purchase cycle. Showrooming is a buying strategy that involves visiting physical establishments to get product information before making purchases online. Showroomers refer to customers who shop through showrooming. Web rooming is a type of shopping that involves using computers to research products and then making purchases in physical locations. Web roomers are purchasers who engage in web rooming activity. Showroomers and web roomers are typically looking to save money and/or ensure that the item is in good shape (Faust et al., 2012).

According to a study performed by Masory (2019), 72 percent of respondents consider sweetness and personal care products to be essential. Products eaten by a private for private health, hygiene, or cosmetic reasons are referred to as beauty and private care products. The cosmetics trade is one in all the leading industries in which increased reality application is used. For example, within the advertisement of Nivea with Rihanna, once users show the Niveawritten cap to the screen, Rihanna starts singing her song 'California King Bed' and users are enabled to observe the video with pictures giving off soft effect. Estee Lauder, another brand, created a talk box that enabled users to go looking for lip products, strive them, then purchase them through Facebook traveler because of the partnership it established with Midface, an increased reality technology developer (Pantano & Servidio, 2012).

In addition, augmented reality is used as a sales tactic across a wide range of businesses. Virtual fitting apps are used by brands including L'Oréal, Ray-Ban, and IKEA. Customers can use L'Oréal's "You Cam Cosmetics" app to inspect themselves over time on their smart device and explore, try on, and purchase different makeup products from the entire. The Ray Ban app "Ray-Ban virtual try-on" allows customers to try on a variety of spectacles in a short amount of time. IKEA's augmented reality programmer "IKEA Install" allows users to virtually place chosen furnishing anywhere in their environment, which is scanned with a smartphone camera. Augmented reality has become a tool for online merchants to improve their customers' shopping experience. It's portrayed as a way for internet merchants to recruit, encourage, and keep customers (Verhagen et al., 2014).

PURPOSE

The study's aim is to discover how Augmented Reality (AR) captures consumers' interest and forms a bond between them and the brand.

OBJECTIVES

- 1. To know how AR in L'Oréal Paris Makeup Genius app concepts contributes to influence the purchase intentions of the customer in the COVID 19 pandemic.
- 2. To recognize the buyer's experiential worth towards Augmented Reality (AR) try-on feature of L'Oréal.

METHODOLOGY

Client experiences for L'Oréal Paris Makeup Genius, a renowned cosmetics brand, were used to determine how Augmented Reality technologies are used in mobile applications, based on the concept of the real world. One of the subjective exploration techniques used in the study was coordinated meeting knowledge, which was used to obtain shopper audits on L'Oréal Paris Makeup Genius, an AR flexible application (Yim et al., 2020). Female students from the University of Delhi were involved in the research. The representatives were given information about the L'Oréal Paris Makeup Genius application prior to the meeting, and the clients were told that they would be using it. Clients who downloaded and used the app received the queries, which were set up according to the investigation's intent. The following questions were asked to the participants of the sample in which an organized meeting protocol was used:

- 1. How would you characterize the idea of augmented reality during the COVID-19 pandemic?
- 2. What do you care about when you are sharing your profile photograph in web-based media?
- 3. Do you think L'Oréal Makeup Genius application is helpful? What sort of an advantage does it have?

4. What's your opinion on the validness of the pictures/sees utilized in app as well its effects on the purchase intention?

The sample size for the pilot study was six female students, and the sample size for the main study was 29 females between the ages of 20 and 30. We primarily targeted the younger generation (students and working professionals) because they are more conscious of AR technology. Snowball sampling is the approach used in this case (non-probability sampling convenience sampling method). The study included observing and testing the technology participants and follow-up interviews (lasting approximately 30 minutes).

The criteria of selection are: (1) regular clients who are willing to buy the commodities (intention to buy), (2) people who would like a little insight into the new commodity in the store (Loyal customers to check out the new product). Seven of them went once a week to the store, seven were travelling 11 times a month and fifteen went 12 times each six months with regard to how often they bought cosmetic. Try new technology L'Oréal Paris Makeup Genius in participant's laptops, iPads and apply each format for offline experiments and for environmental research along with a wealth of enhanced experience for the business. To see L'Oréal Paris Makeup Genius app compatible with mobile phones, computers and iPads etc.

Following were the statistical tools that have been used in this study.

Survey Monkey for Making the Questionnaire

Survey Monkey is one of the websites offering a wealth of questionnaires used to produce the questionnaire. We analyzed the entire questionnaire on the basis of a different questionnaire available on various cosmetic brands on other websites. To check the validity of the data we have discussed the questionnaire with the industry experts and the academicians. As suggested by academicians and industry experts we have made all the necessary changes and then finalized the questionnaire for further investigation (Yuen et al., 2020). This helps validate our survey.

WhatsApp & Telegram for Collected the Recorded Messages

We collected data via social media (WhatsApp, Telegram) and received feedback from participants via voice notes. All recorded messages were converted to EDI i.e., Electronic Data Interchange which provides the technical foundation for automated commercial conversations, internally or externally, between two entities. The term EDI covers the whole process of electronic data transmission, message flow, document format and software that are used for the interpretation of the document. This is how we interpreted the messages recorded, along with some of the feedback or reviews from the websites.

Cohen's Kappa Reliability Analysis

It is the tool used to measure reliability in inter-raters (and also reliability in intra-raters) for qualitative elements. The qualitative elements taken for this research were as follows: Buying intention of the customers, concept about Augmented Reality, consumer interface with L'Oréal application, sharing their profile photograph in web-based media, opinion on the validness of the pictures/sees utilized in app. The research paper on this COVID-19 pandemic is very important, in order to verify the accuracy of data we have used this procedure, the reliability analysis reflects that data are reliable for further research on the basis of the data we received.

The inductive process that is established (Corbin and Strauss 2008; Miles, Huberman and Saldana 2014) uses theme analysis. Data analysis begins with the preparation and fusion of the

data, followed by open-end and free initial analysis, inspection, source code and sub-codes identification. The code is refined and groups according to the original themes and category, although the data analyses are repeated three major issues were identified in additional analysis: improvement; betterment; improvement. Interaction; conduct. Those topics form the foundation for structural and speech presentations and discussions in the following years.

ANALYSIS AND INTERPRETATION

The specialist listed the two specialists to tune in to the sound records, read, and determine whether any sub-topics occurred or not independently of one another to give the reliability of the information obtained from the appropriate responses of the members. The knowledge in the meetings is coded using inductive examination; topics are found and deciphered. The evaluations of the specialists were tested with Cohen's Kappa dependability investigation to ensure the unwavering accuracy of the collected data. Because of the probability, K= (Agreement—Total number of concurring decisions)/ (Total number of decisions to be given—Number of corresponding adjudicators). According to Cohen's Kappa record index, interrater reliability was 0.7, and between 0.6 and 0.8 is considered "appropriate".

The Opinions on the Concept of Augmented Reality During Covid-19 Pandemic

With regard to the concept of augmented reality, 25-30 year old participants have generally emphasized a new understanding of reality that is developed through the computer world. They expressed their views on the concept of augmented reality, namely the creation of a virtual world by bringing together real world and computer products. This allows the virtual world to interact without disrupting ties to the real world. It is very rapidly developing technology. They able to get an idea of a product they like during your shopping by placing mobile screen in front of their face. It helps them to choose the lipstick shades if they are unsure what and how a particular shade will appear on them for the lipstick or blushes. During the COVID-19 pandemic, they felt that L'Oréal had implemented an excellent application because they know the brand and they have an experience of online purchase in real time.

The Opinions on Sharing Profile Photo on Social Media

It is a 21st century, the social media is regular in everybody's life as a result of. All the those who researched, as a result of the protection problems or privacy issue, they're not abundant fascinated by sharing their pictures on the social media, and even though their photos are shared within the social media, all security tools are employed by securing their profile. They do not care if it's natural, however you do not offer social media its natural look. They are attempting to share the images within which they appear beautiful in line with our observations, ladies don't seem to be really easy to share their profile on social media (Yang, 2020).

User Experiences on L'Oréal Makeup Genius Augmented Reality Application

Based on the observations of the messages recorded some the participants responded in this respect, Female were brand conscious, the kinds of advantages they were having while using this app that interface of the app was very easy, it was easily accessible to them. It is very convenient option for them while they are sitting at home. They like the application of Make-up Genius; they give all shapes and colors from eyebrows to lips everywhere. They assume that creating applications makes a private feeling intelligent while not being exaggerated. But they assume that exaggerated maquillages can lead to a private person having to imagine himself as something completely different and perceived by others as someone other than natural.

The Opinions on the Validness of the Pictures/Sees Utilized in App and Its Effects on the Purchase Intention

As per the recorded message of the participants we observed that, some participants responded through to the validity of the images in the app, that advertising is distraction and that it could be something similar to dictate to people. The credibility of the images used in advertising, albeit doubtfully with her opinion, is very vibrant and lively in the following words. These images should in fact influence people, raise awareness, and other people in these images should realize something of themselves. This helps in encouraging the buyers to purchase through the app.

FINDINGS

- 1. The results of this study revealed that in this pandemic, a buyer's experiential value in using AR to highlight when shopping Cosmetic products online is primarily determined by social media promotions, money, story experience, and presence.
- 2. Online retailers can create a component that is trustworthy, simple to use, connects with the client's experience, and creates appealing content.
- 3. By creating a constant video associating them with their object, innovation by media extravagance will enhance the client experience.
- 4. Retailers can increase customer satisfaction by including a feature that allows consumers to survey the screen.
- 5. Retailers will use 'influencers,' 'net idols,' 'You tubers,' or 'moderators' to record for inspecting the corrective products, then square measure can seem on the screen, permitting customers to do the item and see however another shopper would look in an exceedingly similar precise item.
- 6. Furthermore, this will assist retailers in having a better customer experience, allowing shoppers to make more informed and precise buying decisions and reducing shopper anxiety when purchasing an item on the internet.

MANAGERIAL IMPLICATION

The COVID-19 pandemic is causing many problems in the retail cosmetics industry, especially when the typical business mechanism is acting strangely and limits on vehicle mobility and people's movement are imposed. Because the retailer's concentration is on beauty and personal care products, adaptive tactics are used to assure product availability. Understanding the disruption in retailer supply is critical because without it, effective initiatives for improving online structure during COVID-19 cannot be developed. Indeed, a full understanding of effects is beneficial to managerial decision-making. This research looks into and describes how a beauty and personal care online platform came up with five techniques for managers to ensure that the business's product flow is uninterrupted via the internet. The following are the most important takeaways from the study's findings.

- 1. Business should focus on multi-brand products instead of relying on one brand to increase product sales through online apps or L'Oréal Paris Makeup Genius. Customers change their product usage habits based on certain brands. Different sorts of products from different brands, so that when the manufacturer is unable to supply items, retailers can sell items from other brands to meet the needs of customers, considerably decreasing the retailer's sales risks.
- 2. The director has to work with the company employees. This may be one of the best ways of being online and of dealing with current sales of cosmetic solutions. For a future commitment, mutual care, business advantages and progress are vital for successful collaboration amongst others when faced with challenges in managing the business. This situation can easily be handled online during the COVID-19 pandemic when worked together.

- 3. In the current crisis, managers can order a large number of products or order more products to fix product defects than before. Retailers can improve service levels by using this method. The company's product range is unaffected by safety inventories.
- 4. Retail shop managers must adopt new technology to boost customer loyalty. Retailers usually receive in person good customer feedback. The current pandemic may, however, lead customers to use the application for online shopping. Just sit in the house.
- 5. Managers must establish effective relationships and maintain frequent interactions via the Internet with individual customers. In this way, managers can understand in advance the product information and the product needs of the customers. This helps retailers to prepare quickly for every situation. Contact customers through social media or mobile phone communication. Managers can communicate with customers by calling or by sending useful e-mails for information exchange.

This global pandemic has posed many new challenges and risk types for companies to ensure product quality in shops and on the internet. The explanations provided in this research are prevalent issues with most shops' beauty and personal care products. The strategy to keep online purchases is important to prevent managers from responding to the existing situation and improving.

CONCLUSION

The aim of the study was to determine how Augmented Reality technologies alter people's perceptions of reality through a variety of notices in a COVID-19 situation. The L'Oréal Paris Makeup Genius Augmented Reality app showed that while cosmetics applications usually offer people a different appearance that is far from the facts, looking good through mobile apps gives people a surge of confidence. Pictures, as Jeff Wall has suggested, discuss a ground-breaking insight that shifts people's perceptions of themselves from people to half-breed personae, in which identity no longer resides in a single location, object, or entity.

The expert focuses more in this investigation on the influencing variables on purchasers' experiential worth toward using AR try out include while shopping for restorative products on the site. The surveys were sent out to online customers in Delhi NCR who had used augmented reality when shopping online. The client's experiential assessment would be increased if climate re-enactment and article replication will make the internet shopping experience appear to be more genuine. In this regard, the retail environment should be in sync with the shopping experience. AR may display the full body shape and dictions of online customers in front of a computer or specialized device screen.

The interviewees perceive AR as the wardens of a fake world imposed to people since AR circulates images between the virtual and the actual, views imprinted in the subconscious state give false happiness, and occasionally they create suspicions, even a little, on the facts. In the world of hyper reality, AR applications have an experience in which the virtual and physical become indistinguishable, and they make users kings and queens of material.

The results showed that the new, advanced technology was more exciting, interesting and enjoyable for the participants. They found that the interaction with the new technology was realistic and that the shop gained a better brand experience.

Orignality/Value

Augmented Reality (AR) technology, as a new and evolving innovation for consumers, should be focused on shoppers and their behavior and usage. During the pandemic, supermarket brands such as L'Oréal were impacted. If the pandemic continues for a long time, particularly as

customers are becoming accustomed to it, this innovation will become a critical component to note for purchasers purchasing measures for retail space. When the number of tablets and phones on the market grows, so does the number of Augmented Reality apps and possible outcomes for use in daily life. While augmented reality (AR) will be a boon to the retail sector in the coming years, its implementation in India is still limited. However, AR should be widely adopted by raising client awareness of the technology. It will assist the company in keeping customers and achieving deal goals through customer loyalty and creativity.

Limitation and Future Work

- 1. The Delhi NCR was covered so that research has not gone into broader prospects so the same study in other regions or states of India cannot be widened.
- 2. We took limited sample size. Due to the pandemic of COVID-19 we were not able to carry out large-scale research.
- 3. It is difficult to conduct face-to-face interviews during this COVID-19 pandemic and physically monitor them while using the L'Oréal Paris Makeup Genius in their own devices.
- 4. It is very difficult to send questions and get answers from the same source using voice memos, there are multiple communication barriers faced during the investigation.
- 5. Time consumption process, as the interviewees regularly followed up.

Conclusion

This should be accomplished by leading a huge concentration of absolutely decisive data from several distinctive geographical areas in India. That can enhance unwavering quality and outcome generalization. Another scheme for further review is to analyze different classifications of items, in order to clarify contrasts between categories of items that like augmented reality, also online. Such examinations could provide suggestions for online retailers about the kind of organizations and the cost-effectiveness of the augmented reality. However, such a study could also require a lot of time. In addition, it can well be employed as a premise for a substantial analysis of the impact of increasing reality on the Web, known to shoppers from diverse countries. Finally, since the review was initiated, the balance between augmented reality and risk insight and expectation could not be shown. It is recommended that in these lines, the hazard develop estimate which was used during the review be started and improved. Estimate errors can therefore be deleted.

REFERENCES

- Ariely, D. (2000). Controlling the information flow: Effects on consumers' decision making and preferences. *Journal of consumer research*, 27(2), 233-248.
- Azuma, R., Baillot, Y., Behringer, R., Feiner, S., Julier, S., & MacIntyre, B. (2001). Recent advances in augmented reality. *IEEE computer graphics and applications*, 21(6), 34-47.
- Azuma, R.T. (1997). A survey of augmented reality. *Presence: Teleoperators & virtual environments*, 6(4), 355-385.
- Baliyan, R. (2017), The impact of adversiting media strategy on consumer buying behaviour with special reference to FMCG proguets, *Gitam Journal of Management*, 15(4),28-3.
- Cho, H., & Schwarz, N. (2010). I like those glasses on you, but not in the mirror: Fluency, preference, and virtual mirrors. *Journal of Consumer Psychology*, 20(4), 471-475.
- Cicchirillo, V., & Drumwright, M. (2012). The Impact of Stereoscopic 3-D Advertising: The Role of Presence in Enhancing Advertising Effectiveness, *Journal of Advertising*, 41, 3, 117-34. Cicchirillo, V., & Drumwright, M. (2012). The Impact of Stereoscopic 3-D Advertising: The Role of Presence in Enhancing Advertising Effectiveness, *Journal of Advertising*, 41, 3, 117-34.

- Faust, F., Roepke, G., Catecati, T., Araujo, F., Ferreira, M.G.G., & Albertazzi, D. (2012). Use of augmented reality in the usability evaluation of products. *Work*, 41(1), 1164-1167.
- Jia, L., Yu, C., & Meng, W. (2009). The effect of negation on sentiment analysis and retrieval effectiveness. In Proceedings of the 18th ACM conference on Information and knowledge management, 1827-1830.
- Kumar, M.S., Raut, R.D., Narwane, V.S., & Narkhede, B.E. (2020). Applications of industry 4.0 to overcome the COVID-19 operational challenges. *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 14(5), 1283-1289.
- Lin, Q., Zhao, S., Gao, D., Lou, Y., Yang, S., Musa, S.S., & He, D. (2020). A conceptual model for the coronavirus disease 2019 (COVID-19) outbreak in Wuhan, China with individual reaction and governmental action. *International journal of infectious diseases*, 93, 211-216.
- Pantano, E., & Servidio, R. (2012). Modeling innovative points of sales through virtual and immersive technologies. *Journal of Retailing and Consumer Services*, 19(3), 279-286.
- Papagiannidis, S., Pantano, E., See-To, E., Dennis, C., & Bourlakis, M. (2017). To immerse or not? *Experimenting* with two virtual retail environments. *Information Technology and People*, 30(1), 163–188.
- Rogers, Y. (2004). New theoretical approaches for human-computer interaction. *Annual Review of Information Science and Technology*, 38, 87-143.
- Solomon, M.R. 2007. Consumer Behaviour Buying, Having, and Being. 7th edition. Pearson Education Inc. *Upper Saddle River*.
- Verhagen, T., Vonkeman, C., Feldberg, F., & Verhagen, P. (2014). Present it like it is here: Creating local presence to improve online product experiences. *Computers in human behavior*, *39*, 270-280.
- Williamson, J., Zauner, J., Haller, M., Brandl, A., & Hartman, W. (2003). Authoring of a mixed reality assembly instructor for hierarchical structures. *International Symposium on Mixed and Augmented Reality*, 237-246.
- Yang, H.L. (2020). Retailer's ordering policy for demand depending on the expiration date with limited storage capacity under supplier credits linked to order quantity and discounted cash flow. *International Journal of Systems Science: Operations and Logistics*.
- Yim, M.Y.C., Drumwright, M., & Cicchirillo, V. (2012). How advertising works in new media: Consumer media experience model. In *Proceedings of American Marketing Association at its Annual Summer Marketing Educators' Conference. Chicago, IL*.
- Yuen, K. F., Wang, X., Ma, F., & Li, K. X. (2020). The psychological causes of panic buying following a health crisis. *International journal of environmental research and public health*, 17(10), 3513.