

The dark side of retailers regarding digital growth strategies: an exploratory study on augmented reality perception

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Abstract

Purpose of the paper: *The present paper aims to investigate retailers' perception of immersive technology (e.g. augmented reality) to create new growth strategies to expand and internationalize business.*

Methodology: *This study adopts a qualitative approach, based on a multi-case study methodology. Nine Italian SMEs operating in the furniture and interior design sector were interviewed. After transcribing and translating the interviews, they were coded using an inductive approach.*

Results: *This study shows that Italian SMEs still have little exposure to the knowledge of technologies, and thus a higher resistance to adopting digital growth strategies in their business.*

Research limitations: *This study is exploratory in nature and based on a sample of nine SMEs in the Italian cultural context. Therefore, further research could extend our findings, by carrying out a cross-cultural analysis in comparison with other countries.*

Practical implications: *This study highlights the importance for SMEs to understand and introduce digital growth strategies to create competitive advantages on the market and an enhanced experience for consumers. Using technologies, SMEs should be able to maintain a growth orientation with a high level of networking with international corporations to be more flexible towards market advancements and changes.*

Originality of the paper: *This paper provides an original view on retailers' perception of immersive technologies to create digital growth for SMEs, by highlighting some new challenges that SMEs must face to successfully compete in a digital scenario.*

Key words: augmented reality; immersive technologies; retailing; perception; digital strategies; growth

1. Introduction

Digital technologies' introduction has changed all types of interactions between consumers and retailers (Poushneh, 2018; Pantano *et al.*, 2017), thus enhancing the use of different channels for purchases (Verhoef, Kannan and Inman, 2015). In this way, retailing has integrated online into physical space as a new strategy to shape long-standing boundaries between the two channels (Beck and Rygl, 2015; Barlow, Siddiqui and Mannion, 2004), moving from a multi-channel to an omni-channel retailing model (Rigby, 2011).

In the academic world, consumers' perception has been analyzed under different aspects such as consumers' perception of store attributes (Morschett *et al.*, 2005; Phillips *et al.*, 2011), innovativeness (Lowe and Alpert, 2015) and shopping experience in physical stores (Oppewal and Timmermans, 1999; Dholakia and Uusitalo, 2002), but little is known about retailers' perception of digital technologies as new growth strategies in business (Naldi and Achtenhagen, 2011; Lee *et al.*, 2019).

On this point, some scholars like Cruz *et al.* (2019), Scholz and Duffy (2018) and Baier, Rese and Schreiber (2015) started to present some examples of big companies (i.e. Sephora and Ikea) that introduced immersive technologies to adapt their business to this new type of shopping experience (Hilken *et al.*, 2018), but did not investigate how retailers perceive this adoption of disrupted strategies as tools to promote and enhance their business in term of revenues and sales.

In addition, the advent of the Internet and advanced technologies have shaped entry boundaries in international market even for the smallest enterprises (Hervé, Schmitt and Baldegger, 2020; Bell and Loane, 2010). This aspect is particularly interesting if contextualized within a worldwide scenario dominated (by about 90%) by small and medium enterprises (SMEs) (World Bank SME Finance, 2020) that have limited financial resources to compete against bigger companies (Sinkovics and Sinkovics, 2020; Hamill and Gregory, 1997). As a result, first the Internet and then new immersive technologies (such as augmented reality, AR) are opening and improving communication with foreign customers and suppliers, thus creating new digital growth strategies (Chattel, 2016). In particular, AR feature two important aspects in terms of internationalization of business: on one hand, it lets enterprises easily show their products virtually, thus avoiding travel costs (e.g. for trade fairs) and the physical barriers that are typical of e-commerce; on the other hand, it promotes the enterprise image as an innovator in both national and international markets (Penco *et al.*, 2020). Thus, this paper aims to investigate retailers' perception in adopting immersive technologies to create new growth business strategies, as advanced technologies help to underpin new internal know-how and technological skills (Bell and Loane, 2010). This is particularly important in order to increase the growth of smaller enterprises within a more competitive and digitalized market scenario.

To reach this goal, the first part of this paper analyzes Rogers' (1995) innovation-decision process theory and AR adoption in retailing to increase business. Then, the second section investigates retailers' perception of AR through a case-study methodology. The paper ends by highlighting its main theoretical and managerial contributions, considering its main limitations and providing suggestions for further research.

2. Literature review

2.1 Innovation-decision theory

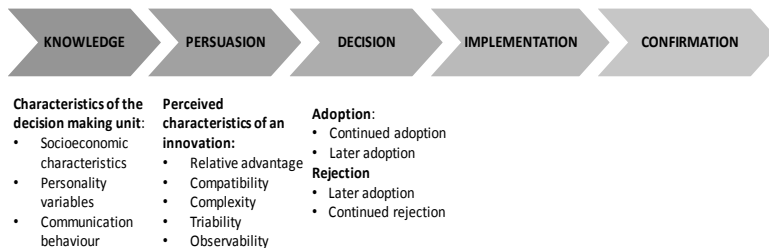
Innovation-decision theory divides the individual decision-process on the adoption on technologies into five stages (Figure 1): knowledge,

persuasion, decision, implementation and confirmation (Rogers, 1995; Rogers and Shoemaker, 1971). In this model, Rogers and Shoemaker (1971) aimed to understand how new ideas, processes, and products spread within and across organizations (Lundblad, 2003). Here knowledge is defined as the individual's exposure to a message concerning innovation (Hassinger, 1959). Normally the predisposition of an individual towards these kinds of messages depends on personal interests and leads to a selective exposure (Rogers, 2002).

Persuasion is the individual's mindset towards an innovation. Thus, individuals firstly refer to their personal experiences to develop a favorable or unfavorable attitude towards the innovation.

Then, the decision stage consists in the engagement of individuals in activities capable of making them adopt or reject the innovation (Sahin, 2006). So, if individuals decide to adopt a new technology, the next step will consist in implementation. Notwithstanding this adoption, individuals still feel uncertainty in using it. Thus, additional information on the technology's usage could assist clients in the beginning of the implementation process. Finally, the last step refers to confirmation, which means searching for further information to validate the choice to adopt the new technology (Mason, 1962). Here individuals search for additional information to reinforce their decision to adopt the innovation. This behavior could be explained by the internal disequilibrium of the human being (Rogers, 2002).

Fig. 1: A Model of the Stages of the Innovation Decision Process



Source: Adapted from Rogers & Shoemaker (1971)

In this theory four main elements are highlighted: innovation, communication, time and social system. According to Rogers' theory (1995) innovation is an idea, a procedure of a system perceived as new by whomever is adopting it. It is not required to have been recently developed, but it just needs to be perceived as new by the adopter. The second element is communication, which is the process by which people receive and share information to achieve common understanding. In this model, communication has an important relationship with the rate of adoption: adoption is higher when the source of information is similar to that of the potential adopter (Rogers, 1995). Time is a primary element in Rogers' theory: as a matter of fact, it is related to awareness of the innovation: first potential adopters become aware of the innovation, then they will adopt it.

Innovation therefore tends to follow a S-shaped curve, where only a few individuals initially adopt the innovation and, as time goes on, the rate increases (Lundblad, 2003). All innovations are placed within a social system, sharing a common goal or objective. Studies have shown that the involvement and sharing of an innovation contributes to its subsequent adoption (Lundblad, 2003).

Hence, this model is particularly useful to depict individual perceptions on new strategies passes from their awareness and knowledge before the adoption on digital strategies in business. In this study, we refer to perception as a process where an individual is exposed to, selects, organizes and interprets stimuli (Morshett *et al.*, 2007). In this definition, specific emphasis is given to “interpretation”, where an individual relies on personal experience to create his or her own idea on a new external stimulus (Schiffman and Kanuk, 2009). This is particularly interesting if this definition is contextualized during the first two phases of the process, i.e. knowledge and persuasion, when consumers firstly experience the technology (Hassinger, 1959; Roger, 1995; Schiffman and Kanuk, 2009).

Thus, we believe that the innovation-decision model could depict a clearer picture of retailers’ perception of new digital strategies using technologies in-store and their awareness of and knowledge on digital growth strategies for business by investigating the preliminary knowledge and persuasion phases of Rogers’ model:

RQ1: To what extent are enterprises conscious of immersive technologies growth strategies?

2.2 Augmented reality as a smart growth tool

Innovations are changing the game of retailing, by enhancing consumers’ in-store shopping experience with digital content (Grewal, Roggeveen and Nordfält, 2017). The introduction of in-store digital strategies revolutionized retailers’ work starting from the early 2000s, when retailers introduced new technologies in both physical and online stores as digital drivers of business growth, thus offering a more digitized environment for consumers within an omni-channel context (Pantano, 2010; 2015; Vanheems, 2015). The emerging of Industry 4.0 strategies has stimulated knowledge revolution, bringing about dramatic changes thanks to the rapid and massive advance of technology (Chew, 2013). This revolution has proposed new business models and organisation management infrastructures, thus improving knowledge management development in enterprises (Bejinaru and Iordache, 2010). By using digital tools, the organization co-creates new knowledge networks with both internal staff and the external environment (e.g. universities, consulting firms, associations) (Costa and Monteiro, 2016; Băeșu and Bejinaru, 2020). In terms of smart growth, many expectations are placed on immersive and mobile technologies, where the Internet is perceived as a new driver of growth on a global scale (Komninos, 2016).

More specifically, the introduction of the Internet in business has offered direct and indirect opportunities of foreign market entry for both big and small enterprises (Hervé *et al.*, 2020; Bell and Loane, 2010).

As a matter of fact, the Internet has improved communication with foreign consumers and suppliers, and it has enhanced the possibility of generating new market segments abroad (Sinkovics and Sinkovics, 2020; Hamill and Gregory, 1997). Thus, enterprises have created a “space-place” environment, where parts of their organization, such as websites or social pages, are online (space), while others, such as offices or warehouses, are offline (place) (Monaghan, Tippmann and Coviello, 2020).

With the advent of pervasive and immersive technologies, enterprises have provided consumers with the opportunity to enhance their experience abroad. As a matter of fact, by using tools such as AR, consumers do not need to touch or see the physical product, but just visualize the item virtually by using a smartphone, a tablet (AR), or a visor to live a 3D experience (virtual reality, VR).

Hence scholars and practitioners consider AR as a prominent immersive technology, whose potential adoption in the next few years will offer consumers a more enhancing experience than the traditional one (Bettucci *et al.*, 2016; Grewal *et al.*, 2017; Perkinscoie report, 2020).

More specifically, due to its low cost of implementation, AR could also be a valid solution to enhance business growth (Ginters and Martin-Gutierrez, 2013) for SMEs, which dominate the Italian economy (Banca IFIS, 2018). In fact, the creation of an omni-channel strategy using AR could lead to two important outcomes: (i) the overcoming of the physical barriers that are typical of e-commerce, thus creating a virtual fitting room where products may be tried before shopping (Bettucci *et al.*, 2016) and (ii) the speeding up of consumers’ search for information and feedback on a product, thus allowing the company to guarantee greater transparency on the product throughout the supply chain (Penco *et al.*, 2020)

In this third wave of IT-driven transformation (the Internet of Things and smart connected products) (Porter and Heppelmann, 2014), AR assumes a “positive” function as an interactive and persuasive technology (Grzegorzczak *et al.*, 2019), that could be particularly attractive in an omnichannel retailing experience, facilitating consumers’ gathering of information while shopping (Hilken *et al.*, 2018). This is made possible by involving computer-generated virtual images on reality and letting consumers interact with virtual contents in real time (Dey *et al.*, 2018). So, boundaries between online and offline are blurred (Huang and Liao, 2015) and consumers can live an embedded, embodied and extended experience (Robbins and Aydede, 2009; Semin and Smith, 2013). Here enterprises gain specialized knowledge on technology, thus creating new business growth opportunities thanks to the involvement of consumers and users in the co-creation of the new shopping experience (Reichwald *et al.*, 2004).

The second approach analyzes AR as a disruptive tool for companies’ business that triggers significant changes in consumer behavior and industry dynamics (Spreer and Kallweit, 2014).

Previous studies have argued that the digital business transformation is providing insights into how all sectors are responding to the disruption of conventional business models and practices by digital technologies (Networked Society Lab, 2014a, 2014b, 2014c; Merisalo *et al.*, 2013). As a result, the online world is pushing companies to reorganize their business

strategies to grow in a new market, where traditional practices (e.g. outsourcing, innovation, distribution, transactions) should be redefined in new digital business (Komninos, 2016).

From this perspective, AR could destroy the dominance of traditional in-store promotions and packaging (Hilken *et al.*, 2018) by using the superimposition of contents and enhancing the traceability of and information on products, along with consumers' in-store experience (Penco *et al.*, 2020; Spreer and Kallweit, 2014).

Notwithstanding these interesting insights, companies are not yet ready to apply a successfully digital experience in-store using AR (Hilken *et al.*, 2018). Here, the lack of knowledge on generated profits with the introduction of AR in companies' business (Bonetti *et al.*, 2018), the scarce promotion of this tool when employed (Zagel, 2016) and consumers' level of knowledge and cognitive innovativeness play an important role in companies' adoption of AR (Bejinaru and Prelipcean, 2017).

In addition, companies are slow to implement omnichannel strategies in the effort to revisit traditional business models. In fact, adopting an omnichannel strategy requires certain elements such as the creation of a unique view of customers regardless of the channel used (online or offline), data management to create customized offers (short-term perspective) and for strategic analysis (long-term perspective), the review of the key performance measurement system to support the new strategy without the risk of the emergence of conflict with channels that were perceived by retailers as secondary (Bettucci *et al.*, 2016). These elements require time to restructure the business, and qualified personnel to manage and monitor each phase.

As a result, in considering all these difficulties and companies' lack of propensity towards the introduction of new technologies, their readiness and support of adoption remain quite low (Markus, 1983).

Thus, the following research question comes up:

RQ2: *What are the motivations to adopt AR as a smart growth tool in retailing?*

3. Methodology

The present study adopted a qualitative approach with the view of contributing to the extension of the scientific debate on retailers' perception on immersive technology adoption.

Based on a multiple case-study methodology (Eisenhardt, 1989), this study analyzed 9 enterprises in the furniture and interiors sector. We opted for the case-study methodology, because it enables researchers to investigate *how* and *why* questions (Yin, 1994) and explore new processes and behaviors that are still little understood (Hartley, 1994). Moreover, it allows information, which could be difficult to gather using other qualitative methods, to be accessed (Sykes, 1991). We therefore collected data on 9 small medium enterprises (SMEs), to create a generalization of the results (Eisenhardt, 1989).

3.1 The sampling criteria

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We examined a homogeneous sample of 9 Italian SMEs to minimize variation between cases, thus simplifying and focusing our analysis (Shakir, 2012) according to specific sampling criteria (Eisenhardt, 1989).

In Table 1 we briefly describe the sample of interviewed SMEs, with the aim of allowing the reader to comprehend the sample of our study more in depth. All companies are small or medium in size in terms of revenues, retailers in the furniture and interiors sector and based in the Piedmont region (Northern Italy). In fact, this region has stood out for its growing reputation in digital technologies since 2016, when Turin was nominated as a Smart city (Crivello, 2015). Moreover, a report by Banca IFIS (2018) states that there are 760,000 small and medium enterprises (SMEs) in Italy, i.e. 76% of the total amount of companies (996,000). 86% of them are classified as micro-enterprises detaining a turnover of less than 2 million euros. Our sample is therefore representative of the Italian furniture and interiors market.

Tab. 1: The sample profile

Enterprises	Year of Foundation	Revenue	Number of Employees	Type of market	Geographical market
Enterprise 1	1975	3,000,000 €	16	B2C	Italy
Enterprise 2	1952	2,200 €	5	B2B	Italy
Enterprise 3	1950	440,000 €	2	B2B and B2C	Italy
Enterprise 4	1968	2,000,000 €	14	B2B and B2C	Italy
Enterprise 5	1961	1,000,000 €	8	B2B and B2C	Italy
Enterprise 6	1980	1,850,000 €	10	B2B and B2C	Italy
Enterprise 7	2009	2,100,000 €	13	B2B and B2C	Italy, Egypt, Algeria, Russia, France, Portugal, Switzerland.
Enterprise 8	1983	3,000,000 €	50	B2B and B2C	Italy and France
Enterprise 9	1950	2,000,000 €	3	B2B	Italy, France, Switzerland

Source: authors' elaboration

In addition, we selected enterprises from the furniture and interiors sector because it is constantly updated in terms of software and technologies to enhance consumers' experience (Siltanen and Woodward, 2006; Irawati *et al.*, 2006). Finally, only three of them have internationalized their business (Enterprises 7, 8 and 9).

3.2 Data collection

This study followed a two-step method. Firstly, we conducted an investigative analysis on different secondary sources, such as official communication tools (i.e. official websites), documentary information and social network pages (e.g. Facebook and Instagram). In this manner, we determined the relevance of these enterprises with the greater information at our disposal to create an interview protocol. The second phase consisted in developing semi-structural interviews for managers who are responsible

for marketing strategies. As a matter of fact, interviews are a great way to “open a window” to achieve research objectives and collect more detailed data on perception (Abell *et al.*, 2008).

The interview protocol was divided into four sections: the first section aimed to understand the in-store use of digital technologies, along with retailers’ perception of their adoption; secondly, we analyzed the effective adoption of augmented reality in retailing to investigate to what extent retailers are willing to use this kind of technology. Then, the third section analyzed retailers’ perception on digital growth strategies as well as breaks and problems in their adoption when present. The last section collected data on the demographical characteristics of the interviewees.

The interviews collected between January 2019 and July 2019, each lasted around one and a half hours, and were tape recorded. Then, we transcribed them and translated them into English.

3.3 Measurement scale

The inductive and iterative process (Miles and Huberman, 1984; Strauss and Corbin, 1990) was at the base of our data analysis. Interviews transcripts were manually coded following the five phases of technological adoption described by Rogers and Shoemaker (1971).

Simultaneously, we measured the level of knowledge and persuasion based on Rogers’ model (1995) to depict retailers’ perception on digital technologies to enable their business to grow. More specifically, we classified the knowledge of the outcome as: (1) absent (the SME was not exposed to innovations), (2) weak (the SME experienced primordial exposure to innovations), (3) moderate (the SME knows about the innovation but had some reservations about adopting it), (4) strong (the SME knows about the innovation and is willing to adopt it). Persuasion was classified as: (1) absent (the retailer presents totally an unfavourable attitude towards adopting technologies), (2) weak (the retailer prefers traditional business models to digital ones, even though it acknowledges the usefulness of digital channels), (3) moderate (the retailer shows interest in adopting technologies but has not implemented them), (4) strong (the retailer has a favourable attitude towards adopting technologies due to prior experience).

In the end, we triangulated the primary and secondary sources to identify deeper theoretical foundations (Hartley and Sturm, 1997).

4. Empirical findings

4.1 SMEs’ knowledge on digital technologies

Our study confirms limited awareness of digital growth opportunities, due to scarce retailers’ involvement in new technologies (Reichwald *et al.*, 2004).

More specifically, five companies out of nine demonstrate a low rate of adoption of immersive technologies as a new tool for growth. These SMEs

have little knowledge on technological tools, having been occasionally exposed to primordial digital strategies without any success. For this reason, these companies maintain a high degree of skepticism in revisiting traditional strategies and considering the implementation of new forms of growth for the business:

“I have heard about AR technology, but I don’t think it could be useful for us” (Manager of Enterprise 3, 39 years old).

“(…) our consumers prefer to interact with real vendors” (CEO of Enterprise 4, 49 years old).

“We don’t use mobile apps. There are billions of apps. If I make an application, I cannot expect a customer to download it” (CEO Enterprise 5, 56 years old).

“Ignorance is the biggest obstacle to the adoption of new digital strategies. This ignorance is both that of those who suffer from technology as I do and that of those who propose it, because while they are capable, they do not have the humility to explain what to do in simple words, because they have lived in their world for many years, and when they have to explain that world in simple words they are no longer able to do so” (CEO of Enterprise 8, 50 years old).

From these statements it is clear that retailers are a little resistant to introduce AR or other digital tools in their business for two main reasons: (a) lack of preparation on technologies and (b) reduced involvement of consumers in new digital technologies and reluctance to use these tools in-store as suggested by the literature (Serravalle, Vanheems and Viassone, 2019).

Only three out of the nine enterprises of the sample have a strong degree of knowledge on digital technologies, having been positively exposed to them in the past, and therefore decided to adopt them. Two of them (E9 and E6) used immersive technologies (QR-Code and Virtual Reality) as a new digital strategy to enhance sales, reduce time, and enhance consumers’ in-store experience.

“We allow our consumers to wear a visor so that they can walk around in their virtual kitchen and imagine it already assembled. It feels like you are already there. (…) With immersive technologies marketing campaigns almost 97% of cases turn into sales” (Manager of Enterprise 6, 31 years old).

“By now we often use the QR-Code for a whole series of codified products. As a result, consumers can scan codes to see all the possible finishes in the selected product” (Manager of Enterprise 9, 27 years old).

4.2 Retailers’ persuasion

As previously mentioned, the interviews showed very limited knowledge on AR and immersive technologies, so their application is also rare and remains in a primary stage. The most used digital tool is the QR-Code, which speeds up communication with consumers, especially if the enterprise is not so well-known:

“In our experience, the QR-Code is useful to simplify the visualization of our products, thus facilitating access to their visualization” (Founder of Enterprise 7, 40 years old).

Referring to persuasion, these enterprises demonstrated a cultural mindset inclined toward innovation. Resistance to change is high for the interviewed SMEs due to two main reasons: (i) lack of support of new strategies without the emergence of internal conflicts between channels:

“The difficulty for a small business is to be known by consumers. So, sometimes it seems that changes make something more difficult instead of easier” (CEO of Enterprise 4, 49 years old).

and (ii) the effort of implementing a unique view of business regardless of the channel:

“AR is a useful tool, but it cannot replace other business tools (attention to customer needs, knowing how to listen, presenting the physical store in an updated way, ...). Thus, AR is an additional tool that could increase value over time but cannot be a substitute for all the abovementioned elements of the business” (CEO of Enterprise 2, 42 years old).

“I hope AR will not increase purchases on internet at the expense of in-store ones” (Manager of Enterprise 1, 39 years old).

Notwithstanding, some retailers recognize the role of digital strategies as a useful tool to enhance consumers' experience with the virtual fitting that offer a more vivid experience for consumers, who will express a positive attitude towards the business, as well as a facilitating engine to enhance business speed and consumers' return:

“I see AR being particularly useful in the furniture sector. Here the products are real, you can change their color, and you can immediately try on the products” (CEO of Enterprise 4, 49 years old).

“Digital strategies have made it possible to optimize time, work and therefore also increase the amount of work that can be done. Today thanks to these technologies, we can support multiple projects at the same time” (Manager of Enterprise 9, 27 years old).

“Adopting digital strategies would certainly make consumers more willing to buy a second time due to the ease with which a personal need is satisfied” (Founder of Enterprise 7, 40 years old).

Therefore, AR's usability enhances consumers' familiarization with products and the SME's image:

“The QR-Code can facilitate access to the display of our products (...). In the near future these technologies will be almost indispensable because they are very useful to facilitate sales and make sure that our business is always visible and taken into account when it comes to buying a product belonging to our product category” (Founder of Enterprise 6, 31 years old).

“When consumers observe that a company is introducing digital strategies, they perceive a higher degree of organization in the business. Thus, the enterprise image grows” (CEO of Enterprise 4, 49 years old).

5. Discussion of results

The introduction of digital strategies is shaping all boundaries in traditional businesses, thus enhancing consumers' experience while shopping and increasing retailers' growth on the market (Rigby, 2011; Renko and Druzijanic, 2014). Indeed, digitalization has destroyed all

geographical boundaries between markets and brought great potential to internationalization processes (Penco *et al.*, 2020). Notwithstanding, in the Italian context SMEs still display a high degree of reticence in using digital strategies in their business. The principal reason that emerges from the results of the study lies in the lack of deep knowledge about immersive technologies, which are perceived not as a tool for growth, but as a possible threat for the enterprise's market position and professionalism ("*our consumers prefer to interact with real vendors*" Enterprise 4). As a matter of fact, according to the interviewed retailers, immersive technologies destroy vendors' professionalism, giving consumers a sense of independence in their choice of products. Other enterprises believe that digital strategies could destroy growth if they are not well implemented in the business due to a low level of knowledge of the tool or low level of consumer involvement because customers prefer traditional purchases and interaction with vendors ("*I don't think AR could be useful for our business*", Enterprise 3).

From this perspective, in the Italian context of SMEs there is still a lot of work to do before fully comprehending of digital growth strategies and the following in-store adoption (Hilken *et al.*, 2018). For this reason, we believe that retailers' perception on the incoming adoption of technology in businesses is still fragmented, even if some of them partially perceive technology's usefulness and have just started to introduce it in their business (Inman and Nikolova, 2017) ("*In our experience, the QR-Code is useful to simplify the visualization of products*", Enterprise 7), even if enterprises still haven't perceived benefits suggested by the literature such as lower costs, higher traceability (Penco *et al.*, 2020), the internationalization of products (Marcoz *et al.* 2016), new marketing experiences, and extended customer engagement (Bonetti *et al.*, 2018; Spreer and Kallweit, 2014; Pantano, 2015).

Thus, this study confirms the importance of knowledge exposure as suggested by Rodan and Galunic (2004) in improving and accepting digital strategies in business (Rodan and Galunic, 2004). As a matter of fact, as has been demonstrated by our data, when enterprises have limited exposure to the knowledge of a technology their resistance in introducing digital growth strategies in the business will be greater. Secondly, the level of risk taken by Italian SMEs is low. This is due both to the abovementioned lack of technology knowledge and the low technological involvement that is typical of a traditional country like Italy (Boccardelli *et al.*, 2007).

As a matter of fact, according to Hofstede's cultural compass (2011), uncertainty avoidance is still high in Italy. Such a compass measures a 75% rate of uncertainty avoidance in Italy, which means that Italians prefer low risk situations (Hofstede Insights, 2019). To adopt innovations, risk should be high and adopters should seek out and embrace uncertainty (Lundblad, 2003).

Thus, in this context enterprises believe that the effort and the risk that are necessary for the adoption of these tools is too high compared to the possibility to enhance business growth by using digital strategies (RQ1).

Some enterprises, which have a higher level of knowledge and exposure to innovation, have introduced some primordial AR tools, such as the QR-Code, but still have no idea of all the potential uses of these instruments for their business growth. By now, retailers have decided to introduce digital

growth strategies to enhance consumers' in-store experience, co-creating value in terms of shopping experience, increasing sales (*"technologies are useful to facilitate sales"*, Enterprise 6; *"Digital strategies have made it possible to optimize time, work and therefore also to increase the amount of work that can be done. Today, thanks to these technologies, we can support multiple projects at the same time"*, Enterprise 9) and consumers' return (*"Adopting digital strategies would certainly make consumers more willing to buy a second time due to the ease with which a personal need is satisfied"*, Enterprise 7) (RQ2). To be more motivated to adopt immersive technologies, enterprises need information such as the profits that can be generated with the introduction of AR in business (Bonetty *et al.*, 2018). In this manner, they can implement their promotion around the introduction of this technology as a new service for consumers. As a result, the value of the company image as a high-tech enterprise increases and it can position in the market itself as an innovator (*"When consumers observe a that business is introducing digital strategies, they perceive a higher degree of organization in the business. Thus, the enterprise image grows"*, Enterprise 4) (Rogers, 1995:2010). Unfortunately, at the moment, little technological information is available to SMEs that maintain a low degree of adoption (*"Ignorance is the biggest obstacle to the adoption of new digital strategies"*, Enterprise 8).

6. Conclusion and final remarks

This paper has outlined an analysis on how retailers perceive digital growth strategies adoption in an omni-channel environment.

The presented data show how the retailing sector will undergo some changes over the next few years: (i) on the retailers' side, emerging awareness of digital growth strategies will push retailers to their enhance knowledge on immersive technologies, realizing the benefits for their business and creating *ad hoc* strategic innovation plans; (ii) consumers' involvement in immersive technologies (e.g. AR, VR) will enhance their willingness to use these tools while shopping, thus demanding greater tech-skilled professionalism by vendors.

From a theoretical point of view, we expanded the AR marketing literature by providing insight on retailers' perception on digital technologies to grow their business by applying Rogers' innovation-decision model (1995) to depict Italian SMEs' adoption of digital strategies.

From a managerial standpoint, the data confirmed that Italy is a country with many inhibitors in introducing digital strategies in business due to its traditional organization mindset (Hofstede Insights, 2019). As a matter of fact, SMEs have a high rate of uncertainty avoidance and a low propension towards risk taking. This aspect makes SMEs reluctant to innovation and its in-store adoption, but not to the idea of innovating, which seems interesting to them but not suitable for their business growth. Regarding retailers, the introduction of digital growth strategies using immersive technologies in business would have three main implications: (i) the creation of an in-store virtual environment to enhance consumers' willingness to repurchase after an involving experience; (ii) the building of new high-tech competencies combined with new selling activities by

means of new digital tools; (iii) the creation of competitive advantages on the market and resulting revenues growth. In this emerging disruptive scenario, SMEs should maintain a growth orientation with a high level of networking with international companies to be more flexible towards market advancements and changes.

Notwithstanding these interesting results, our research is not exempt from limitations. First of all, our study is exploratory and analyzed a sample of nine SMEs in the Italian context. Further studies could investigate a larger sample of enterprises that are active in different sectors of the 4Fs of the “Made in Italy” brand to verify whether if there are any differences or similarities with these results. Secondly, the analysis could be extended abroad by comparing the Italian and French mindsets, as they are very similar in relation to some of the six dimensions of Hofstede’s country compass (2011).

In addition, these data were gathered before the COVID-19 outbreak. During this pandemic emergency, enterprises had to effort the lack of physicality, due to restriction measures as the lockdown, and the sudden disruption of consumers’ demand created by panic buying (Pantano *et al.*, 2020) due to the “scarcity effect” of products (Hamilton *et al.*, 2019). As a result, enterprises have experimented with new business solutions by implementing online services, such as home delivery and virtual queueing (Pantano *et al.*, 2020). After the lockdown, many consumers kept using those new channels never adopted before. The pandemic experience has shown SMEs that to survive and for their business growth they need to embrace tech solutions (such as AR), including those they were not yet familiar with, more than ever. Thus, further research could expand our findings by investigating the effects of the COVID-19 outbreak on the introduction of advanced technologies in business as survival or growth digital strategies.

Finally, the study could expand the sample to include bigger companies and investigate into their perceptions on digital strategies’ adoption and their awareness on digital technologies.

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