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Contents

Letter from Editor	1
David López. Managing Editor.	
Sustainable Rural Tourism Management: Upgrading eco-friendly and self-sustainable hotels in Costa Rica	2
Tom Okot. Professor and Head of Business Administration Department. Latin American University of Science and Technology.	
Jorge Sanchez Quiros. MBA. Latin American University of Science and Technology.	
Carlos Castro Mejía. MBA. Latin American University of Science and Technology.	
Promoting Hospitals' Reputation through Social Media and Artificial Intelligence	15
Pablo Medina Aguerrebere. Assistant Professor. Canadian University Dubai. United Arab Emirates.	
Eva Medina. Researcher. University of Alicante. Spain.	
Toni González Pacanowski. Full Professor. University of Alicante. Spain.	
Implications of the COVID-19 Pandemic in Retail SMEs Business Management	29
Javier Lorente-Martínez. Lecturer. UNED University. Senior Consultant at Ediacara Consulting. Spain.	

New coordinates regarding the Internet of Things**41**

Patricia Vargas Portillo. Senior Lecturer. ESIC University. ESIC Business & Marketing School. Spain.

Letter from Editor

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As the Washington Post recently pointed out, there is no doubt that we will live in a different world after the pandemic. It is likely that many of the changes driven by the coronavirus pandemic are permanent. When it ends, we will have a new normal that will look different from the way we lived before. It is quite possible that nothing will be the same.

Technology has led to countless disruptive changes in many areas of daily life. New technologies have proven to be a priority; for example, they allow people to work, make purchases and study using the internet. It is likely that many people will continue with the habits they have acquired since March 2020. Competent companies and workers will move ahead, and others could be left behind. Economic inequalities could deepen unless they are vigorously addressed. Naturally, the pandemic has affected the performance of companies beyond its impact on the daily lives of employees; the pandemic has also caused extraordinarily rapid changes in some consumer habits.

The shared challenges of the pandemic will change societies and the world as a whole, as did the Great Depression and the World Wars. The damage that has been done is already evident, but so is a hopeful resilience. We will certainly be a different society in the future, but we will also be stronger.

Since last year, HDBR has encouraged the publication of research on numerous current issues related to the coronavirus pandemic. In fact, a recent issue focused on the effects of COVID-19 on entrepreneurship.

In this issue, authors from various countries provide current, interdisciplinary works that will not leave the reader indifferent. I want to express my enormous gratitude for the advances that the journal is leading in various areas, such as the presence of new databases, greater international visibility, the increasingly significant participation of notable academics from more countries and the increase in citations in the main databases with a worldwide scope.

Sustainable Rural Tourism Management: Upgrading eco-friendly and self-sustainable hotels in Costa Rica

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Abstract

Rural tourism represents a social innovative approach with a goal to conserve natural biodiversity where local communities showcase their cultural heritage and biodiversity. Though, it entails more than just visiting an all-inclusive hotel, it requires a holistic business approach that is conscious of the current tourist market demands. These approaches must make the best use of internet-connected gadgets to transmit data, which is translated into transformative actions, with the objective of improving systems adaptability. However, in Costa Rica, tourism accounts for over a quarter of its total export revenue, especially ecotourism as the most significant form of economic tourism activity. This research analyzes the administrative model of eco-friendly-self-sustainable hotels in rural areas of Costa Rica. Additionally, rural tourism also helps to protect the environment and improve livelihoods of communities. Costa Rica has enormous and innumerable opportunities to develop eco-friendly tourism. There are many reasons why we can think of developing this kind of business within the country's strategic development plans, such as geographical location, natural resources, social and political factors.

Key words

Sustainability management, Rural tourism, Green hotels, Environmental certifications, Costa Rica.

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1. Introduction

Costa Rica is a very small country located in the tropics of Central America, it has a unique natural beauty and ideal weather to engage in a nature-based adventurous activity. With a diverse range of options from forest, rivers, volcanoes, and beaches. Furthermore, it is known for having a vast biodiversity of flora and fauna. Most of the flora in the country has been restored through protection policies and reforestation (Reid et al., 2017). Such natural resources are a great deal to stimulate both domestic and international tourism.

Furthermore, it is also a country crammed with culture and traditions that can be thoroughly enjoyed along its territory, and the inhabitants are known for their kindness and hospitality. The most important factor that the country boasts of, is having access to both the Pacific and the Atlantic Ocean, thus the Caribbean cultural experience (Jones & Spadafora, 2017). There are so many activities and gastronomy that vary depending on the zone and this is the reason why it is a place that is most preferred by both domestic and international tourists.

As a small and a developing country, it is majorly comprised of rural areas however considerably the biggest populations have migrated to urban areas. This is also a strategy to promote rural tourism because most of these natural tourist alluring sites are in the rural areas of the country. Additionally, most of the tourist's projects in rural areas have been developed as a community-based tourism. This also helps to boost a societal collaborative project approach (Little & Blau, 2020).

According to (Lai & Hitchcock 2017; Mosedale & Voll 2017), community tourism is a social innovative approach with a goal to conserve natural biodiversity where local communities showcase their cultural heritage to tourist. However, community tourism involves more than just visiting an all-inclusive hotel. Subsequently, this is because tourists get to learn more about the social and economic aspects of a specific area as they are enjoying the activities that are offered. Most of the projects that are developed as community-based tourism in Costa Rica seek to make the visitors live a nice experience on what the place has to offer: nature, and therefore they developed ecofriendly business models.

Nevertheless, as an innovative approach in this kind of model, the main philosophy is to prevent contamination by reducing wastes, for example by avoiding plastic of single use. There are small hotels for instance that produce their own fruits and vegetables and use them to create fresh and nice dishes for their guests, while at the same time they do not use plastic to serve their cuisine as well (Accorsi et al., 2020).

In addition to that, the environment protection is a topic that has evolved with the implementation of sustainable measures. Such measures have been adapted from global initiatives to protect natural resources as the world is facing high escalations in the levels of global warming and environmental contamination. According to Damm et al. (2017), the tourism sector is not the only exception, it is a big contributor to environmental negative concerns since thousands of people move across different places in the pursuit to satisfy novel adventure experiences.

This research seeks to investigate and integrate the following determinant considerations: geographic, social, and political factors to understand the feasibility of developing an eco-sustainable hotel business in Costa Rica. The exploitation and accessibility of natural resources transformed for economic gains will depend on the mentioned three factors.

2. Objective

The overall goal is to analyze the administrative model of eco-friendly-self-sustainable hotels in rural areas of Costa Rica. Furthermore, the study also describes three of the most relevant eco-friendly-self-sustainable hotel business models, the factors that have driven business models of eco-friendly-self-sustainable hotels and finally propose innovative strategies to upgrade this market niche in Costa Rica.

3. Methodology

3.1 Investigation design

Since there are only a few literatures covering this topic, a qualitative research methodology was applied because of the nature of the subject matter (Mura & Khoo-Lattimore, 2018). A qualitative study was carried out to analyze the administrative and business model of eco-friendly-self-sustainable hotels in Costa Rica, as well as to describe generalities of this niche in the tourism sector.

Regarding the hotels, the study variables will include their geographical location, the sector to which they are directed and the strategies or types of technology they use to fulfill their objective of being eco-friendly or self-sustaining. As a supplement, the variables; age, country of origin and interests of some tourists who have visited these types of hotels was as well analyzed.

3.2 Population and sample

Through the typical case sampling technique, selected Costa Rican and rural hotels that are benchmarked for their eco-friendly or self-sustainability philosophy was selected. Additionally, a random sampling was carried out in tourists belonging to the target market of this market niche.

3.3 Data collection

To obtain the required information for this research, three main methods were used thus, a case study where the focus is to obtain related information about the business models being applied, directed surveys to obtain inside data for analysis and conclusions and finally a bibliographic review for conceptual, scientific, and certified sources to base our analysis on reliable data.

4. Results and discussion

This section provides insights concerning results and discussions which also covers the certification for tourism sustainability analysis and its present situation in the Costa Rican Hotel industry.

4.1 Certification for tourism sustainability (CST) analysis

According to the Costa Rican Tourism Institute, the fundamental purpose of the CST is to turn the concept of sustainability into something real, practical, and necessary in the context of the country's tourism competitiveness. In addition, according to Hunt et al. (2015), the transformation

of sustainability concepts improves the way in which natural and social resources are used, encourages the active participation of local communities, and provides new support for the competitiveness of the tourism business sector.

When a company gets the CST, it is because it has exhibited an excellent management that actively works on mitigating its negative impact on the environment. For example, a CST company must be dedicated on reducing the greenhouse gas emissions effect, giving a proper management to waste and recyclable materials, and must have strategies for saving water and energy. Also, they must make important efforts on the strengthening of the social, cultural, and economic conditions, by training and hiring local people and promoting local traditions and biodiversity (Blackman et al., 2014).

According to Howitt (2018), for Costa Rica, the CST represents a new source of competitiveness, because it allows to differentiate the local tourism industry from other competitors. As this process certifies that the methodology of developing tourism products is encouraged with sustainability perspective. This strategy strengthens the image of the country as a truly naturalistic destination, considerably increasing the competitiveness of the national tourism product and opens new possibilities for marketing or international promotion.

This approach also helps local tourism companies because, in addition to the support that the Costa Rican Tourism Institute offers in promotion, they achieve more efficiency in their operation by promoting savings and an efficient use of resources. This has a positive impact not only on the quality of the product, but also on the cost-benefit ratio.

Finally, the CST directly mitigates the inconsistent practice of some companies that operate as "greenwashers" (companies that abuse the concept of "eco" or "sustainable"), by providing unreliable information of the companies that really strive to offer a sustainable tourism product and which ones do not.

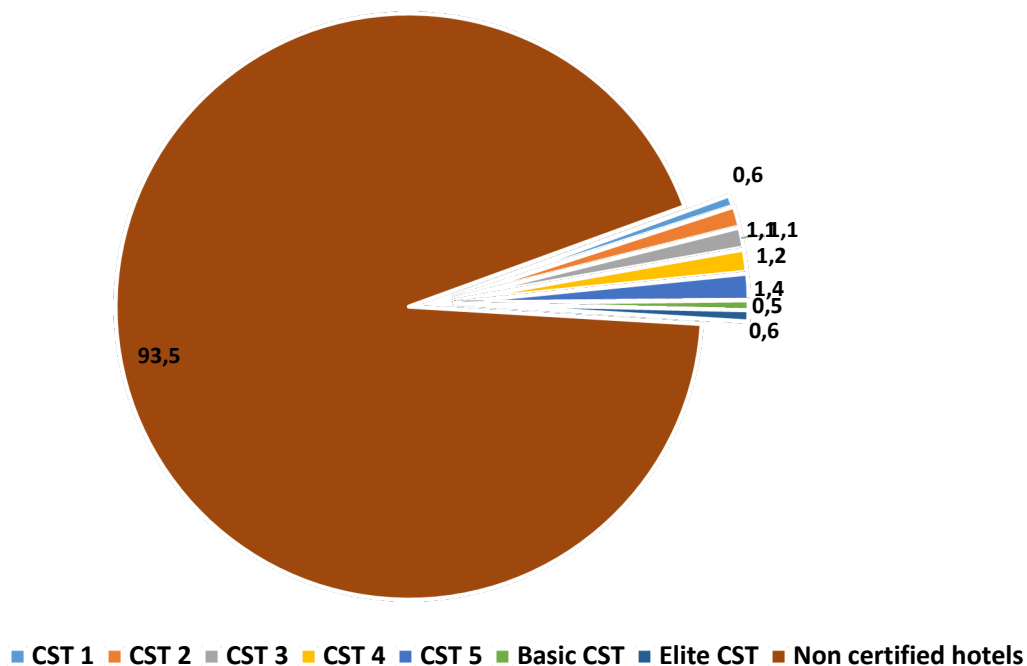
4.2 CST status in Costa Rican Hotel Industry

It is well known that Costa Rica has been characterized as a green paradise, because of its abundant biodiversity and culture of environmental protection policies (Courvisanos & Jain, 2006). Although, when it is analyzed the number of hotels that have reached a CST certification as shown in Figure 1. It is noticed that only a small percentage of them that have been certified, it is only a smaller portion have achieved a high level of certification (CST 4, CST 5 or Elite). This result is quite shocking and contradictory to what Costa Rica is famously known for; however, efforts have been made at all levels to meets international sustainability agreements like the Paris Agreement etc.

As well as most nature-based certifications the processes involved are so demanding that at certain points, the processes involves additional increase in operations costs of a company (Chen et al., 2010). Though, to attain the CST certification, the company must meet and comply with the forementioned standards such as recycling strategy, sustainable plan etc. It is possible that this data correlates with the wide scope of variables that the certification takes in account, as it asks for more than just nature preservation or implementation of new eco or sustainable technologies.

Figure 1

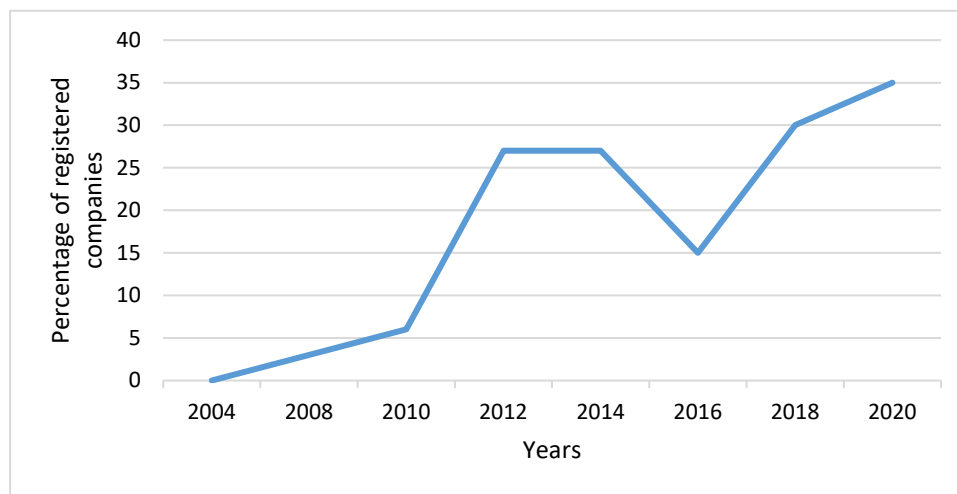
CST certified hotels in Costa Rica



Source: Own elaboration.

Although, if we observe a graphic that describes the number of hotels that get the CST by year, we can observe an upward trend (Figure 2). This might be because this kind of certifications and sustainable models start to be a standard demanded by customers. Also, it is possible that some hotels were implementing already sustainable administration models and are now interested in being certified because of its benefits. This trend is very specific due to current demands of sustainable hotels especially from European tourists. In response to a study by Carvache-Franco et al. (2019), regarding the origin of tourists in Caño Negro National Wildlife Refuge and Arenal National Park, over 42.3% revealed their origin mostly from European countries.

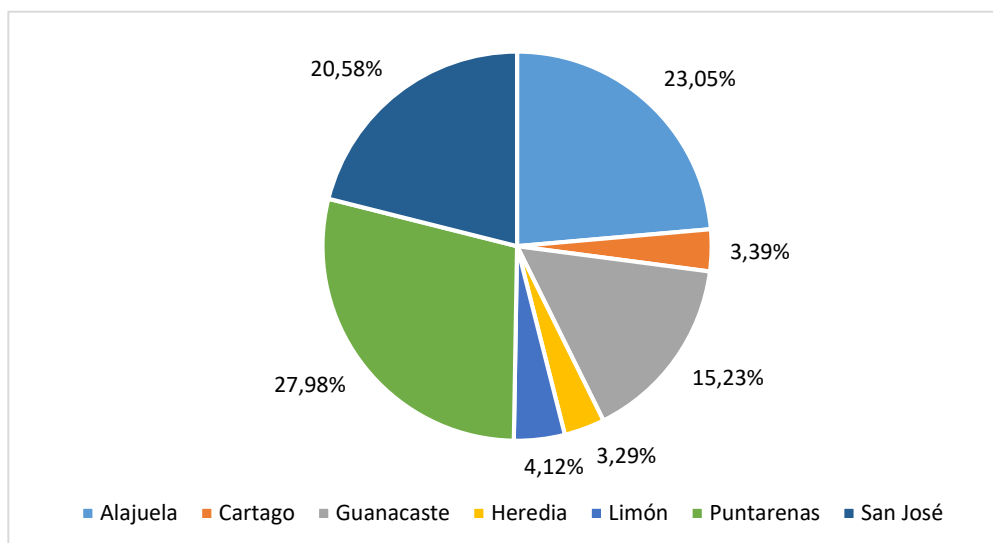
Figure 2

Number of new CST certifications per year in Costa Rica

Source: Own elaboration.

If we segregate the data of certified hotels according to the region or type of hotel as shown in Figure 3 and Figure 4, we can observe that most of them are in Puntarenas, San José, and Alajuela; and that they are mainly Mountain hotels. This also means that tourists are very conscious about sustainable environmental practices hotels operate. The focus is therefore, enjoying the maximum of nature-based adventures but at the same time promoting a conservation culture for future generations.

Figure 3

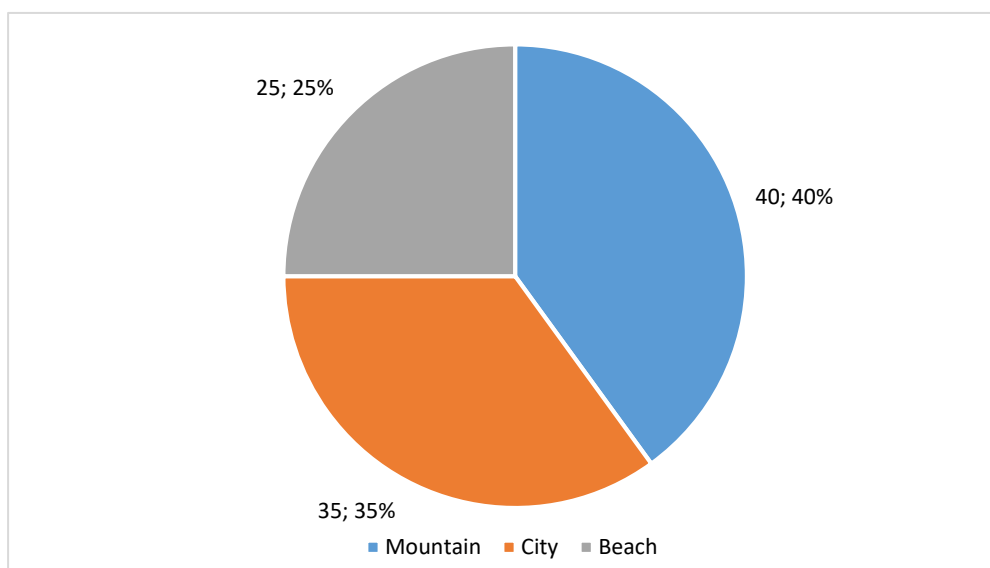
CST certified hotels by province

Source: Own elaboration.

One of the most highly tourist attractive sites are the beaches in Guanacaste. But a study by Mora-Alvarado et al. (2019), identified 62 beaches in this province with at least a moderate risk category in terms of safety. This is very interesting, as it is easy to think that Costa Rican beaches located in Guanacaste are one of the most important tourist sites. According to this data, it is possible that the CST certification is becoming a way to attract more tourists and gain competitiveness in other places. Additionally, the certification demands from European tourists have increased both the tourism and hotel industry in mountainous areas. The most common activities in these mountainous areas include: Canopy, hiking, birdwatching etc.

Figure 4

CST certified hotels by type

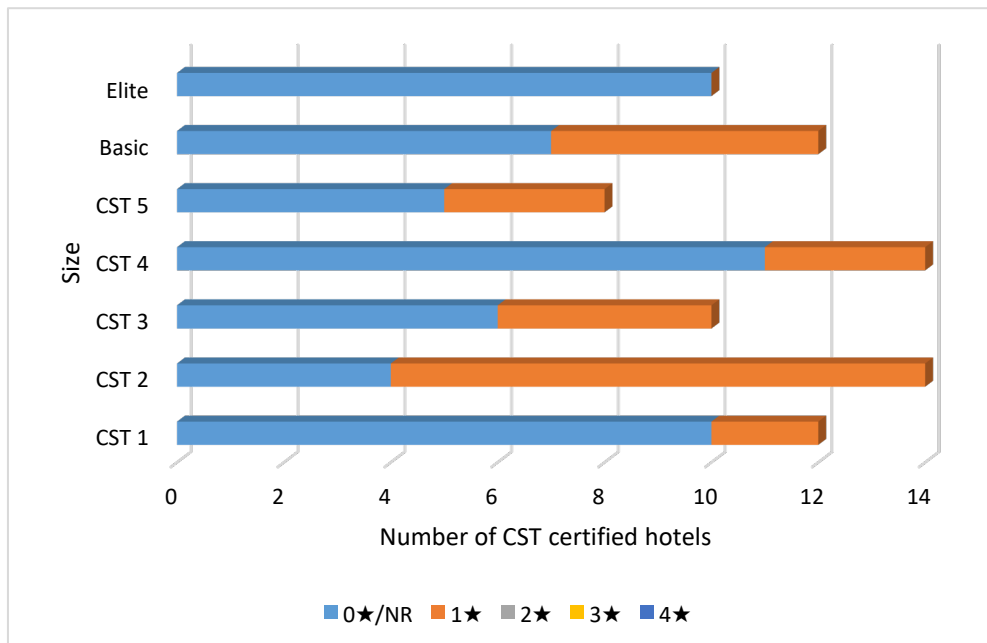


Source: Own elaboration.

When we analyzed the data according to the size of the hotels, we noticed that the vast majority of them are very small hotels, with less than 50 rooms (Figure 5). Certainly, this pattern is because the certification gives advantage to small entrepreneurs and it has some benefits such as tax exoneration, free publicity, and technical-logistical support. It is also important to mention that rural tourism is highly demanded by both European and North American tourists. This offers an added advantage to small scale companies to form associations to attend large groups as well showcase their cultural heritage and biodiversity.

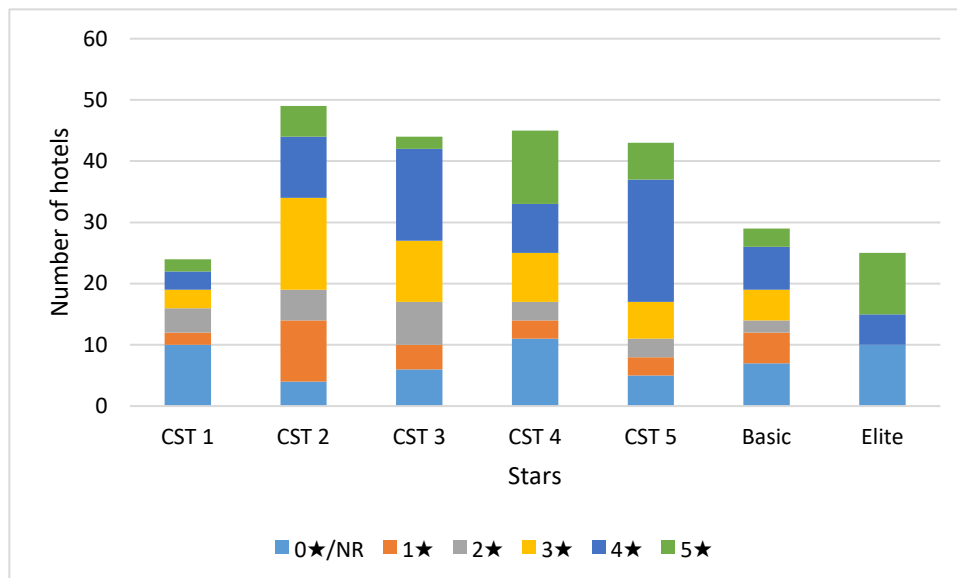
Finally, we attempted to observe if there was a correlation between the Quality stars rating of the hotels and the level of CST certification that they have, but the graphic analysis reveals that they are not correlated (figure 6). It is normal to expect that the quality stars ratings and CST would go hand in hand as a bonus or double win for companies. But this is not always the case because there are CST certifications with all quality stars categories thus from zero-star rating (lowest) to five star ratings (highest) (Brazytė et al., 2017).

Figure 5

CST certified hotels by size

Source: Own elaboration.

Figure 6.

CST level by amount of stars

Source: Own elaboration.

This could be because of the different scope and objectives of both systems. Even though, we think hotels are using them as complements that can give a competitive advantage, because it is

observable that hotels with different number of stars are well certified. The CST certification is more of a sustainable based approach of tourism and hotel management. However, according to Geetha et al. (2017), the stars ratings are based on customer reviews and satisfaction, of which in most cases it has nothing to do with sustainability measures concept.

5. Innovation opportunities

According to Mylan (2018), almost a quarter of Costa Rica's export revenue is derived from tourism, particularly ecotourism as the most significant form economic growth. Additionally, this form of tourism also helps to protect the environment and improve the livelihood of communities. Costa Rica has huge and innumerable opportunities to develop eco-friendly tourism. There are numerous reasons why we think of developing this kind of business within the country's strategic development plans, such as geographical location, natural resources, and social and political factors.

We can count 28 National Parks, 11 forest reserves and 32 protected zones inside the rainforest, including volcanoes, and rivers. The Costa Rica's beaches are among those that are ranked Top 10 around the planet. These numbers are amazing considering that the country represents 5% of the world's biodiversity in only 51,100 Km² of its national territory (Santidrián-Tomillo et al., 2017; Luijendijk et al., 2018).

From the social & political factors we can find that Costa Rica has a robust sustainability and renewable energy initiatives to support environmental projects as well as incentivize new business with the possibility to work under the famous brand Essential Costa Rica. This is the biggest brand in the country that integrates all the local businesses that want to be certified under the social, renewable and sustainability programs. Additionally, this certification attracts a lot of customers that are looking for green experiences from Costa Rica.

6. Proposal for sustainable upgrading

The content of this section includes an innovation opportunity for a self-sustainable project. The following are considered tentative innovative approach for sustainable upgrading based on the results of this research:

- **Smart hotels:** According to Amer & Alqhtani (2019), smart hotels are those that makes the optimal use of internet-connected gadgets to transmit data, which is translated into transformative actions, with the objective of improving systems adaptability. Additionally, this innovative proposal also includes the implementation of technology to hotel's excellent facilities and services activities. Some examples are: -Voice-activated controls: these controls are used for music, temperature, to order food and to make reservations in the several hotels amenities (Sari, 2018).
- **IoT / Data science:** Applying data science through models like TripAdvisor etc. gives hotels the opportunities and scope for improvement (Moro et al., 2017). As the company will be in position to apply and analyze customer preferences and satisfaction. This also may enable the company to improve on their star ratings depending on the quality of their services. Furthermore, this

technology is used to make/manage online reservations and to understand and analyze the customers preferences in order to adjust the hotel offer to what the customers are looking for.

- **Apps:** Various applications have been developed to monitor water consumption, carbon footprint, to check on weather forecasts and activities close to the hotel. Also, apps are available to know about community information, purchase souvenirs and other products. At the same time, the International certifications have developed apps that help the hotels to follow up on sustainable practices globally like Foodbank Helper (Nielsen & Rimpiläinen, 2018).
- **Environmentally friendly normative:** Another important consideration is the implementation of a sustainable designs, as projects must be aligned and use certified construction materials. Additionally, some good practices include the reduction of plastic use and wastes by adjusting the menu. Alternatively, only serve the amount that the guests would actually consume and placing dispensers for water and other supplies to limit its use (Tribago Business, 2019).

Regarding water conservation and energy saving, the following are some innovation opportunities: (a) reduce the laundry by enhancing guests to reuse towels and reduce room cleaning, (b) install lower-flow showers and urinals, Led lights, energy saving lamps and a Smart energy management system. And finally (c) install HVAC systems activated by key cards.

On the other hand, there are improvement points at the management level, for example implementing Management information systems (MIS) to monitor the use of resources, personnel, and finances. There is also a social impact to be considered since hotels have always a significant amount of manpower required. The personnel should be hired locally and capacitated on sustainable concepts which promote recycling and reusing culture. In this same aspect, there is a direct benefit to the communities when hotels purchase local supplies as vegetables, cleaning products, among others (ULI Americas, 2021).

As hotels have huge requirements of various supplies and materials, there are opportunities to improve the way to contract or purchase them as: joining sustainable suppliers and companies that work under the same scheme, it would help them by sharing experiences. Also, the use of non-toxic cleaning solutions, sanitizers, pesticides in their activities would reduce contamination (Merli et al., 2019)

Another innovative idea is the creation of a menu using fresh products from on-site certified organic farms that consumes less space, water, and energy. And the last section refers to a very important aspect that are the natural retreats & wellness programs that according to this research are in between the most important things for guests when on a reservation. The idea is to create spaces to do exercises like classes of Yoga involved in nature, as the guests enjoy healthy food (Rajeswari & Sathishkumar, 2019).

And the most important thing that we must know about this beautiful country is the Pura vida slang, this reflects the lifestyle that everyone around the world is looking for to be happy and relaxed (Smith, 2018).

7. Conclusions

Costa Rica has all the conditions required to develop more self-sustainable business models around the country. The potential for growth is huge for the tourism industry. Based on the country's

abundant flora and fauna in addition to diverse mountains and water bodies. The tourism industry presents high potential for improving livelihoods in rural communities. Furthermore, in the long run this will also help to reduce inequality in the country in terms of development and employment opportunities. Currently, economic development is highly concentrated in urban centers.

Nevertheless, there are huge numbers of projects that could be interested in developing a sustainable business model, applying the ideology of smart hotels, data of science, Apps etc. This novel initiative can be stimulated by the CST and could formulate a guide or a framework to carry out it accordingly. This strategy would also function in favor of small-scale companies in terms of thorough capacity building and monitoring.

However, there is a market niche which is very concerned about the environment and sustainable development. This scenario can be observed in both domestic and international tourists, as more are interested and inclined to rural community adventures compared to city tourism. This can also be attributed to less contaminating aspects in terms of water and air pollution in rural areas. The Above-mentioned sustainable projects are rising, and are trending based on the customer's demand and the global needs to mitigate the negative impact within hotel industry.

There is an opportunity to do more research on this topic as a strategy for marketing and benchmarking. To effectively promote this model, more research must be conducted providing data and information which tourists can use to make decisions on their consumptions and preferences. In this way, people will make informed decisions based on their consciousness to protect the environment and promote sustainable development in societies.

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Promoting Hospitals' Reputation through Social Media and Artificial Intelligence

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Abstract

Cancer hospitals resort to social media platforms to make their corporate communication initiatives more dynamic and this way better satisfy their stakeholders' needs in terms of medical information and emotional support. Nevertheless, these organizations also face different barriers such as new patients' medical demands, legal issues, privacy or the difficulty to disseminate scientific content. To overcome these barriers, more and more hospitals integrate social media platforms and artificial intelligence-based tools into different medical protocols, and this way they proposed to patients a unique medical service, which positively impacts on patients' satisfaction and the hospital's corporate reputation. This literature review paper aims to analyze how artificial intelligence and social media platforms used in an integrated way help cancer hospitals to implement more efficient corporate communication initiatives in order to build a more reputed brand. To do that, we conducted a literature review about cancer hospitals' corporate communication strategies, social media platforms and artificial intelligence in cancer hospitals; and then, we proposed ten managerial implications for helping cancer hospitals use both insights (social media and artificial intelligence tools) for building a reputed brand.

Key words

Cancer Hospitals; Corporate Communication; Artificial Intelligence; Social Media; Reputation.

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1. Introduction

Cancer hospitals face different challenges related to patients' treatments, medical research, business models, and communication strategies. Most of them have implemented a Corporate Communication Department that is in charge of different activities such as publishing websites and magazines, organizing internal events or implementing advertising campaigns. On the other hand, during these last years, most cancer hospitals have integrated social media platforms for communication purposes (health education, online consultations), as well as some artificial intelligence-oriented initiatives to improve patients' care. Nevertheless, both activities are implemented in a nonintegrated way and focus especially on medical aspects. This literature review paper aims to analyze how cancer hospitals' Corporate Communication Department could use artificial intelligence and social media platforms in an integrated way to improve the company's brand reputation. To do that, we conducted a literature review about corporate communication strategies used by cancer hospitals, the role of social media on those strategies, and the impact of artificial intelligence on cancer hospital's services; and then, we proposed ten managerial implications that cancer hospitals could implement to improve their reputation thanks to social media and artificial intelligence-oriented initiatives.

2. Cancer Hospitals' Corporate Communication Strategies

Cancer hospitals deal with patients suffering from physical diseases and psychological stress, which makes it more difficult for them to efficiently communicate with doctors (Moore, Rivera, Bravo-Soto, Olivares & Lawrie, 2018). These relations before, during and after their consultations at the hospital determine cancer patients' perceptions about doctors and hospitals (Beesley, Goodfellow, Hocombe & Salmon, 2016). That is why, most cancer hospitals implement collective decision-making processes to improve relations with patients (Peterson et al., 2016; Salmon & Bridget, 2017). Thanks to this initiative, health professionals interact with cancer patients in a more efficient way, which positively influences on patients' medical outcomes (Brand, Fasciano & Mack, 2017).

Nevertheless, these professionals need to reinforce their emotional and social skills in order to better communicate with cancer patients, and this way help them from a medical and emotional point of view (Salmon & Bridget, 2017). Their skills in interpersonal communication allow also doctors to adapt their behaviour to different kind of patients, such as elderly people, children or violent patients (Moore et al., 2018). Doctors and cancer patients focus their communication relations on six main topics: managing uncertainty, responding to emotions, making decisions,

fostering healing relationships, enabling self-management and exchanging information (Blanch-Hartigan et al., 2016). These communication relations are essential to reinforce the mutual trust between patients and doctors, but also to build the hospital's brand in a collective and credible way (Falisi et al., 2017).

Besides interpersonal communication initiatives, cancer hospitals also implement internal and external communication activities to interact with internal and external stakeholders, such as employees, public authorities or media companies (Medina Aguerrebere, Gonzalez Pacanowski & Medina, 2020). In hospitals, internal communication initiatives determine many different aspects, such as the internal functioning, employees' performance or doctors-patients' relations (Rodrigues, Azevedo & Calvo, 2016; Pelitti, 2016). Thanks to internal communication, hospitals implement customer relationship management programs that allow them to enhance added value services proposed to patients (Medina Aguerrebere, 2018), reinforce employees' skills to adapt to change situations and this way achieve all organizational goals (Rodrigues et al., 2016), and promote a corporate culture allowing employees to work in unique way and build a credible brand (Helfert, Lugmayr, Heimgärtner & Holzinger, 2013).

With respect to external communication initiatives, hospitals resort to them to influence external stakeholders' perceptions, attitudes and expectations (Becerra, Reina & Victoria, 2015). When cancer hospitals design their external communication strategy, they consider five main aspects : a) consistency, hospitals implement and monitor an annual communication plan that respects the company's brand architecture and its main goals (Moreno, Wiesenbergl & Verčič, 2016); b) public health approach, hospitals focus on pedagogical inputs that help patients improve their expertise on treatments and diseases (Fischer, 2014) ; c) opinions and attitudes, external communication campaigns aim to influence stakeholders' perceptions about the hospital' services but not to promote medical treatments (Robinson et al., 2014) ; d) research, hospitals carry out different research initiatives in order to gather data allowing them to reduce the risk when taking strategic decisions about the brand (Medina Aguerrebere, 2018) and ; e) evaluation, hospitals evaluate in a quantitative way the impact of each campaign in the hospital's brand and reputation (Zerfass & Viertmann, 2017).

Hospitals implement corporate communication initiatives to reinforce their strategic positioning in the health market (Mazzei, 2014). They integrate an in-house communication department whose main objective consists of managing internal and external stakeholders, building a reputed brand and reinforcing the hospital's business strategies (Esposito, 2017). Corporate communication initiatives are a strategic issue for cancer hospitals because, on the one hand, it leads patients to engage in social support initiatives allowing them to learn how to communicate with doctors (Badr, Carmack & Diefenbach, 2015; De Vries et al., 2018) ; and on the other hand, it helps cancer hospitals adapt to internal and external changes and, this way, build a dynamic, credible brand (Kemp, Jillapalli & Becerra, 2014).

3. Cancer Hospitals' Corporate Communication Strategies on Social Media

Using social media platforms as a corporate communication tool constitutes a true challenge for many cancer hospitals: fake news published about cancer related issues, patients' mistrust on these platforms as a source of medical information, legal and cultural constraints (Attai et al., 2016). To face this situation, cancer hospitals base their corporate communication initiatives on two main values: trust and social support (Namkoong, Nah, Record & Van Stee, 2017). This way, they can engage with different stakeholder, improve some internal processes and enhance the hospital's reputation (Costa-Sánchez & Míguez-González, 2018).

Social media have become a true corporate communication tool able to make cancer hospital brands more dynamic and credible (Medina Aguerrebere, 2018). Five reasons led us to claim that. First, thanks to social media, cancer hospitals can implement different initiatives to reinforce patients' social networks and this way influence their decisions to adhere to treatments (Prochaska, Coughlin & Lyons, 2017). Second, using social media help these organizations to successfully implement public health campaigns focused on prevention, healthy habits and medical education, which positively influences on patients' perceptions about the hospital's brand (Vraga et al., 2018). Third, oncologists can integrate social media platforms in their internal protocols in order to improve patients' satisfaction with medical services (Sedrak et al., 2017). Fourth, thanks to social media, cancer hospitals can launch different public relations campaigns allowing them to become a meaningful brand for stakeholders (Costa-Sánchez & Míguez-González, 2018). And fifth, thanks to these platforms, cancer hospitals can establish long-term relations with patients before, during and after their consultations at the hospital, which positively influences on the hospital's public image (Yang et al., 2018).

Cancer hospitals resort to different social media platforms, such as Facebook, Twitter, and Youtube. Facebook helps patients to interact with oncologists and gather credible information about treatments and diseases, which determines patients' perceptions about the hospital's brand (Attai et al., 2016). Thanks to Facebook, patients can meet other patients, as well as health professionals, and this way create their own emotional support network (Gage-Bouchard, La Valley, Mollica & Beaupin, 2017). Moreover, this platform allows hospitals to gather different data about patients' expectations and behaviours, and this way implement customized communication campaigns (Kotsenas, Aase, Arce & Timimi, 2018). As to Twitter, three reasons led cancer hospitals to use this platform as a corporate communication tool : first, cancer hospitals can launch and promote cancer-specific online communities that integrate doctors, patients, policy makers and public authorities (Park, Reber & Chon, 2016) ; second, using Twitter allows cancer hospitals to enhance patients' understanding about different issues such as treatments or diseases (Basch, Basch, Hillyer & Reeves, 2015) ; and third, thanks to this platform, some patients, such as for example those suffering from lung cancer, can communicate with doctors about cancer risk factors and cancer prevention methods in a more efficient way (Sutton et al., 2018). Finally, with respect to Youtube, cancer hospitals resort to this platform to disseminate visual content useful for patients, health professionals and schools of medicine' students (Huang, 2013). This visual information is especially important for some patients, such as those suffering from breast cancer, who prioritize videos focused on prevention and early detection, produced by health organizations

and showcasing some elements about other patients' experiences (Míguez Gonzalez, Garcia Crespo & Ramahí Garcia, 2019).

Using social media platforms in a professional way for disseminating meaningful content for stakeholders helps cancer hospitals to build a reputed brand (Medina Aguerrebere et al., 2020). These communication initiatives should be based on scientific evidence, which means that experts in communication should collaborate with health professionals to disseminate an accurate content (Sedrak et al., 2017). Social media play a crucial role when health professionals explain to cancer patients different scientific contents, that is why hospitals should integrate these platforms in their medical protocols (Yeob et al., 2017). This way, patients can reinforce their empowerment, and hospitals can enhance their own reputation (Salmon & Bridget, 2017).

4. Cancer Hospitals' Initiatives on Artificial Intelligence

Artificial intelligence-based initiatives are shaping health professionals' habits and skills, as well as those of students in Schools of Medicine all over the world. Both hospitals and Schools of Medicine are facing a crisis driven by 2 compelling forces: on the one hand, growing externalization of available medical knowledge outside the minds of physicians, and on the other hand a true stress-induced mental illness among students in both organizations (Wartman & Combs, 2019). To face this situation, some Schools of Medicine are implementing artificial intelligence-oriented initiatives to reinforce the medical curriculum and recruiting new educators from different disciplines such as mathematics, ethnography, engineering, computer sciences and economics (Paranjape, Schinkel, Nannan, Rishi & Nanayakkara, 2019). Thanks to this new approach, students will be able to attend curricular and extracurricular courses allowing them to reinforce their skills in the clinical usage, technical limitations and ethical implications of artificial intelligence tools in medical settings (McCoy et al., 2020). Medical educators should be ready to integrate artificial intelligence in most of their courses and this way propose a most useful, creative content for students (Master, 2019) allowing them to understand the overall context, future needs and main constraints of medicine during next years (Master, 2020).

Health professionals working in cancer hospitals should accept a fundamental change in their professional identity which involves, on the one hand, integrating tools from big data, information sciences and engineering in their daily work; and on the other hand, accepting their new role of advisors to help patients understand this new technological context (Rampton, Mittelman & Goldhahn, 2020). According to different authors, such as Valikodath et al. (2021), there is a gap between oncologists' understanding of artificial intelligence, and the true potential of these tools in medical contexts, that is why it is important for hospitals to assign more resources to develop this area. For example, thanks to artificial intelligence-based tools, oncologists can construct dynamic patient profiles from disparate data sources and organize vast literature for relevance to a specific patient (Simon et al., 2019). Nevertheless, oncologist should also integrate in this technological context their human skills such as their clinical intuition, ineffable perceptions, empathy and professionalism (Van der Niet & Bleakley, 2020).

Artificial intelligence-oriented tools have radically changed cancer patients' care. Five examples allow us to justify this statement. First, big data helps oncologists to better understand and predict different insights (patient age, cancer stage, impact of previous therapies, etc.), which improves the implementation of precision medicine (Aikemu et al., 2021). Second, machine learning algorithms allow cancer hospital to monitor patients, predict how cancer diseases can evolve (James, Wheelock & Woolliscroft, 2021) and improve drug-target activities and drug response predictions (Ziaurrehman, Vähä-Koskela & Tero, 2021). Third, artificial intelligence-based robots can be used for cancer surgery: they analyze information from the surgical field, recognise issues and implement the proper actions without the need for human intervention (Tătaru et al., 2021). Fourth, using artificial intelligence-based software to launch and update online support groups where cancer patients interact and share experiences, which decreased their psychological distress and improve their emotions (Adikari et al., 2020). And fifth, integrating artificial intelligence in pharmacy informatics to improve cancer patients' care (Grothen et al., 2020).

During next years, artificial intelligence-oriented tools will be essential to help cancer hospitals face different challenges such as predict optimal drug therapies based on the personalized molecular profiles of individual patient tumors (Huang et al., 2018), ensure data integrity and use artificial intelligence applications in a more efficient way (Chan & Zary, 2019), help health professional to become leaders in artificial intelligence and medicine (Kolachalama & Garg, 2018), reinforce legal procedures to make sure that cancer hospitals respect ethical issues (Shaban-Nejad, Michalowski & Buckeridge, 2018) and establish national and international laws concerning the information access through artificial intelligence applications (Lee & Yoon, 2021). To face all these challenges, health professionals need to work in an integrated way along with other professionals, such as engineers, mathematicians or anthropologists. Thanks to this new approach, cancer hospital will be able to launch different artificial intelligence-based initiatives that will positively impact on cancer patients' care. To do that, they should also consider some of the initiatives that have already been launched, such as those explained in Figure 1 below.

Figure 1

Current Artificial Intelligence Initiatives for Cancer Patients

Country	Company	Initiative	Purpose
USA	National Cancer Institute	NCI Intramural Research Program	Improving cancer screening in cervical and prostate cancer, and automatically detect precancerous cervical lesions from digital images. Source: https://www.cancer.gov/research/areas/diagnosis/artificial-intelligence
UK	The Institute of Cancer Research	Artificial Intelligence Program	Better understand cancer related diseases, discover new treatments and improve patients' experiences. Source: https://www.icr.ac.uk/our-research/about-our-research/research-themes/artificial-intelligence
USA	Massachusetts Institute of Technology	Artificial Intelligence Laboratory	Implementing an algorithm (<i>Mirai</i>) that helps doctors to produce predictions about which kind of patients will get cancer, considering different risk factors and different clinical environments. Source: https://news.mit.edu/2021/robust-artificial-intelligence-tools-predict-future-cancer-0128

UK	University of Cambridge	Research Project on Cancer and AI	Using the AI machine-learning technology to decipher the biological language of cancer, Alzheimer's and other neurodegenerative diseases. Source: https://www.joh.cam.ac.uk/artificial-intelligence-could-crack-language-cancer-and-alzheimers
USA	Hampshire Hospitals	PAIR-1 Study	Implementing Artificial Intelligence tools to identify prostate cancer, improve the screening process for diagnosis and deliver earlier detection and better treatments options. Source: https://www.digitalhealth.net/2021/09/hampshire-hospitals-lucida-medical-ai-prostate-cancer-study/
UK	Addenbrooke's Hospital, Microsoft	InnerEye Project	Using Artificial Intelligence technology to highlight tumors and healthy organs on patients' scans and this way improve survival rates for some cancers. Source: https://www.microsoft.com/en-us/research/project/medical-image-analysis/
Australia	Saint Vincent's Hospital Melbourne	Academic Research	Implementing Artificial Intelligence tools to transform breast cancer screening, improve detection, lower harm, reduce cost and cause less stress for women undergoing a mammogram. Source: https://www.svhm.org.au/newsroom/news/beating-breast-cancer-with-artificial-intelligence
USA	Chicago Medicine	Academic Research	Resorting to Artificial Intelligence tools and deep learning models to analyze digital images of tumor biopsy samples, predict prognosis and guide a course of treatment for the patient. Source: https://www.nature.com/articles/s41467-021-24698-1
USA	American Society of Clinical Oncology	Academic Research	Developing an artificial intelligence-based smartphone app to reduce severity of patients suffering metastatic solid tumors, as well as hospital admission. Source: https://www.asco.org/about-asco/press-center/news-releases/artificial-intelligence-smartphone-app-significantly-reduced
USA	Pathai	Pathai	Integrating a machine learning technology to assist oncologists in making more accurate diagnoses, reducing errors and developing methods for individualized medical treatments. Source: https://www.pathai.com/
USA	Stanford Center for Health Education	Online Program in AI and Healthcare	Reinforcing doctors and technology professionals' understanding about the potential of AI for improving patients' outcomes. Source: https://online.stanford.edu/programs/artificial-intelligence-healthcare
USA	Accuray	Accuray Cyberknife System	Robots integrating AI tools and 6D motion-sensing technology to treat cancerous tumors all over the body through surgeries. Source: https://www accuray.com/
USA	BioExcel Therapeutics	BioExcel Therapeutics	Using AI to identify and develop new medicines in the fields of immune-oncology and find new applications for existing drugs or to identify new patients. Source: https://www.bioxceltherapeutics.com/
USA	Freenome	Freenome	Resorting to AI in screening, diagnostic tests and blood work to detect cancer in its earliest stages and develop new treatments accordingly. Source: https://www.freenome.com/
China	Icarbonx	Icarbonx	Using big data and AI to analyze human life characteristics and based on that classify symptoms, develop treatment options and get people healthier. Source: https://www.icarbonx.com/

Source: Own elaboration.

5. Managerial Implications for Cancer Hospitals' Corporate Communication Strategies

Artificial intelligence-oriented tools and social media platforms have radically changed cancer hospitals' medical services. Thanks to these initiatives, health professionals work in a more efficient way, and hospitals optimize their human and economic resources. Besides, patients improve their medical outcomes and feel more satisfied with treatments and services. From a medical and business point of view, artificial intelligence and social media platforms are essential to improve cancer hospital's performance. Nevertheless, these organizations should also capitalize on both elements (social media platforms and artificial intelligence initiatives) for making their corporate communication strategies more dynamic and this way improve their brand reputation. To do that, we propose ten managerial implication for any cancer hospital all over the world.

- *Corporate Communication Department.* Cancer hospitals should implement a Corporate Communication Department employing different kinds of employees, such as journalists, experts in public relations, designers, copywriters, but also engineers, mathematicians, experts in big data, health professionals and experts in public health. All of them work in an integrated way in order to use artificial intelligence and social media initiatives as a main corporate communication tool allowing the hospital to improve its brand reputation. This department is led by the Corporate Communication Director, who directly reports to the hospital's CEO.
- *Corporate communication approach.* This department should focus all its initiatives on reinforcing the hospital's scientific credibility as a provider of medical information for different stakeholders, such as patients, media companies or public authorities. Elaborating and disseminating meaningful scientific content for each stakeholder will help these organizations to evolve from a journalism approach, based on publishing promotional magazines and press releases about the hospital's medical services, to a corporate communication approach focused on satisfying stakeholders' needs in terms of information, medical education and emotional support. And, to do that, cancer hospitals resort to social media platforms and artificial intelligence tools.
- *Joint ventures with external companies.* Some cancer hospitals cannot develop and integrate different artificial intelligence tools because they lack economic and human resources. The Corporate Communication Department, on the one hand, should develop business plans (fundraising, donors, etc.) to help the hospital obtain the economic funds necessary for every project; and, on the other hand, should actively collaborate with the hospital to find the best providers (technological companies, start up, etc.) for implementing every initiative. Experts in communication must transform cancer hospitals from a business, medical and communication point of view.
- *Medical protocols.* The Corporate Communication Director, along with other employees such as the Medical Director and the hospital's CEO, must design plans to integrate social media platforms and artificial intelligence-oriented initiatives into different medical protocols in order to improve the hospital's performance and the patient's satisfaction. These new medical protocols allow cancer hospitals to efficiently implement a digital

transformation, which positively influences on their stakeholders' perceptions about the hospital, its brand, employees and services.

- *Lead the internal change.* Some health professionals, as well as other employees, refuse to leave their comfort zone and therefore, do not integrate social media and artificial intelligence tools into their daily work. The Corporate Communication Department have to implement internal communication campaigns, as well as training sessions with experts in both domains (social media and artificial intelligence) to tackle this situation and reinforce employees' engagement with the cancer hospital's digital transformation. To do that, they focus their communication campaigns on scientific and management facts about the hospital's performance, patients' satisfaction, economic impact on society, etc.
- *Human values.* Artificial intelligence and social media platforms should be used to reinforce the hospital's human values determining patients' trust on health professionals, such as the respect of ethics, medical intuition, emotional support or professionalism. The Corporate Communication Department must design and implement different protocols to help every employee understand how artificial intelligence and social media tools should be used to reinforce the hospital's engagement with human values. This digital, human transformation allows cancer hospital to implement a new medical setting in which patients' empowerment is as important as technological tools.
- *Collective branding initiatives.* Cancer hospitals cannot impose their brand architecture (identity, mission, vision, values and culture) to their stakeholders. They should work together with all of them (patients, employees, journalists, public authorities, suppliers, etc.) to implement a branding collective process allowing the cancer hospital to define its brand architecture in a collective way. To do that, social media platforms and artificial intelligence tools are essential, on the one hand, to communicate with different stakeholders, and on the other hand, to create a true meaningful brand based on scientific credibility and medical performance.
- *Fake news and health literacy.* Cancer hospitals should resort to artificial intelligence and social media platforms to implement different initiatives aiming to promote health literacy and reduce the number of fake news about cancer. This social engagement with medical information positively impacts on patients' safety, as well as cancer hospitals' corporate reputation. Promoting the truth, protecting patients' right to access a quality information and train patients on different medical issues (treatments, diseases, health habits, etc.) constitutes a true social engagement that cancer hospitals should promote.
- *Schools of Medicine.* Thanks to social media platforms and artificial intelligence tools, cancer hospitals produce and disseminate a unique content for patients and health professionals, but also for students in the Schools of Medicine and Nursing Schools all over the world. The Corporate Communication Department should invest time, resources and money to produce and disseminate professional content about diseases, treatments and healthy habits in order to improve students' skills in these domains. This social engagement with higher education institutions help cancer hospitals to improve their corporate reputation.
- *Social engagement.* The Corporate Communication Director have to explain to external stakeholders (media companies, public authorities, society) why and how the hospital's

engagement with social media and artificial intelligence tools positively impacts on the society's development. Promoting health education and reinforcing people's skills in artificial intelligence and social media in different contexts (hospitals, education institutions, public administration, etc.) helps cancer hospitals to justify their social role. Besides, hospitals also explain how they use these technologies to improve the health development in other countries, such as those suffering from poverty or humanitarian disasters.

6. Conclusions

Cancer hospitals play an essential role in society because they provide patients with treatments, medical education, emotional support and new therapies based on research that allow many of them to overcome their diseases. These last years, many cancer hospitals have integrated social media and artificial intelligence tools to improve patients' care. This literature review paper aimed to analyze how both initiatives (social media and artificial intelligence) help cancer hospitals to enhance their corporate communication initiatives and build a more reputed brand. In order to answer to this research question, we propose three last ideas. First, artificial intelligence and social media platforms cannot be considered as isolated technological initiatives, but as integrated activities that cancer hospital implement to digitally transform their organization, and propose a better medical, emotional service to patients. And this digital transformation should be led by the Corporate Communication Department because they are in charge of promoting internal changes in the organization, and because they are the only department able to integrate in this process all stakeholders' perspectives and interests. Second, cancer hospitals should resort to artificial intelligence and social media platforms to create and disseminate a meaningful content that influences stakeholders' perceptions about the hospital, its employees and services; in other words, both initiatives constitute the best weapon against the most important danger in health communication: becoming an empty brand. And third, oncologists should be trained by the Corporate Communication Department's employees to become brand ambassadors able to use social media platforms and artificial intelligence tools for efficiently disseminating medical content consistent with the hospital's brand architecture.

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Implications of the COVID-19 Pandemic in Retail SMEs Business Management

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Abstract

Retail SMEs, mainly local and physical, have been one of the most affected businesses during the COVID-19 crisis and yet considered the lifeblood of the European economy. In this paper, we undertake an introductory analysis of the situations that SME retailers have endured. After the analysis of the characteristics of the crisis for retail SMEs, we conclude with three characteristics that companies must foster in such extreme conditions: Resilience, digitalization, and empathy. We propose a framework that gathers, from a point of view of management and organization, some guidelines that can help retail SMEs to assess and improve their responsiveness to the crisis and build new strengths to face the post COVID-19 transformation and subsequent crisis. Together with these reflections, we finally propose some management suggestions and further lines of research.

Key words

SME, resilience, COVID-19, retail, management.

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1. Introduction

The retail business has been suffering a dramatic transformation in the last few years. Even before COVID-19 crisis, retail Small and Medium Enterprises (SMEs) were diminishing their number (Abel-Koch et al., 2019; European Commission, 2019). The physical stores have been challenged by the shift to online, as eCommerce is growing over 20 percent Year over Year (YoY) (Clement, 2019; Lal & Chavan, 2019), and a big part of the business is moving to global retailers like Amazon (Stanton, 2019). This situation is affecting primarily retail SMEs, that account for 5.4 million businesses in Europe, 20 million jobs, and 30 percent of all SMEs, and are considered the lifeblood of the European economy (Euro Commerce, 2017). Although some scholars only see an eCommerce based future for retail SMEs (Khaskheli et al., 2017; Lal & Chavan, 2019), most of these companies are local and try to leverage the proximity to their customers.

Unfortunately, when it rains it pours. the COVID-19 emergency has widened their crisis and impacted retail SMEs stronger than larger companies for four reasons: First, they don't have financial reserves to survive after few months (Cowling et al., 2020; Martin et al., 2019). Second, there is a prevalence of SMEs in retail, with 70 percent of the workforce in companies of less than 10 employees, being retail one of the high risk sectors in COVID-19 crisis (ILO, 2020), and two thirds of jobs at risk are in SMEs (McKinsey & Company, 2020). Third, most retail SMEs are local microbusinesses (Euro Commerce, 2017), and the global lockdown shut down their business except the services considered essential like groceries. In a survey to 600 UK SMEs in May 2020, 75 percent of them expected to be out of the business in 7 months if their revenues were to be reduced 30 percent (McKinsey & Company, 2020). Finally, small companies are the least prepared of all organizations for crisis, due to their limited planning, financial weakness, and organizational culture, among other reasons (Jones et al., 2008). The risk of a massive closure of SMEs retail business presents a systemic threat to most economies as this kind of companies are predominant in the business ecosystem (Cowling et al., 2020). The landscape is devastating.

Governments provided a rapid response to COVID-19 by preventing liquidity shortages and job losses (Juergensen et al., 2020). Economy moved in few months from survival phase to support for recovery as relative optimism grew and lock down restrictions were softened (OECD, 2020b). On the organizational side, SMEs realize that they should improve their robustness looking ahead, taking new decisions, or reasserting existing ones. The challenges posed by COVID-19 crisis are massive, but such limit situation force companies to look for innovation and new business models and organizations (Seetharaman, 2020).

The objective of this paper is twofold. First, to consider how retail SMEs faced COVID-19 lockdown and what kind of decisions and actions were taken from an organizational and marketing perspective to adapt to restrictions and customer behavior. Second, we provide an intellectual contribution to better understand the challenges that retail SMEs are facing and the consequences for their business activities, to draw insights for their management. We present a simplified framework allowing retail SMEs to confront their internal capabilities during and after the COVID-19 crisis, looking for actions that can help them to prepare for potential threats that can challenge the business situation in the future (Williams et al., 2017).

2. Analysis of the COVID-19 Impact in Retail SMEs

2.1 First Phase of the Crisis: The Lockdown

The rapid evolution of the health crisis during the first weeks of the pandemic, and the rapid lockdown decisions and restrictions taken by governments and institutions, did not let time for companies to get ready for the situation. The depth and spread of the lockdown was not anticipated and has been considered by business scholars as a black swan (Cowling et al., 2020; Taleb, 2007).

During the early moments of the lockdown, the disruption of the business came with days of anticipation, if any. Furthermore, COVID-19 started as a channel crisis for retail, although other kinds of SMEs like manufacturing faced both demand and supply disruptions (Juergensen et al., 2020). From the day before to the day after the lockdown announcement, there was no worsening of the financial market, or a shift in customers preferences, or a new disruptive technology. For retail SMEs, the physical channel had just disappeared. Some retailers where the activity was considered essential could stay open but with important modifications in the customer experience. Goods shortage was generated by irrational stockpiling associated with uncertainty (Sheth, 2020), rather than by a real problem of supply. Some retail SMEs had started their evolution to include the online channel and had a slight advantage, but with a lack of experience and limitations in their processes.

The priority of the health crisis and its control applied also to the organizations. Companies prioritized the wellbeing of employees and measures of confinement and quarantine, increasing dramatically absenteeism and the loss of working hours (ILO, 2020), including opened essential stores, that had to cope with an increasing affluence supported by a reduced staff. These essential stores shown also structural differences in their response when implementing health restriction rules or pick-at-the-store services.

During the lockdown, all kinds of retail SMEs experimented with new channels and new delivery methods. Business to business grocery and meat suppliers were not able to sell to hotels and restaurants due to closures. Therefore, they had to look for new customers and direct sale to final customer in order to keep their business running, forcing them to create Webs or WhatsApp channels and to set home delivery and click and collect options (Fortune Magazine, 2020). Organizational reaction to the lockdown included also rapid modifications in the value proposition. Several fine dining restaurants modified their menus to produce meals that could be delivered in perfect conditions (BBC, 2020).

On their side, customers had suddenly no access to most of their goods suppliers in brick and mortar stores. They had to look for alternative channels and in several cases to alternative providers. Embracing digital technology is one of the consumer habits that has accelerated during the pandemic (Sheth, 2020). Several categories of products have been bought for the first time by new online consumers, creating an increase in the overall online sales from six percent in 2019 to 10 percent during the lockdown (OECD, 2020a). Digital adoption jumped in Europe from 81 percent to 95 percent during the pandemic (McKinsey Digital, 2020). Interestingly, even with groceries

opened during lockdown, online shoppers of such products experimented a rise, showing that changes in demand trends are not only related with channel availability but also with awareness and experience (Seetharaman, 2020). Customers had also to face their own evaluation and situation. The uncertainty of the future economy and the temporary or permanent loss of jobs made them modify their expenses patterns, regardless of the hurdles to consume during the lock down. Customer have not only found new ways to shop but also new brands and providers. Some brands have been more helpful than others and customer will record such information and use it for future consumption decisions (Pantano et al., 2020). In the opened stores, mainly groceries, customers had to endure disrupted customer experiences: long waiting times, social distancing, shortage of essential products, or reduced staff. Such drawbacks were well supported by consumers, as expected in such situations (Pantano et al., 2020).

2.2 Second Phase of the Crisis: The Social Distancing Scenario

Once the total lockdown was lifted, the scenario was not in any way like the one prior to the pandemic. Although brick and mortar shops and restaurants reopened, the customer experience, the customer perception and the business dynamics were very different. We can talk about a second phase of the organizational crisis, or even a different crisis, as companies had to deploy additional actions to cope with this situation.

Putting wellbeing of customers and employees first, SMEs had quickly to modify their stores with new security elements like gel dispenser and screens. Employees have increased the number of their activities as several sanitary actions have to be undertaken. The regulation of most governments left a lot of room to implement things in different ways, and due to the financial scenario, most companies decided to make minimal investments.

Companies reacted in different ways when getting in touch again with their customers. Marketing orientation changed. Main messages were populated by security and health, and all stores focused in informing that it was safe to shop, as hygiene and cleanliness became paramount for customers (Jiang & Wen, 2020; Stanciu et al., 2020).

Customers shifted their priorities for brick-and-mortar shopping experience. Although different profiles behaved in different ways (EY, 2020), they all accepted the limitations that regulations put to their comeback, like longer procedures that included sanitizing to use fitting rooms or prohibition of touching the goods that they used to paw in the past. Such limitations, in time of crisis, are not expected to impact in customer satisfaction (Pantano et al., 2020).

Once reopen, local SMEs took advantage of the caution of consumers to freely roam streets and malls. Nearby businesses were preferred as the risk of contagion seems smaller (Stanciu et al., 2020). Large stores represent in general longer trips and more potential interactions.

3. Management Implications of COVID-19 Crisis for Retail SMEs. An Exploratory Framework

COVID-19 could represent the paradigm of the definition of a global organizational crisis for any kind of company: An unexpected, unlikely, and high impact situation that threatens the future of the organization (Pearson & Clair, 1998). However, from an organizational perspective we see three major differences with the 2008 financial crisis (Soininen et al. 2012; Murphy 2011; Arrieta-Paredes et al., 2020).

First, the sudden lockdown did not let any time for anticipation or preparation to companies. Despite previous attempts of virus-related pandemic, the last as close as 2009 (Jester et al., 2018), and economic leaders' warnings (TED Talks, 2015), governments and companies had no plans in place to face such event. Without previous plans or regulations, and no experience, retailers had to react with the skills, resources and procedures already present in their organizations.

Second, the origin of the economic crisis was sanitary, an event external to the economy without direct impact in the means of production or in consumers (beyond the terrible loss of lives). There were no massive destruction and disruption of production and logistics like in a war. The day one of the lockdown, funding, supply chain and demand were the same than the day before. But lockdown forced a disconnection between retailers and demand. With rare exceptions, consumers had not rationalized what to buy. They simply could not. The economical origin of the crisis was the sudden elimination of the physical channel and the subsequent disruption of supply chains.

Third, the lockdown was a government decision, not an inexorable event. Different governments reacted with different levels of restriction, impacting differently in local economies (Cheng et al., 2020). The heaviness and duration of lockdown and social distancing showed a health first strategy. Most companies took decisions to protect employees and customers beyond the government rules, putting people first. The end of the lockdown allowed retailers to reopen, but this generated new outbreaks. What is the right trade-off between contagions, lives cost and the protection of the economy from collapse? The scales tipped in favor of life protection and society support. SMEs took care of customers and employees by creating a safe environment. This attitude was spotted by customers and is setting new emotional relations between customers and retailers.

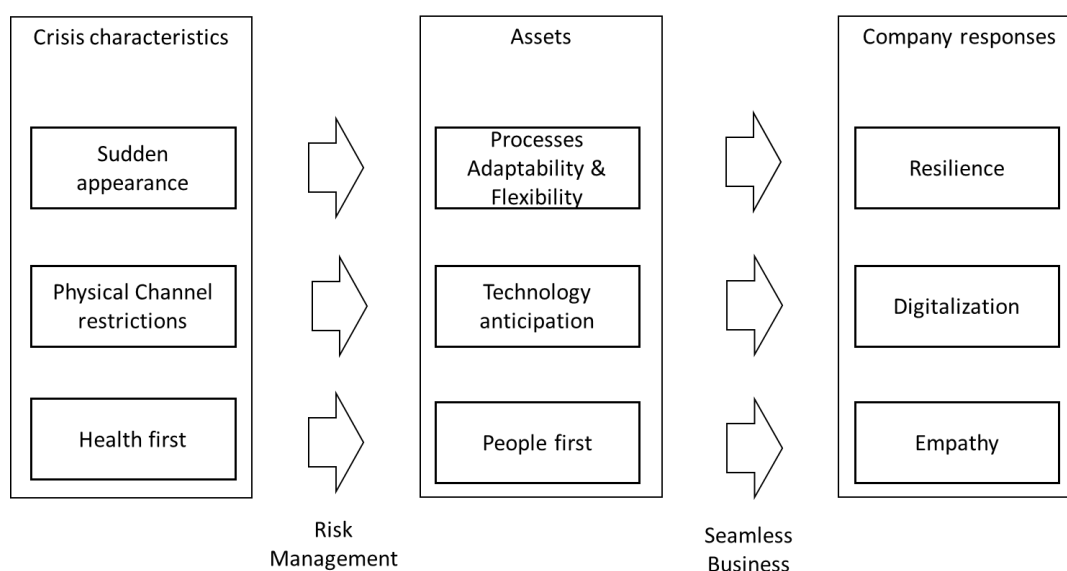
Each of the previous three characteristics require specific structural assets from SMEs to survive the COVID-19 crisis. Figure 1 shows a simplified framework of which management and organization-oriented assets and responses are required to address the main characteristics of the crisis.

The sudden appearance of the crisis put to test the adaptability and flexibility of the processes, as the constant change in restrictions required the implementation of mitigation measures in rather hours than days, improvising workarounds (Sheth, 2020). Such ability to adapt requires changing the way decisions are taken, deviating from existing plans in simple decision processes to avoid delays in the innovations (Williams et al., 2017). For example, some restaurants quickly embraced new channels (from dine-in to home delivery) but also created new menus that could stay fresh when delivered (Seetharaman 2020). Furthermore, implementing such flexible decisions requires

flexible process and quick roll out projects. This flexibility and adaptability are major internal assets of the organizational resilience (Williams et al. 2017). For the purpose of our work, resilience is the ability to “effectively absorb uncertainty, develop situation-specific responses to threats, and ultimately engage in transformative activities so that they can capitalize on disruptive surprises that potentially threaten their survival” (Lengnick-Hall, Beck, and Lengnick-Hall 2011, pp. 248). Resilience is a cornerstone asset of small firms and differs from large companies (Sullivan-Taylor & Branicki, 2011). Resilience must infuse managers and employees’ actions, but also processes and strategies. Although financial resilience is always put first in economic crisis (Cowling et al., 2020), it is an outcome of a visionary strategy that appears from organizational skills. SMEs can have a worse access to financial resources than large firms, but they are more adaptative and flexible than large firms (Vossen, 1998), and they must lever these assets in such unexpected and intense crisis.

Figure 1

Framework for Retail SMEs Response to COVID-19 Crisis



Source: Own elaboration.

With respect to physical channel restriction, the lockdown forced retailers and consumers to look for channels that get around the blocked ones. During a lockdown it is not possible to attend a music concert, eat in a restaurant, or try on and buy clothes; but these activities can have a workaround: The music concert can be broadcasted, the restaurant can introduce home delivery, or the clothes can be bought in an online store. All the alternatives are based in technology and require a digitalization of the operations to keep the business running. Going online does not mean closing brick and mortar stores (Khaskheli et al., 2017), it means using technology to interact with customers in fully transactional relations regardless of the channel used, including phone,

WhatsApp, social networks or web. First data supported this trend: Retailers SMEs in US increased their digital presence from 10 percent to 17 percent in few months (US Chamber of Commerce, 2020).

Furthermore, it is not only about enhancing alternative channels; it is also about preparing digitally the brick-and-mortar stores for a more omnichannel and adapted experience (Lorente-Martínez et al., 2020; Betzing 2018). Once the total lockdown finished and the social distancing started, technology also played an important role in the physical space. Retailers deployed crowd control systems, self-service technology, temperature measurement, or digital signage security campaigns, among others (Security Magazine, 2020). Although the plans for digitalization of SMEs have been on the table for a while already (OECD, 2017), it seems obvious that they will accelerate in the next years due to the crisis (European Commission, 2020; Kim, 2020; Soto-Acosta, 2020).

Finally, the reaction of retailers to the difficult decision to prioritize health over business, and the actions and communications they took, shown their true colors for employees and customers, that react accordingly. 71 percent of consumers claim that they will lose their trust forever in brands that put profit before people (Edelman, 2020). Although a very small group of companies increased prices and made false claims on their products, most of them committed with help and support to the society and employees (He & Harris, 2020). Solving ethical dilemmas, like prioritizing the well-being of customers and employees over the short term profitability, is a characteristic of empathic organizations (Dietz & Kleinlogel, 2014). Empathy can be defined as “the ability to understand other’s feelings in such a way that one can identify with him” (Salari and Nastiezaie 2020, p.53). Research has found that empathy is a key trait for leaders and for employees (Bahadur et al., 2018; Humphrey, 2013) and impact in customers satisfaction (Bahadur et al., 2018). Organizational empathy brings to companies skills to undertake collaborative activities, improve responsibility and arouse pro-social behavior (Salari & Nastiezaie, 2020). On their side, customers have been also much more open to endure non satisfactory experiences due to the context (Pantano et al., 2020). The disruption of the economy model has also accelerated the concern of consumers for the origin and brands of the products they buy (He & Harris, 2020). They are showing now an increased preference for local production and retail that can stay as a trend once the crisis is fully over (Sheth, 2020); this can be leveraged by retail SMEs that are mainly local.

The model presented shows how SMEs can react to the main traits of the COVID-19 crisis, facing the challenges in processes, technology and people with resilience, digitalization, and empathy.

4. Conclusions

The present paper aims to highlight the main organizational responses that retail SMEs required to survive during and after the COVID-19 disruption. We consider resilience, digitalization, and empathy the most relevant organizational responses for the specific challenges that made this crisis different, as presented in the framework of Figure 1. The existence of such responses improves their odds to survive, and therefore our framework has important managerial

consequences, as companies must encourage their development. SMEs that want to be more resilient must review their decision-making processes and the speed to decide and to execute. Although companies can be prepared in different levels for organizational crisis, not all scenarios or types of crises can be completely anticipated. Therefore, as suggested by Williams et al. (2017), it is key to improvise decision making, resource allocation and communication activities. Thanks to their size, SMEs have a relative advantage to behave in this way.

With respect to digitalization, SMEs must catch up in their digitalization processes. The relation with customer needs to shift to omnichannel, leveraging in their brick-and-mortar assets if this fits in their strategy. An omnichannel backend that manages a single online and offline inventory, allowing customers to choose home delivery or pick at store, cannot be improvised. Added to this, the trend towards digitalization of customers is a threat that SMEs, due to their limited resources, must review carefully. Customer will request more and more digital touchpoints, regardless of the presence of the physical touchpoint in the E2E experience. We expect European policies to be focused on supporting retail SMEs to go online and maintain some social distancing measures (OECD, 2020b, 2020a).

In order to leverage empathy, SMEs must preserve any improvement obtained in their emotional relationship with customers during the pandemic. We share the view of He and Harris (2020) that the bond with retailers will stay in the long run and give more chances to improve the relationship with consumers. Once the health crisis is eventually controlled or mitigated, we expect the regulation to keep habits that should protect us from new outbreaks or new virus-related events. Such regulation will deepen in the emerging consumer habits and therefore we expect the post COVID-19 consumer trends to stay. Consumer satisfaction perspective will probably also be modified. Both the new regulation and the experience during the pandemic can change the perception of situations that were negative before the crisis, like waiting times, as anticipated by Pantano et al. (2020).

We encourage retail SMEs to undertake adapted contingency and continuity plans, although their perception is that their size do not entail such need (Sullivan-Taylor & Branicki, 2011). The effort for both firms and institutions must focus on developing guidance and policies to improve resilience. It will be easier if measures are closely related with their mainstream business and not seen as an extra concern (Jones et al., 2008). Considering this COVID-19 crisis as an opportunity may be seen offensive due to the high cost in lives and wealth worldwide. Nevertheless, as retailers were already immersed in the eCommerce transformation, they have to take this chance to accelerate the decisions on projects that should have been running prior to the COVID-19 crisis, catching up in the transformation that was happening and improving the key organizational characteristics that will allow them to cope better with further disruptions.

This work presents some limitations. First, we have focused on management aspects, disregarding the financial implications of the crisis. Even the strongest organizational assets require a financial viability. Further research should be done to see how our recommendations apply to retail SMEs according to their financial situation. Second, as shown by the July 2020 OECD report (2020a), there

is a large casuistry around the globe of policies and government actions, that will require a detailed analysis to raise more categorical conclusions.

This research represents a first theoretical approach to the core elements required by a retail SME to survive in a crisis such as COVID-19. As findings are driven mainly by observation and first studies, it opens several avenues of research to delve into the three main characteristics: Resilience, digitalization, and empathy. Our work also present inputs for SMEs to analyze current organizational challenges and possible paths to managerial responsiveness. We truly hope that our modest contribution may bring them some help to endure this difficult path to overcome the effects of the pandemic.

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New coordinates regarding the Internet of Things

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Abstract

This article presents a brief theoretical examination of the Internet of Things phenomenon and its promising future prospects.

Key words

Consumer; Internet of Things; future; business; advertising.

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1. New coordinates regarding the Internet of Things

The Internet of Things (IoT) may seem like a phenomenon out of a science fiction movie. However, it is a reality that is widespread in the everyday world (Razzak, 2012). Turning on television with the help of a virtual assistant or changing music with a simple request are some of the tasks that can be performed in a smart home (Srinivasan et al., 2019). With each passing day, the number of activities that the IoT is involved with multiplies, without a limit in sight. In 2020, it was estimated that there were 31,000 million devices in operation that could be included in the IoT.

Next, we explore some types of connected objects that can be found today. In most cases, these objects are invisible to people (Gigli & Koo, 2011). We all have at home, without being aware, a number of devices that meet the definition. As the implementation of 5G technology advances, the IoT will have, if possible, an even more important role. It is a key concept for improving the quality of life of people and offering increasingly better services (Butler, 2006).

Everything we analyze is related to the digital interconnection of the objects we use in our daily lives (López Jiménez, Dittmar & Vargas Portillo, 2021a). The term IoT was used, for the first time, by Kevin Ashton at the MIT Auto-ID Center. He stated that if, for example, all devices were connected to the internet and had identification sensors, there would be no problems related to the expiration date of medicines or food. Kevin Ashton used the expression publicly in an event that generated great excitement. However, we must go back to 1990 to see the first IoT gadget in history, when John Romkey presented a toaster that could be remotely turned on and off.

The IoT offers a series of unquestionable benefits on a day-to-day basis. Among them, we highlight the following: the possibility of connecting a computer to the internet and enjoying all the associated advantages; greater speed in the exchange of information; better decision-making; more automation; and energy savings.

The economic factors must also be taken into consideration. By using less energy, we pay less. The devices are also able to alert us to possible failures so that we can attend to these issues before they become serious. Any device that can connect to the internet through a network or, failing that, to another device through Bluetooth that offers this type of connectivity is considered to belong to the IoT (López Jiménez, Vargas Portillo & Dittmar, 2022a).

When IoT devices take the form of accessories that we can wear, they are called wearables. Through small devices with integrated sensors, it is possible to collect data. That information is sent to smartphones. The most relevant applications of wearables can be found in sports and, more specifically, in some clothing items.

Health control is one of the aspects in which the IoT is most useful. In this sense, we can highlight the smart scales that are capable of providing a multitude of data. Within the latter, we can, as an example, indicate the percentage of body fat, bone mass, water, or metabolic age. There are various devices with which medical professionals can observe the vital signs of patients without having to go through a consultation, known as real-time health systems.

Likewise, this technology has allowed us to cook in a healthier and simpler way, as demonstrated by connected oil-free air fryers. To date, there are smart coffee makers, fryers, and even pressure cookers that make cooking easier.

The IoT has also reached the universe of light switches. This allows one, through a mobile phone or a virtual assistant, to turn the lights on and off, change their color, and regulate the light intensity. The IoT is also present in garbage cans. This signals when the bag is full to automatically seal it and replace it, all by virtue of sensors.

Another essential element for enjoying a connected home is a smart refrigerator. Moreover, smart thermostats can activate a home heating or air conditioning system if the temperature drops below or exceeds a predetermined value (the comfort temperature). Undoubtedly, this is an ideal way to save energy, protect the environment, and spend less.

The world of connected devices has moved from the home to the garden with intelligent systems that take care of the lawn at different levels: cutting, watering, and monitoring, all automatically, remotely, and planned.

The automotive industry has focused on developing safer and more efficient cars, but in recent years, attention has also been focused on improving the experience of users inside the vehicle. All the major brands in the sector, globally, have connected car systems, which not only allow relation to other objects but also turn the car into a mobile IoT device.

IoT technology has reached physical stores, making work easier and the customer more satisfied. The main novelty is the introduction of sensors in all types of common elements in a store with the mission of studying the behavior of buyers. There is a wide range of situations in which the IoT can intervene within a supermarket (Nowland, Necka & Cacioppo, 2018).

However, although the IoT has numerous advantages, it also has potential disadvantages. Hackers have specialized knowledge about attacking these devices to access their data or industrial control systems. There are countless sensors and IoT computing devices that are connected to a large part of the global infrastructure (López Jiménez, Dittmar & Vargas Portillo, 2022b). Most of these devices were designed before hackers and electronic intrusions entered our consciousness. Now, the security and privacy of the IoT must be the most important factor (López Jiménez, Dittmar & Vargas Portillo, 2021b).

The Cambridge Analytica scandal highlighted the danger of mass collection and use in manipulating the decisions of its holders (Hinds, Williams & Joinson, 2020). The company used data obtained from different sources, including those of millions of Facebook users, to, among other things, employ targeted advertising and thereby influence the United States elections and change the direction of the vote for the separation of the United Kingdom from the European Union. It obtained the data, fraudulently, through this social platform where users interact and voluntarily share personal information. We must be fully aware that the information in our home is managed by the companies that provide the devices we use. We should not think that we are buying a smart watch but that we are hiring the service of someone to monitor our behavior. It is necessary to establish security measures that, due to the large amount of data that these devices can store and

because of how compromised the information can be, prevent unauthorized access and guarantee the confidentiality, integrity, and availability of the data.

There is no going back. We now live in an interconnected world. Around us, there is a huge number of devices that communicate with each other, linked by a network of networks. In short, with an internet connection and a mobile phone, we can open garage doors, turn on light bulbs remotely, lower, raise, and close blinds, or carry out any other process in an automated way, as long as we have the appropriate connected device. Although the digital transformation of thousands of companies was exponential during the pandemic, this does not mean that we can forget the negative impacts that this could generate, so proceeding in a conscious way and with friendly technology provides added value to the evolutionary process.

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